

List of Publication (Aug 18, 2016)

Hideo HOSONO

1. Citation Statistics Data

<from Web of Science>

Sum of the Times Cited ~43,670

h-index 88

<from Google Scholar>

Sum of the Times Cited ~68,840

h-index 108

2. Journal Statistics

Nature	5	
Nature sister Journals	15	
Science	3	
Proc.Nat.Acad.Sci.USA	3	
JACS	22	
Physical Review Letters	19	
Physical Review B	103	
Applied Phys.Lett	90	
J.Appl.Phys.	56	
Advanced Materials	9	

3. Original Papers (Refereed Journal papers)

★ most significant

1978

1. H.Kawazoe, H.Hosono, and T.Kanazawa, Electronic Structure and Properties of Oxide Glasses, (I) Π^- Electron distribution on alkali borate glass networks; *J.Non-Cryst.Sol.*, 29, 159-171(1978).
2. H.Kawazoe, H.Hosono and T.Kanazawa, Electronic Structure and Properties of Oxide Glasses (II) Basicity measured by Cu^{2+} ion probe in $\text{Na}_2\text{O-P}_2\text{O}_5$, $\text{K}_2\text{O-B}_2\text{O}_3$ and $\text{K}_2\text{SO}_4\text{-ZnSO}_4$ glasses; *J.Non-Cryst.Sol.*, 29, 173-186(1978)
3. H.Kawazoe, H.Hosono, and T.Kanazawa, ESR Detection of Immiscibility in $\text{K}_2\text{O-CaO-B}_2\text{O}_3$ Glasses; *J.Non-Cryst.Sol.*, 29, 249-252 (1978).
4. H.Kawazoe, M.Nishino, H.Hosono, K.Isozaki, K.Ametani, M.Imai and T.Kanazawa, The Formation of Trapped Electron upon the Thermal Dehydration-Condensation of Hydrated Hydrogenorthophosphate; *Bull.Chem.Soc.Jpn.*, 51, 2882-2885(1978).
5. H.Kawazoe, H.Hosono, and T.Kanazawa, Optical Absorption of Ni (II) complex in $\text{Na}_2\text{O-K}_2\text{O-SiO}_2$ Glasses and Change in the Coordination of the Complex upon Annealing; *J.Ceram.Soc.Jpn.*, 86, 567-9 (1978).

1979

6. 川副博司、細野秀雄、金澤孝文、金属イオンプローブ法による酸素酸塩ガラスのキャラクタリゼーション、*窯業協会*, 87, 1-12 (1979).
7. H.Kawazoe, H.Hosono, and T.Kanazawa, ESR-Detection of Immiscibility in $\text{K}_2\text{O-BaO-B}_2\text{O}_3$ Glasses; *J.Ceram.Soc.Jpn.*, 87, 237-41 (1979).
8. H.Hosono, H.Kawazoe, and T.Kanazawa, ESR and Optical Absorption of Cu^{2+} in $\text{Na}_2\text{O-SiO}_2$ Glasses; *J.Non-Cryst.Sol.*, 33, 103-115 (1979).
9. H.Hosono, H.Kawazoe, and T.Kanazawa, Behavior of VO^{2+} as a Spectroscopic Probe for Characterization of Glasses; *J.Non-Cryst.Sol.*, 33, 125-129 (1979).
10. H.Hosono, H.Kawazoe, and T.Kanazawa, ESR and Optical Absorption of Cupric Ion in Borate Glasses; *J.Non-Cryst.Sol.*, 34, 339-356 (1979).

1980

11. H.Kawazoe, H.Kokumai, H.Hosono and T.Kanazawa, Micro-heterogeneities in $\text{R}_2\text{O-RO-B}_2\text{O}_3$ Glasses; *J.Non-Cryst.Sol.*, 38 / 39, 717-722 (1980).
12. H.Kawazoe, H.Hosono, H.Kokumai, J.Nishii and T.Kanazawa, Structural Distribution and Rigidity of the Glass Network Determined by EPR of Cu^{2+} ; *J.Non-Cryst.Sol.*, 40, 291-303 (1980).
13. H.Hosono, H.Kawazoe and T.Kanazawa, ESR of Vanadyl Ions in Phosphate Glasses; *J.Non-Cryst.Sol.*, 37, 427-432 (1980).
14. H.Hosono, J.Nishii, H.Kawazoe and T.Kanazawa, ESR Spectra of Pb^{3+} and Ag^0 in Glass; *J.Phys.Chem.*, 84, 2316-2319 (1980).

1981

15. H.Hosono, H.Kawazoe, and T.Kanazawa, ESR of Cu^{2+} and Tl^{2+} in Thallous Borate Glasses; *J.Mater. Sci.*, 16, 57-64 (1981).
16. H.Hosono, H.Kawazoe, J.Nishii and T.Kanazawa, Effect of Randomness on ESR Hyperfine Structure of Cd^{2+} ; *J.Non-Cryst.Sol.*, 44, 149-155 (1981).
17. K.Isozaki, H.Hosono, H.Kokumai, H.Kawazoe and T.Kanazawa, Co-ordination of Mg^{2+} in $\text{MgO-P}_2\text{O}_5$ Glasses; *J.Mater.Sci.*, 16, 2318-9 (1981).

1982

18. H.Hosono, H.Kawazoe and T.Kanazawa, Detection and Analysis of Anisotropic Tl^{2+} Centers in Glass; *J.Phys.Chem.*, 86, 161-164 (1982).
19. H.Kawazoe, H.Hosono and J.Nishii, Solution of Spin-Hamiltonian with Orthorhombic hf and g Tensors ($I = S = 1/2$). I. Theory; *J.Chem.Phys.*, 76, 3422-3428 (1982).
20. H.Kawazoe, H.Hosono, J.Nishii and T.Kanazawa, Solution of Spin-Hamiltonian with Orthorhombic hf and g Tensors ($I = S = 1/2$). II. Application to PO_4^{4-} and Tl^{2+} Centers in Anisotropic Matrices; *J.Chem.Phys.*, 76, 3429-3432 (1982).
21. H.Hosono, H.Kawazoe and T.Kanazawa, Coordination of Pb^{2+} in Oxide Glasses Determined by ESR and Properties of Binary Lead Glasses; *J.Ceram.Soc.Jpn.* (窯業協会誌), 90, 544-551 (1982).
22. H.Hosono, H.Kawazoe and T.Kanazawa, ESR Detection of Pressure-induced Structural Changes Around Pb^{2+} and Cd^{2+} in Soda Borate Glasses; *Solid State Commun.*, 43, 769-771 (1982).
23. H.Kawazoe, H.Hosono, and J.Nishii, Photon-induced ESR Centers Associated with p-Block Elements in Oxide Glasses; *J.Non-Cryst.Sol.*, 52, 129-133 (1982).
24. H.Hosono, H.Kawazoe and T.Kanazawa, Effect of Quenching Rate and Annealing on the ESR of Cu^{2+} and γ -Induced Cd^{2+} in Low Alkali Borate Glasses; *J.Non-Cryst.Sol.*, 55, 3-14 (1982).
25. H.Hosono, H.Kawazoe, J.Nishii and T.Kanazawa, Elucidation of the Stereochemistry of Tl^{2+} in Oxide Glasses by Electron Spin Resonance Spectroscopy; *J.Non-Cryst.Sol.*, 51, 217-240 (1982).
26. H.Kawazoe, J.Nishii, H.Hosono, T.Kanazawa and H.Imagawa, ESR Studies of Radiation-induced Tin Centers in Oxide Glasses; *J de Phys.*, 43, C9-155-8 (1982).
27. H.Imagawa, H.Hosono and H.Kawazoe, ESR Studies of Arsenic-associated Centers in Oxide Glasses Produced by Gamma-Irradiation; *J de Phys.*, 43, C9-169-72 (1982).
28. H.Hosono, Y.Abe and H.Kawazoe, ESR Studies on Stereochemistry of Thallous Ion in Oxide Glasses; *J de Phys.*, 43, C9-159-63 (1982).

1983

29. H.Hosono, Y.Abe, H.Kawazoe and H.Imagawa, Photochemical Reaction in a Reduced Soda-Lime-Silica Glass Containing Ce^{3+} and As^{3+} ; *J.Amer.Ceram.Soc.*, 66, C192-3 (1983).

1984

30. H.Hosono, Y.Abe, H.Kawazoe and H.Imagawa, Solarization Mechanism of Glass Containing Ce^{3+} and As^{5+} ; *J.Non-Cryst.Sol.*, 63, 357-363 (1984).
31. H.Hosono, Y.Abe, H.Kawazoe and T.Kanazawa, ESR Lineshape of Cu^{2+} and γ -induced

- Cd⁺ in Soda Borate Glasses; *J.Ceram.Soc.Jpn.*, 92, 350-9 (1984).
32. Y.Abe, T.Kasuga, H.Hosono, and K. de Groot, Preparation of High-Strength Calcium Phosphate Glass-ceramics by Unidirectional Crystallization; *J.Amer.Ceram.Soc.*, 67, C142-4(1984).
 33. C.P.A.T.Klein, Y.Abe, H.Hosono, and K.de Groot, Different Calcium Phosphate Bioglass Ceramics Implanted in Rabbit Cortical Bone. An Interface Study; *Biomater.*, 5, 362-4 (1984).

1985

34. H.Hosono, T.Satake, M.Hosoe and Y.Abe, Reversible Optical Changes of Amorphous Red Phosphorus in Reduced Phosphate Glasses; *J.Amer.Ceram.Soc.*, 68, 7-9 (1985).
35. H.Hosono and Y.Abe, Paramagnetic Centers Localized on a Phosphorus Ion in γ -irradiated Metaphosphate Glasses; *J.Ceram.Soc.Jpn.*, 93, 217-224 (1985).
36. H.Hosono, S.Kawamura and Y.Abe, Preferred Molecular Orientation at Crystal Growth Front in $\text{Ca}(\text{PO}_3)_2$ Glass; *J.Mater.Sci.Lett.*, 4, 244-246 (1985).
37. H.Hosono, Y.Abe and H.Kawazoe, ESR Study of Radiation Induced Paramagnetic Defect Centers Localized on a Phosphorus in Binary Phosphate Glasses; *J.Non-Cryst.Sol.*, 71, 261-267(1985).
38. H.Hosono, K.Yamazaki and Y.Abe, Dopant-free Ultraviolet-sensitive Calcium Aluminate Glasses; *J.Amer.Ceram.Soc.*, 68, C304-5 (1985).

1987

39. H.Hosono and Y.Abe, An Oxygen-effervescent Aluminate Glass, *J.Amer.Ceram.Soc.*, 70, C38-9 (1987).
40. H.Hosono, Y.Shimizu, H.Ohsato and Y.Abe, Effect of Crystallization Temperature and Additives on the Orientation Degree of Calcium Phosphate Glass-ceramics Prepared by Unidirectional Crystallization, *J.Mater.Sci.Lett.*, 6, 394-396 (1987).
41. H.Hosono and Y.Abe, Occurrence of Superoxide Radical Ion in Crystalline $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Prepared via Solid-State Reactions, *Inorg.Chem.*, 26, 1192-1195 (1987).
42. H.Hosono, K.Yamazaki and Y.Abe, Photosensitive Characteristics of Dopant-free, Ultraviolet-sensitive Calcium Aluminate Glasses, *J.Amer.Ceram.Soc.*, 70, 867-70 (1987).
43. H.Hosono, K.Yamazaki and Y.Abe, Photosensitive Mechanism of Dopant-free, Ultraviolet-sensitive Calcium Aluminate Glasses, *J.Amer.Ceram.Soc.*, 70, 870-73 (1987).
44. Y.Abe, H.Hosono and M.Hosoe, Development of Calcium Phosphate Glass-ceramics for Surgical and Dental Use, *Phos. & Sul.*, 30, 337-40 (1987).
45. C.P.A.T.Klein, Y.Abe, H.Hosono and K.de Groot, Comparison of Calcium Phosphate Glass-ceramics with Apatite Ceramics Implanted in Bone. An Interface Study II, *Biomater.*, 8, 234-6 (1987).
46. H.Hosono and Y.Abe, Effects of Melting Atmosphere and heat Treatment on the Photosensitivity of Dopant-free, UV-sensitive Calcium Aluminate Glasses, *Defects and Defect Data*, 53 / 54, 139-44 (1987).
47. H.Hosono and Y.Abe, Photosensitivity and Structural Defects in Dopant-free Ultraviolet-sensitive Calcium Glasses, *J.Non-Cryst.Sol.*, 95 / 96, 717-24 (1987).
48. K.Kawashima, H.Hosono, Y.Abe, S.Fujitsu and H.Yanagida, Light-induced Optical Changes in Amorphous Red Phosphorus, *J.Non-Cryst.Sol.*, 95 / 96, 741-48 (1987).
49. K.Arai, H.Namikawa, Y.Ishii, H.Imai, H.Hosono and Y.Abe, Nature of Doping into Pure Silica Glass by Plasma Torch CVD, *J.Non-Cryst.Sol.*, 95 / 96, 609-16(1987).

1988

50. Y.Abe, H.Hosono, M.Hosoe, J.Iwase and Y.Kubo, Superconducting Glass-ceramic Rods in BiCaSrCu₂O_x Prepared by Crystallization under a Temperature Gradient, *Appl. Phys. Lett.*, 53, 1341-42 (1988).
51. H.Imai, K.Arai, H.Imagawa, H.Hosono and Y.Abe, Two Types of Oxygen-deficient Centers in Synthetic Silica Glass, *Phys. Rev.*, B38, 12772-75 (1988).
52. K.Arai, H.Imai, H.Hosono, Y.Abe and H.Imagawa, Two-Photon Processes in Defect Formation by Excimer lasers in Synthetic Silica Glass, *Appl. Phys. Lett.*, 53, 1891-93 (1988).
53. Y.Abe, H.Hosono, Y.Ohta and L.L.Hench, Protonic Conduction in Oxide Glasses: Simple relations between electrical conductivity, activation energy, and the O-H bonding state, *Phys. Rev.*, B38, 10166-69 (1988).
54. H.Hosono and Y.Abe, Photochromism of Reduced calcium Aluminate Glasses, *Mater. Res. Bull.*, 23, 171-176 (1988).

1989

55. H.Hosono and Y.Abe, Temperature Dependence of Infrared Absorption Spectra of Hydroxyl Groups in Soda Germanate Glasses, *J. Amer. Ceram. Soc.*, 72, 44-48 (1989).
56. H.Hosono, T.Kamae and Y.Abe, Electrical Conduction in Magnesium Phosphate Glasses Containing Heavy Water, *J. Amer. Ceram. Soc.*, 72, 294-97 (1989).
57. 川島孝一、細野秀雄、阿部良弘、アモルファス赤リンの光ブリーチング現象 (Photobleaching in Amorphous Red Phosphorus), *セラミックス論文誌* 97, 346-50 (1989).
58. 川島孝一、細野秀雄、阿部良弘、アモルファス赤リンの光ブリーチング機構 (Photobleaching Mechanism in Amorphous Red Phosphorus), *セラミックス論文誌*, 97, 351-54 (1989).
59. 川島孝一、丁金珠、細野秀雄、阿部良弘、還元リン酸塩ガラスの熱着色-退色の DTA による検討 (DTA Studies for Thermochromism and Thermal Bleaching in Reduced Phosphate Glasses) *セラミックス論文誌*, 97, 823-27 (1989).
60. H.Hosono, Z.Zhang and Y.Abe, Porous Glass-ceramic in the CaO-TiO₂-P₂O₅ System, *J. Amer. Ceram. Soc.*, 72, 1587-90 (1989).
61. Y.Higashida, H.Yokoyama, K.Michishita, Y.Kubo, H.Yoshida, Y. Abe and H.Hosono, Magnetic Measurements of Superconducting Glass-ceramic Fine Rods in BiCaSrCu₂Al_{0.5}O_x Prepared Under a Temperature Gradient, *Appl. Phys. Lett.*, 55, 1578-80 (1989).
62. Y.Abe, H.Arakawa, M.Hosoe, Y.Hikichi, J.Iwase, H.Hosono and Y.Kubo, Superconducting glass-ceramic Fine Rods in BiCaSrCu₂Al_{0.5}O_x Prepared Under a Temperature Gradient - T_c and the Texture of Specimen -, *Jap. J. Appl. Phys.*, 28, L1929-30 (1989).
63. H.Hosono and R.A.Weeks, Structural Defects in Chromium-Ion-Implanted Vitreous Silica, *Phys. Rev.*, B40, 10543-9 (1989).

1990

64. H.Hosono and R.A.Weeks, Bleaching of Peroxy Radical in SiO₂ Glass with 5 eV Light, *J. Non-Cryst. Sol.*, 116, 289-292 (1990).
65. H.Hosono, R.A.Weeks, H.Imagawa and R.A.Zuhr, Formation of Oxygen-deficient Type Structural Defects and State of Ions in SiO₂ Glasses Implanted with Transition Metal Ions,

- J.Non-Cryst.Sol.*, 120, 250-255 (1990).
66. G.Whichard, H.Hosono, R.A.Weeks , R.A.Zuhr and R.H.Magruder, Electron paramagnetic resonance spectroscopy of titanium-ion-implanted silica, *J.Appl.Phys.*, 67, 7526-30 (1990).
 67. H.Hosono and Y.Abe, Properties and Mechanism of Solarization in As-doped Soda-Lime-Silica Glasses with Ultraviolet Radiation, *J.Non-Cryst.Sol.*, 125, 98-106 (1990).
 68. H.Hosono, N.Asada and Y.Abe, Properties and Mechanism of Photochromism in Reduced Calcium Aluminate Glasses, *J.Appl.Phys.*, 67, 2840-47 (1990).
 69. H.Hosono, Y.Sakai, M.Fasano and Y.Abe, Preparation of Monolithic Porous Titania-silica Ceramics, *J. Am. Ceram. Soc.*, 73, 2536-38 (1990).
 70. H.Hosono and Y.Abe, Porous $\text{NaTi}_2(\text{PO}_4)_3$ Glass-ceramics, *J.Electrochem.Soc.*, 137, 3149-51 (1990).
 71. K.Kawashima, H.Hosono and Y.Abe, Effects of Composition on the Rates of Photodarkening and Silver Photodoping in Amorphous P-Se Films, *Appl.Phys.Lett.*, 57, 1596 (1990).
 72. K.Kawashima, J.Z.Ding, H.Hosono and Y.Abe, Electrical Properties of Silver Photodoped Amorphous Red Phosphorus, *Phos. & Sulf.*, 51/52, 157-160 (1990).
 73. Y.Abe, H.Hosono, Y.Hikichi and L.L.Hench, Protonic Conduction in PbO-SiO_2 Glasses: A Quantitative Estimation , *J.Mat.Sci.Lett.*, 9, 1443-44 (1990).
 74. Y. Abe, H. Hosono, T. Kamae and K. Kawashima, Protonic conduction and O-H Bonding state in Phosphate Glasses, *Phos.Sykf.&Silicon.*, 51/52, 113-116(1990)

1991

75. H.Hosono and Y.Abe, Fast Lithium Conducting Glass-ceramics in the $\text{Li}_2\text{O-CaO-TiO}_2\text{-Al}_2\text{O}_3\text{-P}_2\text{O}_5$ System, *Solid State Ionics*, 44, 293-297(1991).
76. T.Suzuki, M.Toriyama, H.Hosono and Y.Abe, Application of a Microporous Glass-Ceramics with a Skeleton of $\text{CaTi}_4(\text{PO}_4)_6$ to Carriers for Immobilization of Enzymes, *J.Ferment.Bioeng.*, 72, 384-391(1991).
77. H.Hosono, Y.Abe, K.Oyoshi and S.Tanaka, Effects of Coimplantation of Silicon and Nitrogen on the Structural Defects and Si-N Bond Formation in Silica Glasses, *Phys.Rev.B* 43, 11966-970 (1991).
78. H.Hosono, Fourier Transform Infrared Attenuated Total Reflection Spectra of Ion-implanted Silica Glasses, *J.Appl.Phys.*, 69, 8079-82 (1991).
79. H.Imai, K.Arai, H.Hosono, Y.Abe, T.Arai and H.Imagawa, Dependence of defects Induced by Excimer Laser on Intrinsic Structural Defects in Synthetic Silica Glasses, *Phys.Rev. B* 44, 4812-18 (1991).
80. H.Hosono, Y.Abe, H.Imagawa, H.Imai and K.Arai, Experimental Evidence for the Si-Si Bond Model of the 7.6-eV Band in SiO_2 Glass, *Phys.Rev.B* 44, 12043-45 (1991).
81. M.Kotama, K.Nakanishi, H.Hosono, Y.Abe and L.L.Hench, Evidence for Protonic Conduction in Alkali-free Phosphate Glasses, *J. Electrochem.Soc.*, 138, 2928-30 (1991).
82. Won-Hyuk Lee, H. Hosono, K. Nakamura and Y. Abe, Effect of Cooling Rate of $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_x$ Melt on the Superconducting Properties of the Resultant Polycrystalline Ceramics, *Physica C*, 185-189, 2389-2390(1991)

1992

83. H.Hosono, Structural Defects and State of Implanted Ions in Silica Glasses Implanted with Silicon and/or Nitrogen Ions, *Nucl.Instr.Meth., B* 65, 375-379 (1992).

84. H.Hosono and Y.Abe, Porous Glass-ceramics with Skeleton of Two-dimensional layered Crystal $\text{Ti}(\text{HPO}_4)_2 \cdot 2\text{H}_2\text{O}$, *J.Non-Cryst.Sol.*, 139, 86-89 (1992).
85. H.Hosono, Y.Sakai and Y.Abe, Pore Size Control in Porous Glass-ceramics with Skeleton of NASICON-type Crystal $\text{CaTi}_4(\text{PO}_4)_6$, *J.Non-Cryst.Sol.*, 139, 90-92 (1992).
86. H.Hosono, Y.Abe and K.Deguchi, Proton-magic-angle-spinning NMR and IR Absorption Spectra of Strongly Hydrogen-bonded Hydroxyl Groups in Oxide Glasses, *J.Non-Cryst.Sol.*, 142, 103-107 (1992).
87. W.H.Lee, H.Hosono and Y.Abe, J Concentrations of Residual Carbonate Ions in the Bi-Sr-Ca-Cu-O Glasses, *Amer.Ceram.Soc.*, 75, 1658-61 (1992).
88. H.Hosono, H.Fukushima, Y.Abe, R.A.Weeks and R.A.Zuhr, Cross-sectional TEM Observation of Copper-implanted SiO_2 Glasses, *J.Non-Cryst.Sol.*, 143, 157-61 (1992).
89. K.Arai, H.Imai, J.Isoya, H.Hosono, Y.Abe and H.Imagawa, Evidence for Pair Generation of an E' center and a Nonbridging Oxygen-hole Center in Gamma-ray-irradiated Fluorine-doped Low-OH Synthetic Silica Glasses, *Phys.Rev., B* 45, 10818-821(1992).
90. Y.Abe, H.Hosono, W.H.Lee and T.Kasuga, Superconducting Ceramics of $\text{Bi}_2\text{Sr}_2\text{Cu}_2\text{O}_x$ Prepared by Heating in a Vacuum-sealed Vessel, *Appl.Phys.Lett.*, 60, 2300-02(1992).
91. H.Hosono, Y.Suzuki, Y.Abe, K.Oyoshi and S.Tanaka, Formation of Nanoscale Phosphorus Colloids in Implanted SiO_2 Glass, *J.Non-Cryst.Sol.*, 142, 287-290 (1992).
92. H.Hosono, Y.Abe and N.Matsunami, Coalescence of Nanosized Copper Colloid Particles Formed by Cu-implanted SiO_2 Glass by Implantation of Fluorine Ions: Formtion of Violsf Copper Colloids, *Appl.Phys.Lett.*, 60, 2613-15 (1992).
93. H.Hosono and Y.Abe, Porous Glass-ceramics with a Skeleton of the Fast Li-conducting Crystal, $\text{Li}_{1+x}\text{Ti}_{2-x}\text{Al}_x(\text{PO}_4)_3$, *J.Amer.Ceram.Soc.*, 75, 2862-64 (1992).
94. H.Hosono, Y.Abe, D.L.Kinser, R.A.Weeks and H.Kawazoe, Nature and orogin of the 5-eV band in $\text{SiO}_2\text{: GeO}_2$ Glasses, *Phys. Rev., B* 46, 11445-51 (1992).
95. H.Hosono, Y.Ikuhara, Y.Abe and R.A.Weeks, Formation of Copper Nanoscale Particles in Implanted SiO_2 Glasses, *J.Mater.Sci.Lett.*, 11, 1257-59 (1992).
96. Y.Abe, K.Hirata, H.Hosono and Y.Kudo, Effects of Al_2O_3 additives on the Formation of Superconducting Whiskers (2212 phase) in Melt-quenched $\text{BiSrCaCu}_2\text{O}_x$, *J.Mater.Res.*, 7, 1599-1601 (1992).
97. H. Hosono, Y.Abe, Y.L.Lee, T.Tokisaki and A.Nakamura, Large Third-order Optical Nonlinearity of Nanometer-sized amorphous Semiconductor: Phosphorus Colloids in SiO_2 Glass by Ion Implantation, *Appl.Phys.Lett.*, 61, 2747-49 (1992).

1993

98. H.Hosono, K.Imai and Y.Abe, Cation Exchange Properties of $\text{LiTi}_2(\text{PO}_4)_3$ and Synthesis of its Microporous Materials via Glass, *J.Electrochem.Soc.*, 140, L7-9 (1993).
99. Y.Abe, H.Hosono, W.H.Lee, M.Hosoe, K.Nakamura and E.Inukai, New Method for Fabrication of Superconducting Pipe in Bi-Sr-Ca-Cu-O System, *J.Mater.Res.*, 8, 1-4 (1993).
100. N.Matsunami and H.Hosono, Anomalous Fringe Pattern of Ag Colloids in Phosphate Glasses by Implantation, *Nucl. Instr. Meth., B* 80/81, 1233-1236(1993).
101. H.Imai, K.Arai, J.Isoya, H.Hosono, Y.Abe, and H.Imagawa, Generation of E' centers and oxygen Hole Centers in Synthetic Silica Glasses by g-irradiation, *Phys.Rev., B* 48, 3116-3123(1993).
102. H.Hosono, H.Kawazoe and K.Muta, Preferred Concentration Enhancement of Photobleachable Defects Responsible for 5 ev Optical Absorption Band in $\text{SiO}_2\text{: GeO}_2$ Glass Preform by Heating in a H_2 atmosphere, *Appl.Phys.Lett.*, 63, 479-481(1993).

103. N.Matsunami and H.Hosono, Colloid Formation Effects on Depth Profile of Implanted Ag in SiO₂ Glass, *Appl.Phys.Lett.*, 63, 2050-52(1993).
104. H.Hosono and N.Matsunami, Structural Defects and chemical Interaction of Implanted Ions with Substrate Structure in Amorphous SiO₂, *Phys.Rev., B* 48, 13469-13473(1993).
105. H.Hosono, Simple Criterion on Colloid Formation in SiO₂ Glasses by Ion Implantation, *Jpn.J.Appl.Phys.*, 32, 3892-94(1993).
106. M.Yanagisawa, I.Sugiura, T.Hotta, J.Tsubaki and H.Hosono, Discoloration of Alumina Ceramics with Ultraviolet Radiation and Elucidation of its Mechanism, *J.Ceram.Soc. Jpn*, 101, 1189-91(1993).
107. Y.Abe, H.Hosono, W.H.Lee and T.Kasuga, Electrical Conduction due to Protons and Alkali-metal Ions in Oxide Glasses, *Phys.Rev., B* 48, 15621-625(1993).
108. H. Hosono, K. Imai and Y. Abe, Integrated microporous glass-ceramics with skeleton of LiTi₂(PO₄)₃ with Three-dimensional Network structure and of Ti(HPO₄)₂·2H₂O with Two-Dimensional Layered structure, *J. Non-Cryst. Sol.*, 162, 287-293(1993)
109. Y. Abe, H. Hosono, T. Kasuga and M. Nagase, Generation of Active Oxygen Species on Reaction Between Ceramics in CaO-SiO₂-P₂O₅ System and Polymorphonuclear Cells, *Phos.Sulf.Silicon.*, 76, 243-246(1993)
110. T. Kasuga, H. Hosono, Y. Abe, Bioceramics Composed of Calcium Polyphosphate Fibers, *Phos.Sulf.Silicon.*, 76, 247-250(1993)
111. W. H. Lee, H. Kondo, H. Hosono and Y. Abe, Superconducting Bi₂Sr₂Ca₁Cu₂O_{8+y} Glass-Ceramics with Different Melting Histories, *Jpn. J. Appl. Phys.*, 32, 1082-1090(1993)

1994

112. H.Hosono, F.Tsuchitani, K.Imai, M.Maeda and Y.Abe, Porous Glass-Ceramics Cation exchangers: Cation exchange properties of porous glass-ceramics with skeleton of fast Li-ion conducting LiTi₂(PO₄)₃ crystal, *J.Mat.Res.*, 9, 755-761(1994).
113. K.Yanagawa, Y.Ohki, T.Omata, H.Hosono, N.Ueda and H.Kawazoe, New Oxide Phase Cd_{2(1-x)}Y_{2x}Sb₂O₇ Pyrochlore with a Wide Band gap and High Electrical Conductivity, *Jap.J.Appl.Phys.*, 33, L238-240(1994).
114. J.Nishii, H.Yamanaka, H.Hosono and H.Kawazoe, Characteristics of 5-eV Absorption Band in Sputter Deposited GeO₂-SiO₂ Thin Glass Films, *Appl.Phys.Lett.*, 64, 282-284 (1994).
115. H.Hosono, H.Kawazoe, K.Oyoshi and S.Tanaka, Paramagnetic Resonance of E'-type Centers in Si-implanted Amorphous SiO₂:Si²⁹ hyperfine structure and characteristics of Zeeman Resonances, *J.Non-Cryst.Sol.*, 179, 39-50 (1994).
116. H.Hosono and R.A.Zuhr, Structural Factor Controlling Nanosize Copper Colloid Formation in Doped Amorphous Silica by Ion Implantation, *J.Non-Cryst.Sol.*, 178, 160-165(1994).
117. T.Omata, K.Ueda, H.Hosono, M.Katada, N.Ueda, and H.Kawazoe, Electrical and Magnetic Properties of Hole-doped Sr_{1+x}La_{1-x}FeO₄, *Phys.Rev., B* 49, 10194-10199 (1994).
118. T.Omata, K.Ueda, H.Hosono, T.Miyazaki, S.Hasegawa, N.Ueda, and H.Kawazoe, Electronic Structure of Hole-doped Sr_{1+x}La_{1-x}FeO₄ Studied by UPS and XAS, *Phys.Rev., B* 49, 10200-10205(1994).
119. K.Yanagawa, Y.Ohki, T.Omata, H.Hosono, N.Ueda, and H.Kawazoe, Preparation of Cd_{1-x}Y_xSb₂O₆ Thin Film on Glass Substrates by Radio Frequency Sputtering, *Appl.Phys.Lett.*, 65, 406-408 (1994).
120. H.Hosono and H. Imagawa, Ion-Solid Chemistry in Implanted Amorphous SiO₂,

- Nucl.Instr.Meth.*, B 91, 510-514 (1994).
121. H.Hosono and H.Kawazoe, Radiation-induced Coloring and paramagnetic Centers in Synthetic SiO₂: Al glasses, *Nucl.Instr.Meth.*, B 91, 395-399 (1994).
 122. N.Matsunami and H.Hosono, Depth Profiles of Deuterium and Phosphorus Colloid Formation in BaO·P₂O₅ Glasses by D⁺ Ion Irradiation, *Nucl. Instr.Meth.*, B 91, 525-528 (1994)
 123. H.Hosono, N.Matsunami, A.Kudo, and T.Ohtsuka, Novel Approach for Synthesizing Ge Fine Particles Embedded in Glass by Ion Implantation: Formation of nanosize Ge particles in SiO₂-GeO₂ glasses by proton implantation, *Appl.Phys.Lett.*, 65, 1632-34(1994).
 124. Y.Abe, H.Hosono, O.Akita, and L.L.Hench, Protonic Conduction in Phosphate Glasses, *J.Electrochem.Soc.*, 141, L64-65(1994).
 125. H.Hosono and Y.Abe, Silver Ion Selective Porous Lithium Titanium Phosphate Glass-Ceramics Cation Exchanger and Its Application to Bacteriostatic Materials, *Mat.Res.Bull.*, 29, 1157-62(1994).
 126. H.Kawazoe, N.Ueda, H.Unno, T.Omata, H.Hosono and H.Tanoue, Generation of Electron Carriers in Insulating Thin Film of MgIn₂O₄ Spinel by Li⁺ implantation, *J.Appl.Phys.*, 76, 7935-7941 (1994).
 127. H.Imagawa, T.Arai, H.Hosono, H.Imai and K.Arai, Reaction Kinetics of Oxygen-deficient Centers with Diffusing Oxygen Molecules in Silica Glass, *J.Non-Cryst. Sol.*, 179, 70-74 (1994).

1995

128. H.Hosono, Chemical Interaction in Ion-implanted Amorphous SiO₂ and Application to Formation and Modification of Nanosize Colloid Particles, *J.Non-Cryst.Sol.*, 187, 457-472(1995).
129. H.Hosono, N.Ueda, H.Kawazoe and N.Matsunami, Optical and Electrical Properties of Proton-implanted Amorphous SiO₂, GeO₂-SiO₂, MgO-P₂O₅ and Nanocrystalline MgIn₂O₄: Novel Materials by Proton Implantation, *J.Non-Cryst.Sol.*, 182, 109-118 (1995).
130. H.Nasu, H.Okamoto, K.Kurachi, J.Matsuoka, K.Kamiya, A.Mito, and H.Hosono, Second-Harmonic Generation from electrically poled SiO₂ Glasses: Effect of OH concentration, Defects, and Poling conditions, *J.Opt.Soc.Am.*, B 12, 644-649(1995).
131. H.Hosono, Importance of Implantation Sequence in the Formation of Nanometer Size Colloid Particles in Amorphous SiO₂: Formation of Composite Colloids with Cu core and Cu₂O shell by coimplantation of Cu and F, *Phys.Rev.Lett.*, 74, 110-113 (1995).
132. M.Yasukawa, H.Hosono, N.Ueda and H.Kawazoe, Novel Transparent and Electroconductive Amorphous Semiconductor: Amorphous AgSbO₃ Film, *Jpn.J.Appl.Phys.*, 34, L281-284(1995).
133. M.Yasukawa, H.Hosono, N.Ueda and H.Kawazoe, Preparation of Electroconductive and Transparent Thin Films of AgSbO₃ (透明電子伝導性 AgSbO₃ 薄膜の作成), *J.Ceram.Soc.Jpn.*, 103, 455-459(1995).
134. M.Yasukawa, H.Hosono, N.Ueda and H.Kawazoe, Photoemission Studies on Valence band Structure of AgSbO₃, *Solid State Commun.*, 95, 399-403(1995).
135. J.Nishii, N.Kitamura, H.Yamanaka, H.Hosono and H.Kawazoe, Ultraviolet-radiation-Induced Chemical Reactions through One and Two-photon Absorption Processes in GeO₂-SiO₂ glasses, *Optics Letters*, 20, 1184-87(1995).
136. Photochemical Reactions in GeO₂-SiO₂ Glasses Induced by Ultraviolet Irradiation: Comparison between Hg lamp and Excimer laser, J.Nishii, K.Fukumi, H.Yamanaka, K.Kawamura, H.Hosono and H.Kawazoe, *Phys.Rev.*, B 52, 1661-1665(1995).

137. H.Hosono and Y.Abe, Porous Glass-ceramics composed of a titanium phosphate crystal skeleton: A Review: *A Review, J.Non-Cryst.Sol.*, 190, 185-197(1995).
138. J.Nishii, H.Yamanaka, H.Hosono and H.Kawazoe, Photon Induced Changes of 5eV band in GeO₂-SiO₂ Glasses Prepared by VAD and Sputtering Methods, *Glass Science and Technology*, 67C, 322-324(1995).
139. H.Hosono, K.Kawamura, N.Ueda, H.Kawazoe, S.Fujitsu and N.Matsunami, Formation and Photobleaching of 5eV bands in Ion Implanted SiO₂:GeO₂ and SiO₂ Glasses for Photosensitive Materials, *J.Phys.:Condensed Matter*, 7, L343-350(1995).
140. H.Hosono, H.Un'no, N.Ueda, H.Tanoue, N.Matsunami and H.Kawazoe, Conversion of Insulating Thin Films of MgIn₂O₄ into Transparent Conductors by Ion implantation, *Nucl.Instr. Meth., B* 106, 517-521(1995).
141. N.Matsunami, K.Kawamura and H.Hosono, Modification of Magnesium Phosphate Glass by H⁺ irradiation: Formation of OH-bands and Phosphorus-Colloid, *Rad.Eff.*, 136, 311-316(1995).
142. Preparation and Electrical Properties of Bi₂S₃ Whiskers, H.Mizoguchi, H.H.Hosono, N.Ueda, and H.Kawazoe, *J.Appl.Phys.*, 78, 1376-1378(1995).
143. H.Mizoguchi, T.Omata, H.Kawazoe, S.Fujitsu, H.Hosono, and N.Ueda, Features of valence Band Structure of TlAlF₄, *J.Phys.:Condensed Matter*, 8, 303-312(1995).
144. T.Omata, K.Kawano, H.Ikawa, T.Sasamoto, H.Hosono, H.Mizoguchi and H.Kawazoe, Electronic Transport Properties of Hole-doped Sr_{1+x}La_{1-x}CrO_{4+d}, (ホールドープした Sr_{1+x}La_{1-x}CrO_{4+d} の電子伝導性) *J.Ceram.Soc.Jpn.*, 103, 1112-1116(1995).
145. H.Hosono, N.Kikuchi, N.Ueda, H.Kawazoe and K.Shimidzu, Amorphous Transparent Electroconductor 2CdO-GeO₂: conversion of amorphous insulating cadmium germanate by ion implantation, *Appl.Phys.Lett.*, 67, 2663-2665(1995).

1996

146. H.Mizoguchi, H.Kawazoe, T.Ueda, S.Hayashi, H.Hosono, and N.Ueda, Formation and Optical Absorption Spectra of Mixed Valence State of Tl in Tl₂Nb₂O_{6+x} with Pyrochlore Structure, *Bull.Chem.Soc.Jpn.*, 69, 111-115(1996).
147. H.Hosono, Y.Yamashita, N.Ueda, H.Kawazoe and K.Shimidzu, New Amorphous Semiconductor: 2CdO-PbO_x, *Appl.Phys.Lett.*, 68, 661-663(1996).
148. H.Hosono, M.Mizuguchi, H.Kawazoe and J.Nishii, Correlation Between Ge E' centers and Optical Absorption Bands in SiO₂:GeO₂ Glasses, *Jap.J.Appl.Phys.*, 35, L234-236(1996).
149. T.Omata, H.Ikawa, S.Fujitsu, N. Ueda, H.Hosono and H.Kawazoe, Optical Absorption Spectra and the Nature of Conduction Carriers of Hole-doped Sr_{1+x}La_{1-x}FeO₄, *Solid State Commun.*, 97, 411-415(1996).
150. H.Hosono, H.Kawazoe and J.Nishii, Defect Formation in SiO₂: GeO₂ Glasses Studied by Irradiation with Excimer Laser Light, *Phys.Rev., B* 53, 11921-11923(1996).
151. H.Hosono, N.Kikuchi, N.Ueda and H.Kawazoe, Working Hypothesis to Explore Novel Wide Band Gap Electrically Conducting Amorphous Oxides and Examples, *J.Non-Cryst.Sol.*, 198-200, 165-169(1996).
152. ★H.Hosono, M.Yasukawa and H.Kawazoe, Novel Oxide Amorphous Semiconductors: transparent conducting amorphous oxides, *J.Non-Cryst.Sol.*, 203, 334-344(1996).
153. H.Hosono, H.Tanoue, S.Hishita, and A.Nakamura, Formation and Optical Properties of Nanometer-sized Amorphous Arsenic Clusters Embedded in Amorphous SiO₂ by Ion Implantation, *Nucl.Instr.Meth.B.*, 116, 178-182(1996).
154. K.Kawamura, H.Hosono and H.Kawazoe, Proton-implantation-induced Nanosized Ge

- Crystal Formation in SiO₂: GeO₂ Glasses, *J.Appl.Phys.*, 80, 1357-1362(1996).
155. K.Kawamura, H.Hosono, H.Kawazoe, N.Matsunami and Y.Abe, Large Enhancement of Electrical Conductivity in Magnesium Phosphate Glasses by Ion Implantation of Proton, *J.Ceram.Soc.Jpn.*, 104, 688-690(1996).
 156. H.Hosono, K.Kawamura, H.Kawazoe and J.Nishii, Nanometer-scale Heterogeneity in SiO₂-GeO₂ Glasses performs and fibers prepared by Vapor Phase Axial Deposition Method, *J.Appl.Phys.*, 80, 3115-17(1996).
 157. J.Nishii, H.Yamanaka, H.Hosono and H.Kawazoe, Preparation of Bragg Gratings in Sputter-deposited GeO₂-SiO₂ Glasses by Excimer-laser Irradiation, *Opt.Lett.*, 21, 1360-1362(1996).
 158. L.Yang, D.H.Osborne, R.F.Haglund, R.H.Magruder, C.W.White, R.A.Zuhr, and H.Hosono, Probing Interface Properties of Nanocomposites by Third-order Nonlinear Optics, *Applied Phys.*, A62, 403-415(1996).
 159. H.Mizoguchi, H.Kawazoe and H.Hosono, Enhancement of Electrical Conductivity of Polycrystalline □-PbO by Exposure to Ozone Gas at Room Temperature, *Chem.Mater.*, 8, 2769-2773(1996).
 160. H.Hosono and H.Kawazoe, Approach to Novel Crystalline and Amorphous Oxide Materials for Optoelectronics by Ion Implantation, *Mater.Sci. & Eng., B* 41, 39-45(1996).
 161. N. Ueda, H. Hosono and H. Kawazoe, Solid State Phenomena, Noble Transparent Semiconductor: MaIn₂O₄, 51-52, 317-322(1996)
 162. J. Nishii, A. Chayahara, K. Fukumi, K. Fujii, H. Yamanaka, H. Hosono and H. Kawazoe, Comparison of formation process of ultraviolet induced color centers in GeO₂-SiO₂ glass fiber perform and Ge-implanted SiO₂, *NIMB.*, 116, 150-153(1996)
- 1997
163. H.Hosono, K.Kawamura, H.Kawazoe, N.Matsunami and Y.Abe, Fast Proton Conducting Glasses: creation by proton implantation and a requirement for fast proton conduction, *J.Appl.Phys.*, 81, 1296-1301(1997).
 164. N.Kikuchi, N.Ueda, H.Hosono, H.Kawazoe and H.Tanoue, High Efficiency-carrier-generation in Li⁺-implanted MgIn₂O₄ thin films (リチウムイオンを注入した MgIn₂O₄ 薄膜の高いキャリア電子生成), *J.Ceram.Soc.Jpn.*, 105, 275-277(1997).
 165. N.Kikuchi, H.Hosono, H.Kawazoe, K.Oyoshi, and S.Hishita, Transparent, Conducting Amorphous Oxides: effect of chemical composition on electrical and optical properties of cadmium germanates, *J.Amer.Ceram. Soc.*, 80, 22-26(1997).
 166. N.Ueda, H.Hosono, R.Waseda and H.Kawazoe, Synthesis and Control of Conductivity of Ultraviolet Transmitting □-Ga₂O₃ Single Crystal, *Appl.Phys.Lett.*, 70, 3561-63(1997).
 167. H.Mizoguchi, K.Ueda, H.Kawazoe, H.Hosono, T.Omata and S.Fujitsu, New Mixed-valence Oxides of Bismuth: Bi_{1-x}Y_xO_{1.5+□} (x=0.4), *J.Mater.Chem.*, 7, 943-946(1997).
 168. N.Ueda, H.Hosono, R.Waseda and H.Kawazoe, Anisotropy of Electrical and Optical Properties in β-Ga₂O₃ Single Crystals, *Appl.Phys.Lett.*, 71, 933-935(1997).
 169. ★H.Kawazoe, M.Yasukawa, .Hyoudo, M.Kurita, H.Yanagi and H.Hosono, P-type Electrical Conduction in Transparent Thin Films of CuAlO₂, *Nature*, 389, 939-942(1997).
 170. Nanometer-sized Ge Particles in GeO₂-SiO₂ Glasses Produced by Proton Implantation: combined effects of electronic excitation and chemical reaction, H.Hosono, K.Kawamura, Y.Kameshima, H.Kawazoe, N.Matsunami, and K.Muta, *J.Appl.Phys.*, 82, 4232-35(1997).
 171. K.Ueda, H.Yanagi, H.Hosono and H.Kawazoe, Carrier Generation and Compensation

- in Y- and Nd-doped CaTiO_3 Single Crystals, *Phys.Rev., B* 56,12998-13005(1997).
172. H.Mizoguchi, H.Kawazoe, H.Hosono and S.Fujitsu, Charge Transfer Band Observed in Bismuth Mixed-valence Oxides, $\text{Bi}_{1-x}\text{Y}_x\text{O}_{1.5+\square}$ ($x=0.3$), *Solid State Commun.*, 104, 705-708(1997).
- 1998
173. K.Tanaka, N.Toyosawa and H.Hosono, Photoconduction in Multicomponent Oxide Glasses, *J.Non-Cryst.Sol.*, 224, 43-49(1998).
174. H.Hosono, H.Kawazoe and N.Matsunami, Experimental Evidence for Frenkel Defect Formation in Amorphous SiO_2 by Electronic Excitation, *Phys.Rev.Lett.*, 80, 317-320(1998)
175. K.Kawamura, Y.Kameshima, H. Hosono and H.Kawazoe, Proton-implantation-induced optical phenomena in SiO_2 : GeO_2 glasses: formation of photosensitive defects and nanometer sized Ge crystals, *Mater. Sci. Eng., B* 54, 18-23(1998).
176. Junji Nishii, Hiroshi Yamanaka, Hideo Hosono and Hiroshi Kawazoe, Origin of Enormous Photon-Induced Volume Expansion of GeO_2 - SiO_2 Thin Glass Films, *Nucl. Instr. Meth. Phys. Res., B* 141, 625-628(1998)
177. Masafumi Mizuguchi, Hideo Hosono and Hiroshi Kawazoe, Detection and analysis of ^{29}Si hyperfine structure in ESR spectra of E' and E'-type centers in SiO_2 glasses, *Mater. Sci. Eng., B* 54, 38-42(1998)
178. Hideo Hosono, Hiroo Maeda, Yoshikazu Kameshima and Hiroshi Kawazoe, Novel n-Type Conducting Amorphous Chalcogenide $\text{CdS} \cdot \text{In}_2\text{S}_x$: An extension of working hypothesis for conducting amorphous oxides, *J. Non-Cryst. Solids.*, 227-230, 804-809(1998)
179. Kazushige Ueda, Hiroshi Yanagi, Hideo Hosono and Hiroshi Kawazoe, Vacuum Ultraviolet Reflectance and Electron Energy Loss Spectra of CaTiO_3 , *J. Phys.: Condens. Matter*, 10, 3669-3677(1998)
180. Takuya Otabe, Kazushige Ueda, Atsushi Kudo, Hideo Hosono and Hiroshi Kawazoe, N-Type Electrical Conduction in Transparent Thin Films of Delafossite-Type AgInO_2 , *Appl. Phys. Lett.*, 72, 1036-1038(1998)
181. Atsushi Kudo, Hiroshi Yanagi, Hideo Hosono and Hiroshi Kawazoe, SrCuO_2 : A p-Type Conductive Oxide with Wide Band Gap, *Appl. Phys. Lett.*, 73, 220-222(1998)
182. Atsushi Kudo, Hiroshi Yanagi, Hideo Hosono and Hiroshi Kawazoe, Enhancement of carrier generation in MgIn_2O_4 thin film prepared by pulsed laser deposition technique, *Mater. Sci. Eng., B* 54, 51-54(1998)
183. Kazushige Ueda, Hiroshi Yanagi, Hideo Hosono and Hiroshi Kawazoe, Carrier compensation and generation in $\text{Ca}_{1-x}\text{Y}_x\text{TiO}_3$ and $\text{CaTi}_{1-x}\text{Nb}_x\text{O}_3$ single crystals, *Mater. Sci. Eng., B* 54, 60-63(1998)
184. Koichi Shimakawa, Hideo Hosono, Naoto Kikuchi and Hiroshi Kawazoe, Free Carrier Absorption in Highly Conducting Amorphous Oxides, *J. Non-Cryst. Solids.*, 227-230, 513-516(1998)
185. Kazushige Ueda, Hiroshi Yanagi, Ryuichi Noshiro, Hiroshi Mizoguchi, Takahisa Omata, Naoyuki Ueda, Hideo Hosono and Hiroshi Kawazoe, Observation of Electronic Structure in Conduction Band of CaTiO_3 , *J. Ceram Soc. Jpn.*, 106, 964-967(1998)
186. Naoyuki Ueda, Hiroo Maeda, Hideo Hosono and Hiroshi Kawazoe, Band Gap Widening of CdO Thin Films, *J. Appl. Phys.*, 84, 6174-6177(1998).
187. Hideo HOSONO, Masaaki KURITA, and Hiroshi KAWAZOE, Excimer Laser Crystallization of Amorphous Indium-Tin-Oxide and Its Application to Fine Patterning,

- Jpn. J. Appl. Phys.* 37, L1119-L1121(1998)
188. M.Mizuguchi, H.Hosono, H.Kawazoe and T.Ogawa, Generation of Optical Absorption Bands in CaF_2 Single Crystals by ArF Excimer Laser Irradiation: Effect of yttrium impurity, *J.Vac.Sci.Technol. A* 16, 3052-58(1998).
 189. K.Tanaka, N.Toyosawa and H.Hosono, Photoconduction in Multicomponent Oxide Glasses, *J.Non-Cryst.Sol.*, 224, 43-49(1998).
 190. H.Hosono, T.Kinoshita, H.Kawazoe, M.Yamazaki, Y.Yamamoto and N.Sawanobori, Long Lasting Phosphorescence Properties of Tb^{3+} -activated Reduced Calcium Aluminate Glasses, *Phys.: Condense Matter*, 10, 9541-47(1998).
 191. H.Hosono and N.Matsunami, Defect Formation in Amorphous SiO_2 by Ion Implantation: electronic excitation effects and chemical effects, *Nucl.Instr.Meth.Phys.Meth. B*, 141, 66-574(1998).
 192. Long luminescent Glasses: Tb^{3+} -activated $\text{ZnO-B}_2\text{O}_3\text{-SiO}_2$ Glass, M.Yamazaki, Y.Yamamoto, S.Nagahama, N.Sawanobori, M.Mizuguchi and H.Hosono, *J.Non-Cryst.Sol.* 241, 71-73(1998).
 193. Y.Watanabe, J.Nishii, H.Moriwaki, G.Furuhashi, H.Hosono and H.Kawazoe, Permanent Refractive-index Changes in GeO_2 Glass Slabs Induced by Irradiation with Sub Band Gap Light, *J.Non-Cryst.Sol.* 239, 104-107(1998).
 194. M.Miyakawa, K.Kawamura, H.Hosono and K.Kawamura, Large Electrical Conductivity Enhancement of WO_3 Thin Films produced by Ion Implantation, *J.Appl.Phys.* 84, 5610-13(1998).
 195. H.Hosono, M.Miyawaka, H.Kawazoe and K.Shimizu, Formation of Electronic Conducting Amorphous WO_3 Thin Films by Ion Implantation, *J.Non-Cryst.Sol.* 241, 190-194(1998).
 196. S.Ikeda, T.Takata, T.Kondo, G.Hitoki, M.Hara, J.Kondo, K.Domen, H.Hosono, H.Kawazoe and A.Tanaka, Mechano-catalytic Overall Water Splitting, *Chem.Commun.*, 2185(1998)
- 1999**
197. I.Nakai, C.Numako, H.Hosono and K.Yamazaki, Origin of the Red Color of Copper Ruby Glass as Determined by EXAFS and Optical Absorption Spectroscopy, *J.Amer.Ceram.Soc.*, 82, 689-95(1999)
 198. N.Ohashi, T.Nakata, T.Sekiguchi, H.Hosono, M.Mizuguchi, T.Tsurumi, J.Tanaka, and H.Haneda, Yellow Emission from Zinc Oxide Giving an Electron Spin Resonance Signal at $g=1.96$, *Jpn.J.Appl.Phys.* 38, L113-115(1999)
 199. Y.Morimoto, S.Nozaawa and H.Hosono, Effects of Xe_2^* Light (7.2eV) on the Infrared and Vacuum Ultraviolet Absorption Properties of Hydroxyl Groups in Silica Glasse, *Phys.Rev.,B*, 59, 4066-73(1999)
 200. K.Ueda, H.Yanagi, H.Hosono and H.Kawazoe, Study on Electronic Structure of CaTiO_3 by Spectroscopic Measurements and Energy Band Calculations, *J.Phys.:Condens.Matter*, 11, 3535-45(1999)
 201. H.Hosono, M.Mizuguchi, H.Kawazoe, T.Ichimura, Y.Watanabe, Y.Shinlkuma and T.Ogawa, ArF Excimer Laser Irradiation Effects in AlF_3 -based Fluoride Glasses for Vacuum ultraviolet Optics, *J.Appl.Phys.*, 85, 3038-3043(1999)
 202. H.Hosono, M.Mizuguchi, H.Kawazoe and T.Ogawa, Effects of fluorine dimer Excimer laser Irradiation on the Optical Transmission and Defect Formation of various Types of Synthetic SiO_2 Glasses, *Appl.Phys.Lett.*, 74, 2755(1999)
 203. N.Matsunami and H.Hosono, Bi-self-trapped-Exciton Model for Frenkel Defect Formation in Amorphous SiO_2 by Proton Irradiation, *Phys.Rev.B.*, 60, 10616(1999)
 204. M.Mizuguchi, H.Hosono, H.Kawazoe and T.Ogawa, Time-resolved

- Photoluminescence for Diagnosis of ArF Excimer Laser Damage Toughness in CaF_2 Single Crystals, *J.Opt.Soc.Am.B.*, 16, 1153-1159(1999).
205. M.Miyakawa, H.Hosono, and H.Kawazoe, Formation of Hydrogen Bronze of WO_3 by Ion Implantation, *Mater.Res.Bull.*, 34, 115-121(1999)
 206. H.Hosono, M.Kurita and H.Kawazoe, Excimer Laser Crystallization of Amorphous Indium-Tin-Oxide Thin Films and Application to Fabrication of Bragg Gratings, *Thin Solid Films*, 351,137-140(1999)
 207. M.Mizuguchi, L.Skuja, H.Hosono, and T.Ogawa, Photochemical processes induced by 157-nm light in H_2 -impregnated glassy $\text{SiO}_2\text{:OH}$, *Opt.Lett.*, 24,863-865(1999)
 208. K.Shimakawa, S.Narushima, H.Kawazoe and H.Hosono, Electronic Transport in Degenerate Amorphous Oxide Semiconductors, *Philo.Mag.Lett.*, 79, 755-761(1999)
 209. H.Hosono and J.Nishii, High Photosensitivity and Nanometer-scale Phase Separation in $\text{GeO}_2\text{-SiO}_2$ Glass Thin Films, *Opt.Lett.*,24, 1352-54(1999)
 210. M.Mizuguchi, L.Skuja, H.Hosono and T.Ogawa, F-doped and H_2 -impregnated Synthetic SiO_2 Glasses for 157 nm Optics, *J.Vac.Sci.Technol.,B*, 17, 3280-3284(1999).
 211. H.Mizoguchi, K.Fukumi, N.Kitamura, T.Takeuchi, J.Hayakawa, H.Yanagi, H.Hosono and H.Kawazoe, Electronic Structure of Polycrystalline AMoO_3 (A= Sr or Ba), *J.Appl.Phys.*, 85, 6502(1999)
 212. J.Nishii, K.Kintaka, H.Hosono, H.Kawazoe, M. Kato and K.Muta, Pair Generation of Ge electron center and self-trapped hole center in $\text{GeO}_2\text{-SiO}_2$ glasses by KrF excimer-laser irradiation, *Phys.Rev.,B*, 60, 7166-69(1999)
 213. T.Kinoshita, M.Yamazaki, H.Kawazoe and H.Hosono, Long Lasting Phosphorescence and Photostimulative Luminescence in Tb-ion-activated Reduced Calcium Aluminate Glasses, *J.Appl.Phys.*,86, 3729(1999)
 214. A.Kudo, H.Yanagi, K.Ueda, H.Hosono, H.Kawazoe and Y.Yano, Fabrication of transparent p-n heterojunction thin film diode based entirely on oxide semiconductors, *Appl.Phys.Lett.*, 75, 2851-53(1999)
 215. H.Mizoguchi, H.Hosono, H.Kawazoe, M.Yasukawa, S.Fujitsu and K.Fukumi: Valence States of Bismuth in New Mixed-valence Oxides: $\text{Bi}_{1-x}\text{Y}_x\text{O}_{1.5+\square\square}$ ($x=0.4$) by XANES, *Mater.Res.Bull.*,34, 373-379 (1999).
 216. H.Hosono, M.Mizuguchi, L.Skuja and T.Ogawa, Fluorine-doped SiO_2 Glasses for F_2 Excimer Laser Optics: fluorine content and defect formation, *Opt.Lett.* 24, 1549-51(1999).
 217. J.Nishii, K.Kintaka, H.Hosono and H.Kawazoe, Formation and relaxation of paramagnetic centers in $\text{GeO}_2\text{-SiO}_2$ glasses by KrF excimer laser irradiation, *Rad.Effects & Defects*, 150,379-383(1999).
 218. S.Ikeda, T.Takata, M.Komada, M.Hara, J.N.Kondo, K.Domen, A.Tanaka, H.Hosono and H.Kawazoe, Mechano-catalysis- a novel method for overall water splitting, *Phys.Chem.Chem.Phys.*1, 4485-4491(1999).

2000

219. H.Yanagi, H.Kawazoe, A.Kudo, M.Yasukawa and H.Hosono, Chemical Design and Thin Film Preparation of P-type Conducting Transparent Oxides, *J.Electroceram.*, 4, 407-414(2000).
220. L.Skuja, M.Hirano and H.Hosono, Oxygen-related Intrinsic Defects in Glassy SiO_2 : interstitial ozone molecules, *Phys.Rev.Lett.*,84, 302-304(2000).
221. H.Hosono and Y.Ikuta, Interaction of F_2 excimer laser light pulses with SiO_2 glasses: towards the 3rd generation of glassy SiO_2 , *Nucl.Instr.Meth.,B* 166-167, 691-697(2000).
222. L.Skuja, M.Mizuguchi, H.Hosono and H.Kawazoe, The Nature of the 4.8eV optical absorption band induced by vacuum-ultraviolet irradiation of glassy SiO_2 , *Nucl.Instr.*

- Meth.*, B 166-167, 711-715(2000).
223. K.Ueda, H.Kawazoe, and H.Hosono, Electron paramagnetic Centers in Donor-doped CaTiO_3 Single Crystals, *Phys.Rev.*, B 61, 7440-47(2000).
 224. H.Ohta, M.Orita, M.Hirano, H.Tanji, H.Kawazoe and H.Hosono, Highly Electrically Conductive Indium-Tin-Oxide Thin Films Epitaxially Grown on YSZ (100) by Pulsed Laser Deposition, *Appl.Phys.Lett.*, 76, 2740-2742(2000).
 225. H.Mizoguchi, N.Kitamura, K.Fukumi, T.Mihara, J.Nishii, M.Nakamura, N.Kikuchi, H.Hosono and H.Kawazoe, Optical Properties of SrMoO_3 Thin Films, *J.Appl.Phys.*, 87, 4617 (2000).
 226. H.Ohta, K.Kawamura, N.Sarukura, M.Orita, M.Hirano and H.Hosono, UV Emitting Diode Composed of Transparent Oxide Semiconductors: p- SrCu_2O_2 /n- ZnO , *Electronics Letters*, 36, 984(2000).
 227. K.Kawamura, T.Ogawa, N.Sarukura, M.Hirano and H.Hosono, Fabrication of Surface Relief Gratings on Transparent Dielectric Materials by Two-beam Holographic method using infrared femtosecond laser pulses, *Appl.Phys.*, B71, 119(2000).
 228. T.Kinoshita and H.Hosono, Materials Design and Example of Long Lasting Phosphorescent Glasses Utilizing Electron Trapped Centers, *J.Non-Cryst.Sol.* 247, 257(2000).
 229. S.Narushima, H.Hosono, J.Jisun, T.Yoko, and K.Shimakawa, Electronic Transport and Optical Properties of Proton-implanted Amorphous $2\text{CdO}.\text{GeO}_2$ Films, *J.Non-Cryst.Sol.*, 274, 313-318(2000)
 230. H.Ohta, K.Kawamura, N.Sarukura, M.Orita, M.Hirano and H.Hosono, Current injection emission from a transparent p-n junction composed of p- SrCu_2O_2 /n- ZnO , *Appl.Phys.Lett.*, 77, 475-77(2000)
 231. S. Ibuki, Hiroshi Yanagi, Kazushige Ueda, Hiroshi Kawazoe and Hideo Hosono, Preparation of n-type Conducting Transparent Thin films of $\text{AgInO}_2:\text{Sn}$ with Delafossite-type Structure by Pulsed Laser Deposition, *J. Appl. Phys.*, 88, 3067(2000)
 232. H.Yanagi, S.Inoue, K.Ueda, H.Kawazoe, H.Hosono and N.Hamada, Electronic Structure and Optoelectronic Properties of Transparent P-Type Conducting CuAlO_2 , *J.Appl.Phys.*, 88, 4159(2000)
 233. L.Skuja, H.Hosono, M.Mizuguchi, B.Guttler, and A.Silin, Site-selective Study of the 1.8eV Luminescence Band in Glassy GeO_2 , *J.Luminescence*, 87-89, 699(2000)
 234. K.Kawamura, N.Sarukura, M.Hirano and H.Hosono, Holographic Encoding of Permanent Gratings Embedded in Diamond by Two Beam Interference of a Single Femtosecond Near-infrared Laser Pulse, *Jpn.J.Appl.Phys.(express letter)* 39, L767-69(2000)
 235. H.Nagata, K.Kawamura, K.Higuma, J.Ichikawa, L.D.Pokrovsky, H.Takai and H.Hosono, Structure and Refractive Index of Proton-Implanted LiNbO_3 , V.V.Atuchin, *Jpn.J.Appl.Phys.* 39, 2653-56(2000)
 236. K. Ueda, S. Inoue, S. Hirose, H. Kawazoe and H. Hosono, Transparent p-type semiconductor: LaCuOS layered oxysulfide, *Appl. Phys. Lett.*, 77, 2701 (2000)
 237. N.Kikuchi, E.Kusano, H.Nanto, A.Kinbara and H.Hosono, Phonon Scattering in Electron Transport Phenomena of ITO Thin Films, *Vacuum*, 59, 492-99(2000)
 238. M.Orita, H.Ohta, M.Hirano and H.Hosono, Deep ultraviolet transparent electroconductive $\beta\text{-Ga}_2\text{O}_3$ thin films", *Appl.Phys.Lett.*, 77, 4166-68(2000)
 239. Y.Ikuta, S.Kikugawa, M.Hirano, and H.Hosono, Defect formation and structural alternation in modified SiO_2 glasses by irradiation with F_2 laser or ArF excimer laser, *J.Vac.Sci.Technol.B* 18, 2891(2000)
 240. H. Kishimoto, T. Omata, S. Otuka-Yao-Matsuo, K. Ueda, H. Hosono and H. Kawazoe, Crystal structure of metastable k- CeZrO_4 phase possessing an ordered arrangement of Ce and Zr ions, *J. Alloys and Compounds* 312, 94-103(2000)

241. H. Mizoguchi, K. Ueda, K. Fukumi, N. Kitamura, Z. Siroma, T. Takeuchi, K. Kadomo, H. Yanagi, H. Hosono and H. Kawazoe, Electronic Structure of $\text{SrNb}_8\text{O}_{14}$ and $\text{Mg}_3\text{Nb}_6\text{O}_{11}$ Studied by Spectroscopic Methods, *Chem. Mater.*, 12, 2659-2663(2000)
- 2001
242. H. Yanagi, T. Hase, S. Ibuki, K. Ueda, and H. Hosono, Bipolarity in electrical conduction of transparent oxide semiconductor CuInO_2 with elafossite structure, *Appl. Phys. Lett.*, 78, 1583(2001)
243. K. Ueda, T. Hase, H. Yanagi, H. Kawazoe, H. Hosono, H. Ohta, M. Orita and M. Hirano, Epitaxial growth of transparent p-type conducting CuGaO_2 thin films on sapphire (001) substrates by pulsed laser deposition, *J. Appl. Phys.*, 89, 1790 (2001)
244. K. Kawamura, N. Sarukura, M. Hirano and H. Hosono, Holographic encoding of fine-pitched micrograting structures in amorphous SiO_2 thin films on silicon by a single femtosecond laser pulse, *Appl. Phys. Lett.*, 78, 1038-40(2001)
245. M. Orita, H. Ohta, M. Hirano, S. Narushima and H. Hosono, Amorphous transparent conductive oxide, $\text{InGaO}_3(\text{ZnO})_m$ ($m=4$): Zn4s conductor, *Philos. Mag. B*, 81, 501-15(2001)
246. H. Ohta, M. Orita, M. Hirano and H. Hosono, Fabrication and characterization of ultraviolet-emitting diodes composed of transparent p-n heterojunction, p- SrCu_2O_2 and n- ZnO , *J. Appl. Phys.*, 89, 5720(2001)
247. Z. Liu, T. Kozeki, Y. Suzuki, N. Sarukura, K. Shimamura, T. Fukuda, M. Hirano and H. Hosono, Chirped pulse amplification for ultraviolet femtosecond pulses using $\text{Ce}^{3+}:\text{LiCaAlF}_6$ as a broad band, solid state gain medium, *Opt. Lett.*, 26, 301(2001)
248. S. Takeda, R. Akiyama and H. Hosono, Formation of nanometer-sized SnO_2 colloids and change in Sn-depth concentration profile in float glass induced by oxygen diffusion from atmosphere at a temperature above T_g , *J. Non-Cryst. Sol., (rapid commun.)* 281, 1-5(2001)
249. S. Takeda, Y. Ikuta, M. Hirano and H. Hosono, Modification of sol-gel-derived amorphous Al_2O_3 thin films by F_2 excimer laser irradiation at ambient temperature, *J. Mater. Res.* 16, 1003-09(2001)
250. S. Takeda, S. Suzuki, H. Odaka and H. Hosono, Photocatalytic TiO_2 thin film deposited onto glass by DC magnetron sputtering, *Solid Thin Films*, 392, 338-44(2001)
251. 太田裕道・折田政寛・平野正浩・細野秀雄, p- SrCu_2O_2 / n- ZnO ヘテロ接合 LED の作製と近紫外発光, *表面科学*, 22, 419-24(2001)
252. K. Ueda, S. Inoue, N. Sarukura, M. Hirano and H. Hosono, Room-temperature excitons in wide-gap layered-oxysulfide semiconductor: LaCuOS , *Appl. Phys. Lett.*, 78, 2333 (2001)
253. K. Ueda, S. Hirose, H. Kawazoe and H. Hosono, Electrical and optical properties of layered oxysulfides with CuS layers: Sr-Cu-M-O-S system ($M=\text{Zn, Ga, In}$), *Chem. Mater.*, 13, 1880-83(2001)
254. K. Kawamura, N. Sarukura, M. Hirano, and H. Hosono, Periodic nano-structure array in crossed holographic gratings on silica glass by interfered two infrared femtosecond laser pulses, *Appl. Phys. Lett.*, 79, 1228(2001)
255. M. Oto, S. Kikugawa, N. Sarukura and H. Hosono, Optical fiber for deep ultraviolet light, *IEEE Photon. Technol. Letter.*, 13, 978(2001).
256. K. Kajihara, L. Skuja, M. Hirano, and H. Hosono, Formation and decay of nonbridging oxygen hole centers in SiO_2 glasses induced by F_2 laser irradiation: In situ observation using a pump and probe technique, *Appl. Phys. Lett.*, 79, 1757(2001)
257. S. Inoue, K. Ueda, H. Hosono, and N. Hamada, Electronic structure of the transparent p-type semiconductor $(\text{LaO})\text{CuS}$, *Phys. Rev. B*, 64, 245211(2001)

258. K.Kajihara, Y.Ikuta, M.Hirano, T.Ichimura, H.Hosono, Interaction of F_2 excimer laser pulses with hydroxyl groups in SiO_2 glass: Hydrogen bond formation and bleaching of vacuum ultraviolet absorption edge, *J.Chem.Phys.* 115, 9473(2001)
259. K.Hayashi, M.Hirano, S.Matsuishi and H.Hosono, Microporous crystal $12CaO \cdot 7Al_2O_3$ encaging abundant O^- radicals, *J.Amer.Chem.Soc.* 124, 738-39(2002)
260. H.Mizoguchi, M.Hirano, S.Fujitsu, T.Kakeuchi, K.Ueda, and H.Hosono, $ZnRh_2O_4$: A p-type semiconducting oxide with a valence band composed of a low spin state of Rh^{3+} in a $4d^6$ configuration, *Appl.Phys.Lett.* 80, 1207(2002)
261. M.Miyakawa, R.Noshiro, T.Ogawa, K.Ueda, H.Kawazoe, H.Ohta, M.Orita, M.Hirano, and H.Hosono, Carrier doping into $MgIn_2O_4$ epitaxial thin films by proton implantation, *J.Appl.Phys.* 91, 2112(2002)
262. H.Hosono, Y.Ikuta, T.Kinoshita, K.Kajihara, and M.Hirano, Physical disorder and optical properties in the vacuum ultraviolet region of amorphous SiO_2 , *Phys.Rev.Lett.*, 87, 175501(2001).
263. Z.Liu, T.Kozeki, Y.Suzuki, N.Sarukura, K.Shimamura, T.Fukuda, M.Hirano, and H.Hosono, Ce^{3+} : $LiCaAlF_6$ crystal for high-peak-power amplification of ultraviolet femtosecond pulses and new potential ultraviolet gain medium: Ce^{3+} : $LiSr_{0.8}Ca_{0.2}AlF_6$., *IEEE J.Selected Topics in Quantum Electronics*, 7, 542(2001)

2002

264. H.Yanagi, K.Ueda, H.Ohta, M.Orita, M.Hirano, and H.Hosono, Fabrication of all oxide transparent p-n homojunction using bipolar $CuInO_2$ semiconducting oxide with delafossite structure, *Solid State Commun*, 121, 15-17(2002)
265. H.Ohta, M.Orita, M.Hirano, I.Yagi, K.Ueda and H.Hosono, Electronic structure and optical properties of $SrCu_2O_2$, *J.Appl.Phys.* 91, 3074(2002)
266. Hiromichi Ohta, Masahiro Orita, Masahiro Hirano, and Hideo Hosono, Surface morphology and crystal quality of low resistive indium tin oxide grown on yttria-stabilized zirconia, *Journal of Applied Physics*, 91, 3547(2002)
267. M.Miyakawa, H.Un'no, K.Ueda, H.Kawazoe, H.Hosono and N.Matsunami, Carrier generation in polycrystalline $MgIn_2O_4$ thin films by proton implantation, *Philo.Mag.B*, 82, 1152-62(2002).
268. H.Hosono, K.Kajihara, M.Hirano, and M.Oto, Photochemistry in phosphorus-doped silica glass by ArF excimer laser irradiation: crucial role of H_2 -loading, *J.Appl.Phys.* 91, 4121(2002)
269. H.Hosono, K.Kawamura, S.Matsuishi, and M.Hirano, Holographic writing of micro-gratings and nanostructures on amorphous SiO_2 by near infrared femtosecond pulses, *Nucl.Instr.Meth.B* 191, 87-97(2002)
270. K.Kawamura, N.Ito, N.Sarukura, M.Hirano and H.Hosono, New adjustment technique for time coincidence of femtosecond laser pulses using third harmonic generation in air and its application to holograph encoding system, *Rev.Sci.Instr.* 73, 1711-4(2002)
271. T.Suzuki, M.Hirano, and H.Hosono, Optical gaps in alkali borate and alkali fluoroborate glasses, *J.Appl.Phys.*, 91, 4149(2002).
272. H.Hosono, H.Ohta, M.Orita, K.Ueda, and M.Hirano, Frontier of transparent conductive oxide thin films, *Vacuum*, 66, 419-425(2002)
273. S.Watauchi, I.Tanaka, K.Hayashi, M.Hirano, and H.Hosono, Crystal growth of $Ca_{12}Al_{14}O_{33}$ by the floating zone method, *J.Cryst.Growth*, 237, 801-805(2002).
274. H.Hosono, H.Ohta, K.Hayashi, M.Orita, and M.Hirano, Near UV-emitting diodes based on transparent p-n junctions composed of heteroepitaxially grown p- $SrCu_2O_2$ and

- n-ZnO, *J.Cryst.Growth*, 237-239, 496(2002)
275. L.Skuja, K.Kajihara, T.Kinoshita, M.Hirano and H.Hosono, The behavior of interstitial oxygen atoms induced by F₂ laser irradiation of oxygen-rich glassy SiO₂, *Nucl.INstr.Meth.B*. B191, 127-30(2002).
 276. L. Skuja, M. Hirano, K. Kajihara, H. Hosono: Point defect creation by photochemical processes in glassy silica; *Phys. Chem. Glasses*, 43, 145-148, (2002)..
 277. M.Miyakawa, K.Ueda, and H.Hosono, Carrier control in transparent semiconducting oxide thin films by ion implantation: MgIn₂O₄ and ZnO; *Nucl.Instr.Meth.* B191,173-77(2002)
 278. S.Takeda, R.Akiyama, and H.Hosono, Precipitation of nanometer-sized SnO₂ crystals and Sn depth profile in heat-treated float glass, *J.Non-Cryst.Sol.*, 311[3], 273-280(2002)
 279. S. HIROSE, K. UEDA, H. KAWAZOE, and H. HOSONO: Electronic Structure of Sr₂Cu₂ZnO₂S₂ Layered Oxysulfide with CuS Layers; *Chem. Mater.*, 14, 1037-41(2002)
 280. K. UEDA and H. HOSONO: Band gap engineering, band edge emission, and p-type conductivity in wide-gap LaCuOS_{1-x}Sex oxychalcogenides; *J. Appl. Phys.*, 91, 4768(2002)
 281. K. UEDA and H. HOSONO: Crystal structure of LaCuOS_{1-x}Sex oxychalcogenides; *Thin Solid Films*, 411, 115(2002)
 282. N. Kikuchi, H.Hosono, H.Kawazoe, O.Tanegashima, I.Ohta, and Y.Kimura, Transparent Conducting Oxide, InSbO₄ with random rutile structure, *Vacuum* 65, 81-84(2002).
 283. H.Hosono, K.Kajihara, T.Suzuki, Y.Ikuta, L.Skuja, and M.Hirano, Vacuum ultraviolet absorption band of non-bdiding oxygen hole centers in SiO₂ glass, *Solid State Commun.*, 122, 117-20(2002).
 284. K.Hayashi, M.Hirano and H.Hosono, Translucent ceramics of 12CaO•7Al₂O₃ with microporous structure, *J.Mater.Res.*, 17,1244(2002)
 285. Q.Li, K.Hayashi, M.Nishioka, H.Kashiwagi, M.Hirano, Y.Torimoto, H.Hosono and M.Sadakata, Reproducibility of O⁻ negative ion emission from C₁₂A₇ crystal surface, *Jpn.J.Appl.Phys.*, 41, L530-32(2002).
 286. Y.Ikuta, K.Kajihara, M.Hirano, S.Kikugawa, and H.Hosono, Effects of H₂ impregnation on excimer-laser-induced oxygen-deficient center formation in synthetis SiO₂ glass, *Appl.Phys.Lett.*, 80, 3916(2002).
 287. K. Hayashi, M. Hirano, Q.-X. Li, M. Nishioka, M. Sadakata, Y. Torimoto, S. Matsuishi, and H. Hosono, Electric Field Emission of High Density O⁻ Ions from 12CaO•7Al₂O₃ Engineered to Incorporate Oxygen Radicals, *Electrochemical and Solid State Lett.*, 5,J13-16(2002).
 288. H.Hiramatsu, M.Orita, M.Hirano, K.Ueda, and H.Hosono, Electrical conductivity control in transparent p-type (LaO)CuS thin films prepared by rf sputtering, *J.Appl.Phys.*, 91,9177(2002).
 289. T.Suzuki and H.Hosono, Ion-beam-doping of silver into amorphous As₂S₃ thin films, *J.Appl.Phys.*, 92,1821(2002)
 290. M.Miyakawa, K.Ueda, and H.Hosono,"Enhacement of electrical conductivity in highly oriented WO₃ thin films by ion implantation, *J.Appl.Phys.*, 92, 2017~2022(2002)
 291. ★S.Narushima, M.Orita, M.Hirano, and H.Hosono "Electronic Structure and transport properties in transparent amorphous oxide semiconductors 2CdO-GeO₂, *Phys.Rev.B*, 66, 035203-1-8(2002).
 292. H.Hiramatsu, H.Ohta, M.Hirano, K.Ueda, and H.Hosono," Heteroepitaxial Growth of a wide-Gap p-type Semiconductor, LaCuOS" ; *Appl.Phys.Lett.*, 81, 598-600(2002).
 293. K.Kawamura, T.Kamiya, M.Hirano and H.Hosono, writng of volume-type microgratings in silica glass by a single chirped laser pulse; *Appl.Phys.Lett.*, 81, 1137-1139(2002)

294. M.Hirano, K.Kawamura, and H.Hosono, Encoding of holographic grating and periodic nano-structure by femtosecond laser pulse; *Applied Surface Science*, 197-198, 688-698(2002)
295. H.Mizoguchi, M.Orita, M.Hirano, S.Fujitsu, T.Taakeuchi, and H.Hosono, NbO₂F: an oxyfluoride phase with wide band gap and electrochromic properties; *Appl.Phys.Lett.*, 80, 4732(2002).
296. Q.X.Li, K.Hayashi, M.Nishioka, H.Kashiwagi, M.Hirano, Y.Torimoto, H.Hosono, and M.Sadakata, Absolute emission current density of O⁻ from 12CaO-7Al₂O₃ crystal, *Appl.Phys.Lett.*, 80, 4259(2002).
297. Quanxin Li, Hideo Hosono, Masahiro Hirano, Katsuro Hayashi, Masateru Nishioka, Hideo Kashiwagi Yoshifumi Torimoto, Masayoshi Sadakata: High-intensity atomic oxygen radical anion emission mechanism from 2CaO·7Al₂O₃ crystal surface; *Surf. Sci.* 527,100-112 (2002)
298. H.Ohta, M.Orita, M.Hirano, K.Ueda, and H.Hosono: Epitaxial Growth of Transparent Conductive Oxides ; *Int.J.Mod.Phys.B*, 16, 173-180(2002).
299. K.Kawamura, A Motomitsu, M. Hirano and H. Hosono, Formation of Microstructure in SiO₂ Thin film by a Femtosecond Laser Pulse, *Jpn.J.Appl.Phys.*, 41, 4400-4403(2002)
300. M. Miyakawa, K. Ueda and H. Hosono, Carrier Generation in Highly Oriented WO₃ films by Proton or Helium Implantation, *J. Appl. Phys.*, 92, 2017(2002)
301. K.Kawamura, E.Motomitsu, M.Hirano, and H.Hosono : Formation of Microstructure in SiO₂ Thin Film by a Femtosecond Laser Pulse ; *Jpn.J.Appl.Phys.* 41, 4400-4403(2002).
302. H.Hiramatsu, K.Ueda, H.Ohta, M.Orita, M.Hirano, and H.Hosono, Preparation of Transparent P-type (La_{1-x}Sr_x)CuOS Thin Films by rf Sputtering; *Thin Solid Films*, 411,125~128(2002).
303. K.Nomura, H.Ohta, K.Ueda, M.Orita, M.Hirano, and H.Hosono: Novel Film Growth Technique for Single Crystalline InGaO₂(ZnO)_m (m=integer) Homologous Compound; *Thin Solid Films*,411,147~151(2002).
304. M.Orita, H.Hiramatsu, H.Ohta, M.Hirano, and H.Hosono: Preparation of highly conductive, deep-uv transparent β-Ga₂O₃ thin films at low temperature; *Thin Solid Films*, 411, 134~139(2002).
305. ★K.Hayashi, S.Matsuishi, T.Kamiya, M.Hirano, and H.Hosono: Light-induced conversion of refractory oxide into persistent electronic conductor; *Nature*, 419, 462-465(2002)
306. K.Kajihara, L.Skuja, M.Hirano and H.Hosono, Diffusion and Reaction of Hydrogen in F₂-laser-irradiated SiO₂ Glass; *Phys.Rev.Lett.* 89, 135507-1~4(2002).
307. K.Kajihara, Y.Ikuta, M.Hirano, and H.Hosono: Power Dependence of Defect Formation in SiO₂ Glass by F₂-laser-irradiation; *Applied Physics Letters*, 81, 3164~66(2002).
308. H.Mizoguchi, K.Ueda, M.Orita, M.Hirano, and H.Hosono: Complete water splitting by light irradiation of CaTiO₃; *Materials Research Bulletin*, 37, 2401~06(2002).
309. Hidenori Hiramatsu, Hiromichi Ohta, Masahiro Hirano, and HideoHosono, Heteroepitaxial growth of single-phase zinc blende ZnS films on transparent substrates by pulsed laser deposition under H₂S atmosphere, *Solid State Commun.* 124, 411-415(2002).
310. H.Kamioka, T. Miura, K. Kawamura, M. Hirano, and H. Hosono, Fine-pitched microgratings encoded by interference of UV femtosecond laser pulses, *J.Nanoscience & Nanotech.* 2, 321-322(2002).
311. H.Hiramatsu, K.Ueda, H.Ohta, M.Orita, M.Hirano, and H.Hosono, Heteroepitaxial growth of a wide-gap p-type semiconductor, LaCuOS, *Appl.Phys.Lett.* 81, 598-600(2002).
312. K. Kajihara, Y. Ikuta, M. Hirano and H. Hosono; Structural alternation and defect

formation in SiO₂ glasses by F₂ excimer laser irradiation: *Phys. Chem. Glasses*, 43 [3], 137-40(2002)

2003

313. Hiromichi Ohta, Kenji Nomura, Masahiro Orita, Masahiro Hirano, Kazushige Ueda, Toshiyuki Suzuki, Yuichi Ikuhara, Hideo Hosono: Single-crystalline films of the homologous series InGaO₃(ZnO)_m grown by reactive solid-phase epitaxy; *Adv. Funct. Mater.*, 13, 139-144, (2003).
314. Hiromichi Ohta, Hiroshi Mizoguchi, and Masahiro Hirano, Satoru Narushima, Toshio Kamiya and Hideo Hosono, Fabrication and characterization of heteroepitaxial p-n junction diode composed of wide-gap oxide semiconductors p-ZnRh₂O₄ / n-ZnO; *Appl. Phys. Lett.*, 82[5], 823-25(2003)
315. Hidenori Hiramatsu, Kazushige Ueda, Hiromichi Ohta, Masahiro Hirano, Toshio Kamiy and Hideo Hosono; Degenerate p-type conductivity in wide-gap LaCuOS_{1-x}Se_x (x=0-1) epitaxial films; *Appl. Phys. Lett.*, 82[7], 1048-50 (2003)
316. H.Ohta, K.Nomura, M.Orita, M.Hirano, K.Ueda, T.Suzuki, Y.Ikuhara and H.Hosono; Single-Crystalline Films of the Homologous Series InGaO₃(ZnO)_m Grown by Reactive Solid-Phase Epitaxy; *Adv. Funct. Mater.*, 13[2], 139-44(2003)
317. Preparation and crystal structure analysis of CeCuOS: Kazushige Ueda, Kouhei Takafuji, and Hideo Hosono; *J. Sol. Stat. Chem.*, 170, 182-87(2003)
318. Quanxin Li, Hideo Hosono, Masahiro Hirano, Katsuro Hayashi, Masateru Nishioka, Hideo Kashiwagi, Yoshifumi Torimoto, Masayoshi Sadakata; High-intensity atomic oxygen radical anion emission mechanism from 12CaO·7Al₂O₃ crystal surface; *Surface Science*, 527, 100-12 (2003)
319. T.Suzuki, L.Skuja, K.Kajihara, M.Hirano, T.Kamiya, and H.Hosono; Electronic structure of oxygen dangling bond in glassy SiO₂: the role of hyperconjugation, *Physical Review Letters*, 90, 186404-1~4(2003)
320. K. Hayashi, S. Matsuishi, N. Ueda, M. Hirano, and H. Hosono: Maximum Incorporation of Oxygen Radicals O⁻ and O₂⁻, into 12CaO·7Al₂O₃ with a Nanoporous Structure; *Chem. Mater.*, 15[9], 1851-54(2003)
321. ★K. Nomura, H. Ohta, K. Ueda, T. Kamiya, M. Hirano, and H. Hosono: Thin-Film Transistor Fabricated in Single-Crystalline, Transparent Oxide Semiconductor; *Science*, 300, 1269-1272(2003).
322. ★S. Matsuishi, Y. Toda, M. Miyakawa, K. Hayashi, K. Kamiya, M. Hirano, I. Tanaka, and H. Hosono: High-Density Electron Anions in a Nanoporous Single Crystal: [Ca₂₄Al₂₈O₆₄]^{4+(4e⁻)}, *Science*, 301[5633], 626-629(2003)
323. Toshio Kurobori1, Ken-ichi Kawamura, Masahiro Hirano, and Hideo Hosono: Simultaneous fabrication of laser-active colour centers and permanent microgratings in lithium fluoride by a single femtosecond pulse; *J. Phys.: Condens. Matter* 15, L399-L405(2003)
324. Masashi Miyakawa, Katsuro Hayashi, Masahiro Hirano, Yoshitake Toda, Toshio Kamiya, and Hideo Hosono: Fabrication of Highly Conductive 12CaO·7Al₂O₃ Thin Films Encaging Hydride ions by Proton Implantation; *Adv. Mater.*, 15[13]1100-1102(2003)
325. 佐々木健夫、松永克志、太田裕道、細野秀雄、山本剛久、幾原雄一：HRTEMによる Cu/α-Al₂O₃ (0001) 界面の原子構造解析 (HRTEM Characterization of Atomic Structures in Cu/α-Al₂O₃ (0001) Interface) ; *材料 (The Society of Materials Science Japan)*、52[6]、555-559 (2003)

326. Koichi Kajihara, Yoshiaki Ikuta, Masahiro Hirano, Hideo Hosono: Effect of F₂ laser power on defect formation in high-purity SiO₂ glass; *Journal of Non-Crystalline Solids*, 322, 73–77(2003)
327. Hiromichi Ohta, Takuya Kambayashi, Masahiro Hirano, Hajime Hoshi, Ken Ishikawa, Hideo Takezoe, and Hideo Hosono: Application of a Transparent Conductive Substrate with an Atomically Flat and Stepped Surface to Lateral Growth of an Organic Molecule: Vanadyl Phthalocyanine; *Advanced Materials*, 15[15], 1258-1262(2003)
328. Satoru Narushima, Hiroshi Mizoguchi, Ken-ichi Simizu, Kazushige Ueda, Hiromichi Ohta, Masahiro Hirano, Toshio Kamiya, and Hideo Hosono: A p-Type Amorphous Oxide Semiconductor and Room Temperature Fabrication of Amorphous Oxide p-n Heterojunction Diodes; *Adv. Mater.*, 15[17], 1409-1413(2003)
329. K. Ueda, K. Takafuji, H. Hiramatsu, H. Ohta, T. Kamiya, M. Hirano, and H. Hosono: Electrical and Optical Properties and Electronic Structures of LnCuOS (Ln = La ~Nd); *Chem. Mater.*, 15, 3692-3695(2003)
330. Peter V. Sushko, A.L.Shluger, Katsuro Hayashi, Masahiro Hirano, and Hideo Hosono: Electron Localization and a Confined Electron Gas in Nanoporous Inorganic Electrides; *Physical Review Letters*, 91[12], 126401-1~4(2003)
331. Hiromichi Ohta, Kenji Nomura, Hidenori Hiramatsu, Kazushige Ueda, Toshio Kamiya, Masahiro Hirano, and Hideo Hosono: Frontier of transparent oxide semiconductors; *Solid-State Electronics* 47, 2261–2267 (2003)
332. Hidenori Hiramatsu, Kazushige Ueda, Kouhei Takafuji, Hiromichi Ohta, Masahiro Hirano, Toshio Kamiya, and Hideo Hosono: Intrinsic excitonic photoluminescence and band-gap engineering of wide-gap p-type oxychalcogenide epitaxial films of LnCuOCh (Ln=La, Pr, and Nd; Ch=S or Se) semiconductor alloys; *J. Appl. Phys.*, 94[9], 5805-5808 (2003)
333. P. V. Sushko, A.L. Shluger, K. Hayashi, M. Hirano, and H. Hosono: Hopping and optical absorption of electrons in nano-porous crystal 12CaO·7Al₂O₃; *Thin Solid Films*, 445, 161(2003)
334. K.-i, Kawamura, K. Maekawa, H. Yanagi, M. Hirano, and H. Hosono: Observation of carrier dynamics in CdO thin films by excitation with femtosecond laser pulse; *Thin Solid Films*, 445, 182(2003)
335. D. Ginley, B. Roy, A. Ode, C. Warmsingh, Y. Yoshida, P. Parilla, C. Teplin, T. Kaydanova, A. Miedaner, C. Curtis, A. Martinson, T. Coutts, D. Readey, H. Hosono, and J. Perkins: Non-vacuum and PLD growth of next generation TCO materials; *Thin Solid Films*, 445, 193(2003)
336. H. Hiramatsu, K. Ueda, H. Ohta, M. Hirano, T. Kamiya, and H. Hosono: Wide gap p-type degenerate semiconductor: Mg-doped LaCuOSe; *Thin Solid Films*, 445, 304(2003)
337. Y. Toda, M. Miyakawa, K. Hayashi, T. Kamiya, M. Hirano, and H. Hosono: Thin film fabrication of nano-porous 12CaO·7Al₂O₃ crystal and its conversion into transparent conductive films by light illumination; *Thin Solid Films*, 445, 309(2003)
338. H. Ohta, M. Kamiya, T. kamiya, M. Hirano, and H. Hosono: UV-detector based on pn-heterojunction diode composed of transparent oxide semiconductors, p-NiO/n-ZnO; *Thin Solid Films*, 445, 317(2003)
339. K. Nomura, H. Ohta, K. Ueda, T. Kamiy, M. Hirano, and H. Hosono: Electron transport in InGaO₃(ZnO)_m(m=integer) studied using single-crystalline thin films and transparent MISFETs; *Thin Solid Films*, 445, 322(2003)
340. T. SASAKI, K. MATSUNAGA, H. OHTA, H. HOSONO, T. YAMAMOTO, and Y. IKUHARA: Atomic and electronic structures of Cu/a-Al₂O₃ interfaces prepared by pulsed-laser deposition; *Science and Technology of Advanced Materials*, 4, 575-584 (2003)

2004

341. Shuwu Yang, Junko N. Kondo, Katsuro Hayashi, Masahiro Hirano, Kazunari Domen, and Hideo Hosono: Formation and Desorption of Oxygen Species in Nanoporous Crystal $12\text{CaO}/7\text{Al}_2\text{O}_3$; *Chem. Mater.*, 16[1], 104-110(2004)
342. Koichi Kajihara, Linards Skuja, Masahiro Hirano, and Hideo Hosono: Role of Mobile Interstitial Oxygen Atoms in Defect Processes in Oxides: Interconversion between Oxygen-Associated Defects in SiO_2 Glass; *Physical Review Letters*, 92[1], 015504-1(2004)
343. K. KAWAMURA, M. HIRANO, T. KUROBORI, D. TAKAMIZU, T. KAMIYA, and H. HOSONO: Femtosecond-laser-encoded distributed-feedback color center laser in lithium fluoride single crystals; *Applied Physics Letters*, 84[3], 331-313(2004)
344. H. HIRAMATSU, K. UEDA, H. OHTA, M. HIRANO, T. KAMIYA, H. HOSONO: Wide gap p-type degenerate semiconductor: Mg-doped LaCuOSe ; *Thin Solid Films*, 445, 304-308(2004)
345. Hayato Kamioka, Hidenori Hiramatsu, Hiromichi Ohta, Masahiro Hirano, Kazushige Ueda, Toshio Kamiya, Hideo Hosono: Third-order optical nonlinearity originating from room-temperature exciton in layered compounds LaCuOS and LaCuOSe ; *Applied Physics Letters*, 84[6], 879-882(2004)
346. H. OHTA, T. KAMBAYASHI, K. NOMURA, M. HIRANO, K. ISHIKAWA, H. TAKEZOE, and H. HOSONO: Transparent organic thin-film transistor with a laterally grown non-planar phthalocyanine channel; *Advanced Materials*, 16[4], 312-316(2004)
347. H. HIRAMATSU, H. OHTA, T. SUZUKI, C. HONJO, Y. IKUHARA, K. UEDA, T. KAMIYA, M. HIRANO, and H. HOSONO: Mechanism for Heteroepitaxial Growth of Transparent P-Type Semiconductor: LaCuOS by Reactive Solid-Phase Epitaxy; *Crystal Growth & Design*, 4[2], 301-307(2004)
348. M. YASUKAWA, K. UEDA, and H. HOSONO: Thermoelectric properties of layered oxyselenides $\text{La}_{1-x}\text{Sr}_x\text{CuOSe}$ ($x=0$ to 0.2); *J. Appl. Phys.*, 95[7], 3594-5397(2004)
349. K. UEDA, H. HIRAMATSU, H. OHTA, M. HIRANO, T. KAMIYA, and H. HOSONO: Single-atomic-layered quantum wells built in wide-gap semiconductors LnCuOCh (Ln =lanthanide, Ch =chalcogen); *Phys. Rev.*, B 69, 155305(2004)
350. T. KAMIYA, H. OHTA, M. KAMIYA, K. NOMURA, K. UEDA, M. HIRANO, and H. HOSONO: Li-doped NiO epitaxial thin film with atomically flat surface; *J. Mater. Res.* 19[3], 913-920 (2004)
351. Y. IKUTA, K. KAJIHARA, M. HIRANO, and H. HOSONO: Correlation between oxygen-deficient center formation and volume compaction in synthetic SiO_2 glass upon ArF or F_2 excimer-laser irradiation; *Appl. Opt.*, 43[11], 2332(2004)
352. K. NOMURA, H. OHTA, K. UEDA, T. KAMIYA, M. HIRANO, and H. HOSONO: All oxide transparent MISFET using high-k dielectrics gates; *Microelectronic Engineering*, 72, 294-298 (2004)
353. Y. Toda, S. Matsuishi, K. Hayashi, K. Ueda, T. Kamiya, M. Hirano and H. Hosono: Field emission of electron anions clathrated in subnanometer-sized cages of $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(4e^-)$; *Adv. Mater.*, 16, 685-689 (2004)
354. K. KAJIHARA, Y. IKUTA, M. OTO, M. HIRANO, L. SKUJA, and Hideo Hosono: UV-VUV laser induced phenomena in SiO_2 glass; *Nuclear Instruments and Methods in Physics Research B*, 218, 323-331 (2004)
355. K. KAWAMURA, D. TAKAMIZU, T. KUROBORI, T. KAMIYA, M. HIRANO, and H. HOSONO: Nano-fabrication of optical devices in transparent dielectrics: volume gratings in SiO_2 and DFB Color center laser in LiF ; *Nuclear Instruments and Methods in Physics Research B*, 218, 332-336 (2004)
356. H. HOSONO: Built-in Nanostructures in Transparent Oxides for Novel Photonic and Electronic functions Materials; *Int. J. Appl. Ceram. Technol*, 1[2], 106-118(2004)

357. H. OHTA, K. NOMURA, H. HIRAMATSU, T. SUZUKI, K. UEDA, T. KAMIYA, M. HIRANO, Y. IKUHARA, and H. HOSONO: High-Quality Epitaxial Film Growth of Transparent Oxide Semiconductors; *J. Ceram.Soc.Jap.*, 112[S], S602-S609(2004)
358. T. KAMIYA, H. OHTA, H. HIRAMATSU, K. HAYASHI, K. NOMURA, S. MATSUIISHI, K. UEDA, M. HIRANO, and H. HOSONO: Natural nanostructures in ionic semiconductors; *Microelectronic Engineering*, 73-74, 620-626 (2004)
359. K. NOMURA, H. OHTA, K. UEDA, T. KAMIYA, M. ORITA, M. HIRANO, T. SUZUKI, C. HONJYO, Y. IKUHARA, and H. HOSONO: Growth mechanism for single-crystalline thin film of $\text{InGaO}_3(\text{ZnO})_5$ by reactive solid-phase epitaxy; *J. Appl. Phys.*, 95[10], 5532-5539(2004)
360. K. HAYASHI, S. MATSUIISHI, M. HIRANO, and H. HOSONO: Formation of Oxygen Radicals in $12\text{CaO}/7\text{Al}_2\text{O}_3$: Instability of Extraframework Oxide Ions and Uptake of Oxygen Gas; *J. Phys. Chem.*, B, 108, 8920-8925(2004)
361. H. HOSONO: Functioning of traditional ceramics $12\text{CaO}/7\text{Al}_2\text{O}_3$ utilizing built-in nano-porous structure; *Sci. Tech. Adv. Mater.*, 5, 409-416(2004) Preface あり
362. H. HIRAMATSU, K. UEDA, K. TAKAFUJI, H. OHTA, M. HIRANO, T. KAMIYA, and H. HOSONO: Fabrication of heteroepitaxial thin films of layered oxychalcogenides LnCuOCh ($\text{Ln} = \text{La}-\text{Nd}$; $\text{Ch} = \text{S}-\text{Te}$) by reactive solid-phase epitaxy; *J. Mater. Res.*, 19[7], 2137-2143(2004)
363. K. UEDA, H. HOSONO, and N. HAMADA: Energy band structure of LaCuOCh ($\text{Ch} = \text{S}, \text{Se}$ and Te) calculated by the full-potential linearized augmented plane-wave method; *J. Phys.:Condens. Matter*, 16, 5179-5186(2004)
364. H. KAMIOKA, H. HIRAMATSU, M. HIRANO, K. UEDA, T. KAMIYA and H. HOSONO: Quantum beat between two excitonic levels split by spin-orbit interactions in the oxychalcogenide LaCuOS ; *Optics Letter*, 29[14], 1659-1661(2004)
365. H. HIRAMATSU, K. UEDA, K. TAKAFUJI, H. OHTA, M. HIRANO, T. KAMIYA, and H. HOSONO: Degenerate electrical conductive and excitonic photoluminescence properties of epitaxial films of wide gap p-type layered oxychalcogenides, LnCuOCh ($\text{Ln} = \text{La}, \text{Pr}$ and Nd ; $\text{Ch} = \text{S}$ or Se) *Appl. Phys. A* 79, 1521-1523 (2004)
366. H. HIRAMATSU, K. UEDA, K. TAKAFUJI, H. OHTA, M. HIRANO, T. KAMIYA, and H. HOSONO: Heteroepitaxial growth of wide gap p-type semiconductors: LnCuOCh ($\text{Ln} = \text{La}, \text{Pr}$ and Nd ; $\text{Ch} = \text{S}$ or Se) by reactive solid-phase epitaxy; *Appl. Phys. A* 79, 1517-1520 (2004)
367. H. KAMIOKA, H. HIRAMATSU, K. HAYASHI, M. HIRANO, and H. HOSONO: Photonic materials utilizing naturally occurring nanostructures; *Journal of Photochemistry and Photobiology A: Chemistry*, 166, 141-147 (2004)
368. T. SAKAI, K. MATSUNAGA, H. OHTA, H. HOSONO, T. YAMAMOTO and Y. IKUHARA: Atomic and Electronic Structures of $\text{Ni/YSZ}(111)$ Interface; *Materials Transactinos*, 45[7], 2137-2143(2004)
369. K. NOMURA, T. KAMIYA, H. OHTA, K. UEDA, M. HIRANO, and H. HOSONO: Carrier transport in transparent oxide semiconductor with intrinsic structural randomness probed using single-crystalline $\text{InGaO}_3(\text{ZnO})_5$ films; *Appl. Phys. Lett.*, 85[11] 1993-1995(2004)
370. T. KUROHORI, T. KITAO, Y. HIROSE, K. KAWAMURA, D. TAKAMIZU, M. HIRANO, H. HOSONO: Laser-active colour centres with functional periodic structures in LiF fabricated by two interfering femtosecond laser pulses; *Radiation Measurement*, 38, 759-762(2004)
371. F. OBA, H. OHTA, Y. SATO, H. HOSONO, T. YAMAMOTO, and Y. IKUHARA: Atomic structure of $[0001]$ -tilt grain boundaries in ZnO : A high-resolution TEM study of fiber-textured thin films; *Phys. Rev. B* 70, 125415 (2004)
372. H. HIRAMATSU, K. UEDA, T. KAMUYA, H. OHTA, M. HIRANO, and H. HOSONO:

- Synthesis of single-phase layered oxychalcogenide $\text{La}_2\text{CdO}_2\text{Se}_2$: crystal structure, optical and electrical properties; *J. Mater. Chem.*, 14, 2946-2950(2004)
373. K. KAJIHARA, T. MIURA, H. KAMIOKA, M. HIRANO, L. SKUJA, and H. HOSONO: Surface Dissolution and Diffusion of Oxygen Molecules in SiO_2 Glass; *J. Ceram. Soc. Jpn.*, 112[10], 559-562(2004)
374. T. KUROBORI, T. KITAO, Y. HIROSE, K. KAWAMURA, D. TAKAMIZU, M. HIRANO, and H. HOSONO: Laser-active colour centres with functional periodic structures in LiF fabricated by two interfering femtosecond laser pulses; *Radiation Measurements*, 38, 759-762(2004)
375. K. KAJIHARA, L. SKUJA, M. HIRANO, H. HOSONO: Interconversion between non-bridging oxygen hole center and peroxy radical in F_2 -laser-irradiated SiO_2 glass; *J. Non-Cry. Sol.*, 345&346, 219-223(2004)
376. L. SKUJA, K. KAJIHARA, Y. IKUTA, M. HIRANO, H. HOSONO: Urbach absorption edge of silica: reduction of glassy disorder by fluorine doping; *J. Non-Cry. Sol.*, 345&346, 328-331(2004)
377. S. YANG, J. N. KONDO, K. HAYASHI, M. HIRANO, K. DOMEN, H. HOSONO: Partial oxidation of methane to syngas over promoted C12A7 ; *Applied Catalysis A: General*, 277, 239-246(2004)
378. H. HIRAMATSU, K. UEDA, T. KAMIYA, H. OHTA, M. HIRANO, H. HOSONO: Optical Properties and Two-Dimensional Electronic Structure in Wide-Gap Layered Oxychalcogenide: $\text{La}_2\text{CdO}_2\text{Se}_2$; *J. Phys. Chem.*, B108, 17344-17351 (2004)
379. M. OTO, S. KIKUGAWA, T. MIURA, M. HIRANO, and H. HOSONO: Fluorine doped silica glass fiber for deep ultraviolet light; *J. Non-Cryst. Sol.*, 349, 133-138(2004)
380. K. KAJIHARA, T. MIURA, H. KAMIOKA, M. HIRANO, L. SKUJA, and H. HOSONO: Spontaneous oxygen loading into SiO_2 glass by thermal anneal; *J. Non-Cryst. Sol.*, 349, 205-208(2004)
381. H. HARIMUCHI, J. KITAGAWA, M. ISHIZUKA, Y. KADOYA, M. YAMANISHI, S. MATSUISHI, and H. HOSONO: Observation of Jonscher law in ac hopping conduction of the electron-doped nanoporous crystal; $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ in a THz frequency range; *Phys. Rev.*, B 70, 193104 (2004)
382. K. HAYASHI, N. UEDA, M. HIRANO, and H. HOSONO: Effect of stability and diffusivity of extra-framework oxygen species on the formation of oxygen radicals in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Solid State Ionics*, 173, 89-94(2004)
383. S. MATSUISHI, K. HAYASHI, M. HIRANO, I. TANAKA, and H. HOSONO: Superoxide Ion Encaged in Nanoporous Crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Studied by Continuous Wave and Pulsed Electron Paramagnetic Resonance; *J. Phys. Chem.*, B 108, 18557-18568 (2004)
384. ★K. NOMURA, H. OHTA, A. TAKAGI, T. KAMIYA, M. HIRANO, H. HOSONO: Room-Temperature Fabrication of Transparent Flexible Thin Film Transistors Using Amorphous Oxide Semiconductors; *Nature*, 432, 488-492(2004)
385. T. SUGAWARA, W. FUTAKO, T. KAMIYA, I. SHIMIZU: High electric field response of wide bandgap $\alpha\text{-Si:H}$ photodiodes probed by transient current measurements; *J. Non-Cryst. Sol.*, 338-340, 802-805(2004).
386. H. MIZUTA, Y. FURUTA, T. KAMIYA, Y. T. TAN, Z. A. K. DURRANI, S. AMAKAWA, K. NAKAZATO, H. AHMED: Nanosilicon for single-electron devices; *Current Applied Physics*, 4, 98-101(2004)
387. 池内薫, 国吉貞行, 西村豊和, 安川雅啓, 河野敏夫, 植田和茂, 細野秀雄: 共沈法による層状ペロブスカイト $\text{Ba}_{n+1}\text{Sn}_n\text{O}_{3n+1}$ の合成と熱電特性; *粉末および粉末冶金*, 51, 875(2004)
388. S. NARASHIMA, M. HIROKI, K. UEDA, K. SHIMIZU, T. KAMIYA, M. HIRANO, and H. HOSONO: Electrical properties and local structure of n-type conducting

amorphous indium sulphide; *Philosophical Magazine letters*, 84[10], 665–671(2004)

2005

389. T. KUROBORI, T. YAMAKAGE, Y. HIROSE, K. KAWAMURA, M. HIRANO and H. HOSONO: Applications of Wide-Band-Gap Materials for Optoelectronic Functional Devices Fabricated by a Pair of Interfering Femtosecond Laser Pulses; *Jpn. J. Appl. Phys.*, 44, 910-913 (2005)
390. S. Matsuishi, K. Hayashi, M. Hirano, and H. Hosono: Hideride Ion as Photoelectron Donor in Microporous Crystal; *J. Am. Chem. Soc. (Commun.)*, 127, 12454-12455, (2005).
391. S. W. KIM, M. MIYAKAWA, K. HAYASHI, T. SAKAI, M. HIRANO, H. HOSONO: Simple and Efficient Fabrication of Room Temperature Stable Electride: Melt-Solidification and Glass Ceramics; *J. Am. Chem. Soc.*, 127, 1370-1371 (2005)
392. T. KAMBAYASHI, H. OHTA, H. HOSHI, M. HIRANO, H. HOSONO, H. TAKEZOE, and K. ISHIKAWA: Epitaxial growth of a copper-phthalocyanine on a transparent conductive substrate with an atomically flat surface; *Crystal Growth and Design*, 5, 143-146 (2005)
393. T. KUROBORI, Y. HIROSE, K. KAWAMURA, M. HIRANO, and H. HOSONO: Distributed-feedback color center lasers in wide-band gap materials fabricated by a pair of chirped femtosecond pulses; *Physica Status Solidi (c)*, 2, 637-640 (2005)
394. T. KAMIYA, and H. HOSONO: Built-in Quantum Dots in Nano-Porous Crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$: Simplified Views for Electronic Structure and Carrier Transport; *Jpn. J. Appl. Phys.*, 44, 774-782 (2005)
395. H. OHTA, S.-W. KIM, S. OHTA, K. KOUMOTO, M. HIRANO, and H. HOSONO: Reactive Solid-Phase Epitaxial Growth of Na_xCoO_2 ($x \sim 0.83$) via Lateral Diffusion of Na into a Cobalt Oxide Epitaxial Layer; *Cryst. Growth & Des.*, 5, 25-28 (2005)
396. L. SKUJA, M. HIRANO, H. HOSONO, and K. KAJIHARA: Defects in oxide glasses; *Phys. Stat. Sol. (c)*, 2, 15-24 (2005)
397. K. KAJIHARA, L. SKUJA, M. HIRANO, and H. HOSONO: Decomposition of peroxy radicals in SiO_2 glass with X-rays or KrF laser light; *Phys. Sstat. Sol. (c)*, 2, 314-317 (2005)
398. H. HIRAMATSU, H. KAMIOKA, K. UEDA, M. HIRANO, and H. HOSONO: Electrical and Photonic Functions Originating from Low-Dimensional Structures in Wide-Gap Semiconductors LnCuOCh ($\text{Ln}=\text{lanthanide}$, $\text{Ch}=\text{chalcogen}$): A Review; *J. Ceram. Soc. Jpn.*, 113, 10-16 (2005)
399. K. HAYASHI, Y. TODA, T. KAMIYA, M. HIRANO, M. YAMANAKA, I. TANAKA, T. YAMAMOTO, and H. HOSONO: Electronic Insulator-Conductor Conversion in Hydride Ion-Doped $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ by Electron-Beam Irradiation; *Appl. Phys. Lett.*, 86, 022109 (2005)
400. M. MIYAKAWA, Y. TODA, K. HAYASHI, M. HIRANO, T. KAMIYA, N. MATSUNAMI, and H. HOSONO: Formation of inorganic electride thin films via site-selective extrusion by energetic inert gas ions; *J. Appl. Phys.*, 97, 023510(2005)
401. P. V. SHSHKO, A. L. SHLUGER, K. HAYASHI, M. HIRANO, and H. HOSONO: Photoinduced generation of electron anions in H-doped nanoporous oxide $12\text{CaO} \cdot \text{Al}_2\text{O}_3$: Toward an optically controlled formation of electriles; *Appl. Phys. Lett.*, 86, 092101-1~3(2005)
402. M. KATSUHARA, I. AOYAGI, H. NAKAJIMA, T. MORI, T. KAMBAYASHI, M. OFUJI, Y. TAKANISHI, K. ISHIKAWA, H. TAKEZOE, and H. HOSONO: Organic field-effect transistors based on new TTF-based liquid crystalline materials; *Synthetic Metals*, 149, 219-223 (2005)
403. K. HAYASHI, M. HIRANO, and H. HOSONO: Excess Oxygen in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$

- Studied by Thermogravimetric Analysis; *Chem. Lett.*, 34, 586-587 (2005)
404. H. HIRAMATSU, M. HIRANO, K. UEDA, T. KAMIYA, H. HOSONO: Excitonic properties related to valence band levels split by spin-orbit interaction in layered oxychalcogenide LaCuOCh ($\text{Ch}=\text{S}, \text{Se}$); *Journal of Luminescence*, 112, 66-70 (2005)
 405. K. HAYASHI, M. HIRANO, and H. HOSONO: Thermodynamics and Kinetics of Hydroxide Ion Formation in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *J. Phys. Chem.*, B 109, 11900-11906 (2005)
 406. F. OBA, Y. SATO, T. YAMAMOTO, H. OHTA, H. HOSONO, and Y. IKUHARA: Effect of boundary plane on the atomic structure of $[0001]$ $\Sigma 7$ tilt grain boundaries in ZnO ; *J. Mater. Sci.*, 40, 3067-3074 (2005)
 407. T. KAMIYA, K. UEDA, H. HIRAMATSU, H. KAMIOKA, H. OHTA, M. HIRANO, H. HOSONO: Two-dimensional electronic structure and multiple excitonic states in layered oxychalcogenide semiconductors, LaCuOCh ($\text{Ch}=\text{S}, \text{Se}, \text{Te}$): Optical properties and relativistic ab initio study; *Thin Solid Films*, 486, 98-103 (2005)
 408. Y. TAKEDA, K. NOMURA, H. OHTA, H. YANAGI, T. KAMIYA, M. HIRANO, and H. HOSONO: Growth of epitaxial ZnO thin films on lattice-matched buffer layer: Application of $\text{InGaO}_3(\text{ZnO})_6$ single-crystalline thin film; *Thin Solid Films*, 486, 28-32 (2005)
 409. TAKAGI, K. NOMURA, H. OHTA, H. YANAGI, T. KAMIYA, M. HIRANO, and H. HOSONO: Carrier transport and electronic structure in amorphous oxide semiconductor, $\alpha\text{-InGaZnO}_4$; *Thin Solid Films*, 486, 38-41 (2005)
 410. T. KAMIYA and H. HOSONO: Electronic structures and device applications of transparent oxide semiconductors: What is the real merit of oxide semiconductors?; *Applied Ceramic Technology*, 2[4], 285-294 (2005)
 411. M. MIYAKAWA, Y. TODA, K. HAYASHI, M. HIRANO, T. KAMIYA, N. MATSUNAMI, H. HOSONO: Formation of inorganic electride thin films via site-selective extrusion by energetic inert gas ions; *J. Appl. Phys.*, 97, 023510, (2005)
 412. T. KUROBORI, T. YAMAKAGE, Y. HIROSE, K. KAWAMURA, M. HIRANO and H. HOSONO: Applications of Wide-Band-Gap Materials for Optoelectronic Functional Devices Fabricated by a Pair of Interfering Femtosecond Laser Pulses; *Jpn. J. Appl. Phys.*, 44, 910-913 (2005)
 413. S. W. KIM, M. MIYAKAWA, K. HAYASHI, T. SAKAI, M. HIRANO, H. HOSONO: Simple and Efficient Fabrication of Room Temperature Stable Electride: Melt-Solidification and Glass Ceramics; *J. Am. Chem. Soc.*, 127, 1370-1371 (2005)
 414. T. KAMBAYASHI, H. OHTA, H. HOSHI, M. HIRANO, H. HOSONO, H. TAKEZOE, and K. ISHIKAWA: Epitaxial growth of a copper-phthalocyanine on a transparent conductive substrate with an atomically flat surface; *Crystal Growth and Design*, 5, 143-146 (2005)
 415. T. KUROBORI, Y. HIROSE, K. KAWAMURA, M. HIRANO, and H. HOSONO: Distributed-feedback color center lasers in wide-band gap materials fabricated by a pair of chirped femtosecond pulses; *Physica Status Solidi (c)*, 2, 637-640 (2005)
 416. T. KAMIYA, and H. HOSONO: Built-in Quantum Dots in Nano-Porous Crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$: Simplified Views for Electronic Structure and Carrier Transport; *Jpn. J. Appl. Phys.*, 44, 774-782 (2005)
 417. H. OHTA, S.-W. KIM, S. OHTA, K. KOUMOTO, M. HIRANO, and H. HOSONO: Reactive Solid-Phase Epitaxial Growth of Na_xCoO_2 ($x \sim 0.83$) via Lateral Diffusion of Na into a Cobalt Oxide Epitaxial Layer; *Cryst. Growth & Des.*, 5, 25-28 (2005)
 418. L. SKUJA, M. HIRANO, H. HOSONO, and K. KAJIHARA: Defects in oxide glasses; *Phys. Stat. Sol. (c)*, 2, 15-24 (2005)
 419. K. KAJIHARA, L. SKUJA, M. HIRANO, and H. HOSONO: Decomposition of peroxy radicals in SiO_2 glass with X-rays or KrF laser light; *Phys. Stat. Sol. (c)*, 2, 314-317 (2005)

420. H. HIRAMATSU, H. KAMIOKA, K. UEDA, M. HIRANO, and H. HOSONO: Electrical and Photonic Functions Originating from Low-Dimensional Structures in Wide-Gap Semiconductors LnCuOCh (Ln=lanthanide, Ch=chalcogen): A Review; *J. Ceram. Soc. Jpn.*, 113, 10-16 (2005)
421. K. HAYASHI, Y. TODA, T. KAMIYA, M. HIRANO, M. YAMANAKA, I. TANAKA, T. YAMAMOTO, and H. HOSONO: Electronic Insulator-Conductor Conversion in Hydride Ion-Doped $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ by Electron-Beam Irradiation; *Appl. Phys. Lett.*, 86, 022109 (2005)
422. M. MIYAKAWA, Y. TODA, K. HAYASHI, M. HIRANO, T. KAMIYA, N. MATSUNAMI, and H. HOSONO: Formation of inorganic electride thin films via site-selective extrusion by energetic inert gas ions; *J. Appl. Phys.*, 97, 023510(2005)
423. P. V. SHSHKO, A. L. SHLUGER, K. HAYASHI, M. HIRANO, and H. HOSONO: Photoinduced generation of electron anions in H-doped nanoporous oxide $12\text{CaO} \cdot \text{Al}_2\text{O}_3$: Toward an optically controlled formation of electrides; *Appl. Phys. Lett.*, 86, 092101-1~3(2005)
424. M. KATSUHARA, I. AOYAGI, H. NAKAJIMA, T. MORI, T. KAMBAYASHI, M. OFUJI, Y. TAKANISHI, K. ISHIKAWA, H. TAKEZOE, and H. HOSONO: Organic field-effect transistors based on new TTF-based liquid crystalline materials; *Synthetic Metals*, 149, 219-223 (2005)
425. K. HAYASHI, M. HIRANO, and H. HOSONO: Excess Oxygen in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Studied by Thermogravimetric Analysis; *Chem. Lett.*, 34, 586-587 (2005)
426. H. HIRAMATSU, M. HIRANO, K. UEDA, T. KAMIYA, H. HOSONO: Excitonic properties related to valence band levels split by spin-orbit interaction in layered oxychalcogenide LaCuOCh (Ch=S,Se); *Journal of Luminescence*, 112, 66-70(2005)
427. F. OBA, Y. SATO, T. YAMAMOTO, H. OHTA, H. HOSONO, and Y. IKUHARA: Effect of boundary plane on the atomic structure of [0001] $\Sigma 7$ tilt grain boundaries in ZnO; *J. Mater. Sci.*, 40, 3067-3074(2005)
428. T. KAMIYA, K. UEDA, H. HIRAMATSU, H. KAMIOKA, H. OHTA, M. HIRANO, H. HOSONO: Two-dimensional electronic structure and multiple excitonic states in layered oxychalcogenide semiconductors, LaCuOCh (Ch=S, Se, Te): Optical properties and relativistic ab initio study; *Thin Solid Films*, 486, 98-103 (2005)
429. Y. TAKEDA, K. NOMURA, H. OHTA, H. YANAGI, T. KAMIYA, M. HIRANO, and H. HOSONO: Growth of epitaxial ZnO thin films on lattice-matched buffer layer: Application of $\text{InGaO}_3(\text{ZnO})_6$ single-crystalline thin film; *Thin Solid Films*, 486, 28-32 (2005)
430. A. TAKAGI, K. NOMURA, H. OHTA, H. YANAGI, T. KAMIYA, M. HIRANO, and H. HOSONO: Carrier transport and electronic structure in amorphous oxide semiconductor, $\alpha\text{-InGaZnO}_4$; *Thin Solid Films*, 486, 38-41(2005)
431. T. KAMIYA and H. HOSONO: Electronic structures and device applications of transparent oxide semiconductors: What is the real merit of oxide semiconductors?; *Applied Ceramic Technology*, 2[4], 285-294(2005)
432. M. MIYAKAWA, Y. TODA, K. HAYASHI, M. HIRANO, T. KAMIYA, N. MATSUNAMI, H. HOSONO: Formation of inorganic electride thin films via site-selective extrusion by energetic inert gas ions; *J. Appl. Phys.*, 97, 023510, (2005)
433. K. HAYASHI, M. HIRANO, and H. HOSONO: Excess Oxygen in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Studied by Thermogravimetric Analysis; *Chem. Lett.*, 34, 586-587(2005)
434. T. KAMIYA, S. NARUSHIMA, H. MIZOGUCHI, K. SHIMIZU, K. UEDA, H. OHTA, M. HIRANO and H. HOSONO: Electrical properties and structure of p-type amorphous oxide semiconductor $x\text{ZnO} \cdot \text{Rh}_2\text{O}_3$; *Adv. Funct. Mater.*, 15, 968-974 (2005)
435. K. KAJIHARA, M. HIRANO, M. URAMOTO, Y. MORIMOTO, L. SKUJA, and H. HOSONO: Interstitial oxygen molecules in amorphous SiO_2 . I. Quantitative

- concentration analysis by thermal desorption, infrared photoluminescence, and vacuum-ultraviolet optical absorption; *Journal of Applied Physics*, 98, 013527, (2005)
436. K. KAJIHARA, H. KAMIOKA, M. HIRANO, T. MIURA, L. SKUJA, H. HOSONO: Interstitial oxygen molecules in amorphous SiO₂. II. The influence of common dopants (SiOH, SiF, and SiCl groups) and fictive temperature on the decay of singlet photoluminescence; *Journal of Applied Physics*, 98, 013528 (2005)
 437. K. KAJIHARA, H. KAMIOKA, M. HIRANO, T. MIURA, L. SKUJA, H. HOSONO: Interstitial oxygen molecules in amorphous SiO₂. III. Measurements of dissolution kinetics, diffusion coefficient, and solubility by infrared photoluminescence; *Journal of Applied Physics*, 98, 013529 (2005)
 438. M. YASUKAWA, K. KEUCHI, T. KONO, K. UEDA, and H. HOSONO: Thermoelectric properties of delafossite-type layered oxides AgIn_{1-x}Sn_xO₂; *J. Appl. Phys.*, 98, 013706 (2005)
 439. K. UEDA, H. HOSONO, N. HAMADA: Valence-band structures of layered oxychalcogenides, LaCuOCh (Ch=S, Se, and Te), studied by ultraviolet photoemission spectroscopy and energy-band calculations; *J. Appl. Phys.*, 98, 043506 (2005)
 440. N. KIKUCHI, H. HOSONO, H. KAWAZOE, O. TANEGASHIMA, I. OTA, and Y. KIMURA: Carrier Generation in Wide-Gap Conductor, Zinc Antimonate; *J. Am. Ceram. Soc.*, 88[10], 2793-2797 (2005)
 441. K. KAJIHARA, M. HIRANO, L. SKUJA, and H. HOSONO: Reactions of SiCl groups in amorphous SiO₂ with mobile interstitial chemical species: Formation of interstitial Cl₂ and HCl molecules, and role of interstitial H₂O molecules; *J. Appl. Phys.*, 98[4], 043415-1~9 (2005)
 442. E. MOTOMITSU, M. HIRANO, H. YANAGI, T. KAMIYA, and H. HOSONO: Bipolar Room Temperature Ferromagnetic Semiconductor LaMnOP; *J. J. Appl. Phys.*, 44[44], L 1344-L 1347(2005)
 443. TROFYMLUK, Y. TODA, H. HOSONO, and A. NAVEOTSKY: Energetics of Formation and Oxidation of Microporus Calcium Aluminates: A New Class of Electrides and Ionic Conductors; *Chem. Mater.*, 17, 5574-5579(2005)
 444. S. OHTA, T. NOMURA, H. OHTA, M. HIRANO, H. HOSONO, and K. KOUMOTO: Large thermoelectric performance of heavily Nb-doped SrTiO₃ epitaxial film at high temperature; *Appl. Phys. Lett.*, 87[9], 095108(2005)
 445. P. V. SUSHKO, A. L. SHLUGER, K. HAYASHI, M. HIRANO, and H. HOSONO: Localization assisted by the lattice relaxation and the optical absorption of extra-framework electrons in 12CaO·Al₂O₃; *Materials Science and Engineering C*, 25, 722-726(2005)
 446. K. KAJIHARA, M. HIRANO, L. SKUJA, and H. HOSONO: Vacuum-ultraviolet absorption of hydrogenated and deuterated silanol groups and interstitial water molecules in amorphous SiO₂; *Physical Review*, B72, 214112(2005)
 447. SAITOH, S. MATSUIISHI, M. OTO, T. MIURA, M. HIRANO, and H. HOSONO: Elucidation of coordination structure around Ce³⁺ in doped SiO₂ glasses using pulsed electron paramagnetic resonance: Effect of phosphorus, boron, and phosphorus-boron codoping; *Physical Review*, B72, 212101(2005)
 448. T. KAMIYA, S. AIBA, M. MIYAKAWA, K. NOMURA, S. MATSUIISHI, K. HAYASHI, K. UEDA, M. HIRANO and H. HOSONO: Field-Induced Current Modulation in Nanoporous Semiconductor, Electron-Doped 12CaO · 7Al₂O₃; *Chem. Mater.*, 17[25], 6311-6316(2005)
 449. Y. TODA, S. W. KIM, K. HAYASHI, M. HIRANO, T. KAMIYA, H. HOSONO, T. HIRAGUCHI, and H. YASUDA: Intense thermal field emission from room-temperature stable electride; *Appl. Phys. Lett.*, 87, 254103(2005)
 450. H. HAYASHI, P. SUSHKO, A. SHLUGER, M. HIRANO, and H. HOSONO: Hydride

- Ion as a Two-Electron Donor in a Nanoporous Crystalline Semiconductor $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *J. Phys. Chem. B*, 109, 23836-23842(2005)
451. T. KAMIYA and H. HOSONO: Creation of New Functions in Transparent Oxides Utilizing Nanostructures Embedded in Crystal and Artificially Encoded by Laser Pulses; *Semiconductor Science and Technology*, 20, S92-S102(2005)
452. H. OHTA, S-W. KIM, S. OHTA, K. KOUMOTO, M. HIRANO and H. HOSONO: Reactive solid-phase epitaxial growth of Na_xCoO_2 ($x \sim 0.83$) via lateral diffusion of Na into cobalt oxide epitaxial layer; *Cryst. Growth Des.*, 5, 25(2005)
453. S. OHTA, T. NOMURA, H. OHTA, M. HIRANO, H. HOSONO and K. KOUMOTO: Large thermoelectric performance of heavily Nb-doped SrTiO_3 epitaxial film at high temperature; *Appl. Phys. Lett.*, 87, 092108(2005)
454. H. HIRAMATSU, K. UEDA, H. OHTA, T. KAMITA, M. HIRANO and H. HOSONO: Excitonic blue luminescence from p- $\text{LaCuOSe}/\text{n-InGaZn}_5\text{O}_8$ light-emitting diode at room temperature; *Appl. Phys. Lett.*, 87, 211107(2005)

2006

455. Kosuke Matsuzaki, Hiroshi Yanagi, Toshio Kamiya, Hidenori Hiramatsu, Kenji Nomura, Masahiro Hirano, and Hideo Hosono: Field-induced current modulation in epitaxial film of deep-ultraviolet transparent oxide semiconductor Ga_2O_3 ; *Appl. Phys. Lett.*, 88, 092106-1 - 3, (2006).
456. H.Hosono, T.Kamiya and M.Hirano, Function Cultivation of Transparent Oxides Utilizing Built-In Nanostructure, *Bull.Chem.Soc.Jpan.* 79,1-24(2006).
457. M. Miyakawa, H. Kamioka, M. Hirano, T. Kamiya, H. Hosono: Photoluminescence of Au^- formed in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ single crystal by Au^+ -implantation; *Nuclear Instruments and Methods in Physics Research B*, 250, 368-371, (2006).
458. ★Yoichi Kamihara, Hidenori Hiramatsu, Masahiro Hirano, Ryuto Kawamura, Hiroshi Yanagi, Toshio Kamiya, and Hideo Hosono: Iron-based layered superconductor: LaOFeP ; *J. Am. Chem. Soc. (Communication)*, 128, 10012-10013, (2006).
459. Masahiro Miyauchi, Hiromasa Tokudome, Yoshitake Toda, Toshio Kamiya, and Hideo Hosono: Electron field emission from TiO_2 nanotube arrays synthesized by hydrothermal reaction; *Appl. Phys. Lett.*, 89, 043114-1 - 3, (2006).
460. Hidenori Hiramatsu, Hayato Kamioka, Kazushige Ueda, Hiromichi Ohta, Toshio Kamiya, Masahiro Hirano, and Hideo Hosono: Opto-electronic properties and light-emitting device application of widegap layered oxychalcogenides: LaCuOCh ($\text{Ch} = \text{chalcogen}$) and $\text{La}_2\text{CdO}_2\text{Se}_2$; *phys. stat. sol. (a)*, 203,2800-2811, (2006).
461. Hisato Yabuta, Masafumi Sano, Katsumi Abe, Toshiaki Aiba, Tohru Den, Hideya Kumomi, Kenji Nomura, Toshio Kamiya, and Hideo Hosono: High-mobility thin-film transistor with amorphous InGaZnO_4 channel fabricated by room temperature rf-magnetron sputtering; *Appl. Phys. Lett.*, 89, 112123-1 - 3, (2006).
462. Hideo Hosono: Novel Transparent Oxide Semiconductors and Device Applications: (Plenary Talk) *1st International Symposium on TRansparent Conductive Oxides* (23-25 October 2006, Creta, Greece), (2006).
463. T. Kamiya, Y. Takeda, K. Nomura, H. Ohta, H. Yanagi, M. Hirano, H. Hosono: Self-Adjusted, Three-Dimensional Lattice-Matched Buffer Layer for Growing ZnO Epitaxial Film: Homologous Series Layered Oxide, $\text{InGaO}_3(\text{ZnO})_5$; *Cryst. Growth Des.*, 6, 2451-2456, (2006).
464. H. YANAGI, J. TATE, S. PARK, C -H PARK, D. A. KESZLER, M HIRANO and H. HOSONO: Valence band structure of BaCuSF and BaCuSeF ; *J. Appl. Phys.*, 100, 083705, (2006).

465. Sung-Wng Kim, Katsuro Hayashi, Masahiro Hirano, Hideo Hosono, and Isao Tanaka: Electron Carrier Generation in a Refractory Oxide $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ by Heating in Reducing Atmosphere: Conversion from an Insulator to a Persistent Conductor; *J. Am. Ceram. Soc.*, 89, 3294-3298, (2006).
466. Masashi Miyakawa, Hayato Kamioka, Masahiro Hirano, Toshio Kamiya, Peter V. Sushko, A.L.Shluger, N. Matsunami, and Hideo Hosono: Photoluminescence from Au ion-implanted nanoporous single-crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Phys. Rev. B*, 73, 205108-1 - 7, (2006).
467. Hiroshi Yanagi, Shuichi Ohno, Toshio Kamiya, Hidenori Hiramatsu, Masahiro Hirano, and Hideo Hosono: Magnetic and carrier transport properties of Mn-doped p-type semiconductor LaCuOSe : An investigation of the origin of ferromagnetism; *J. Appl. Phys.*, 100, 033717-1 - 5, (2006).
468. Y.Ishida, A.Fujimori, H.Ohta, M.Hirano and H.Hosono: Potential profiling of the nanometer-scale charge-depletion layer in n-ZnO/p-NiO junction using photoemission spectroscopy; *Appl. Phys. Lett.*, 89, 153502-1-3, (2006).
469. Koichi Kajihara, Linards Skuja, Masahiro Hirano, and Hideo Hosono: In situ observation of the formation, diffusion, and reactions of hydrogenous species in F_2 -laser-irradiated SiO_2 glass using a pump-and-probe technique; *Phys. Rev. B*, 74, 094202, (2006).
470. M. Miyakawa, M. Hirano, T. Kamiya, H. Hosono: Large conductivity enhancement in polycrystalline $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ thin films induced by extrusion of clathrated O_2 ions by hot Au^+ implantation and ultraviolet light illumination; *Nuclear Instruments and Methods in Physics Research B*, 250, 155-158, (2006).
471. Jiro KITAGAWA, Masahiro ISHIZAKA, Yutaka KADOYA, Satoshi MATSUIISHI and Hideo HOSONO: Possible Polaron Effect in Complex Terahertz Conductivity of Electron-Doped Nanoporous Crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Journal of the Physical Society of Japan*, 75, 084715, (2006).
472. K. Kurashige, Yoshitake Toda, Satoru Matstuishi, Katsuro Hayashi, Masahiro Hirano, and Hideo Hosono: Czochralski Growth of $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Crystals; *Cryst. Growth Design*, 6, 1602-1605, (2006).
473. Kenji Sugiura, Hiromichi Ohta, Kenji Nomura, Masahiro Hirano, Hideo Hosono, Kunihito Koumoto: High electrical conductivity of layered cobalt oxide $\text{Ca}_3\text{Co}_4\text{O}_9$ epitaxial films grown by topotactic ion-exchange method; *Appl. Phys. Lett.*, 89, 032111, (2006)
474. C. X. Wang, Masahiro Hirano, and Hideo Hosono: Origin of Diameter-Dependent Growth Direction of Silicon Nanowires; *Nano Lett.*, 7, 1552-1555, (2006).
475. Ken-ich Kawamura, Masahiro Hirano, Toshio Kamiya, Hideo Hosono: Femtosecond-laser-encoded distributed-feedback color center laser in lithium fluoride single crystal; *J. Non-Cryst. Sol.*, 352, 2347-2350, (2006).
476. L. Skuja, K. Kajihara, M. Hirano, A. Saitoh, H. Hosono: An increased F_2 -laser damage in 'wet' silica glass due to atomic hydrogen: A new hydrogen-related E' -center; *J. Non-Cryst. Solids*, 352, 2297-2302, (2006).
477. Koichi Kajihara, Masahiro Hirano, Linards Skuja, Hideo Hosono: Vacuum-ultraviolet absorption of interstitial O_2 and H_2O molecules in SiO_2 glass; *J. Non-Cryst. Solids*, 352, 2303-2306, (2006)
478. Koichi Kajihara, Masahiro Hirano, Linards Skuja, Hideo Hosono: Modification of vacuum-ultraviolet absorption of SiOH groups in SiO_2 glass with temperature, F_2 laser irradiation, and H-D isotope exchange; *J. Non-Cryst. Solids*, 352, 2307-2310, (2006).
479. H.Ohta, A. Mizutani, K.Sugiura, M. Hirano, H.Hosono, and K.Koumoto: Surface Modification of Glass Substrates for Oxide Heteroepitaxy: Pasteable Three-Dimensionally Oriented Layered Oxide Thin Films; *Adv. Mater.*, 18, 1649-1652,

- (2006).
480. ★Hideo Hosono: Ionic Amorphous Oxide Semiconductors: materials design, carrier transport, and device application; *J. Non-Cryst. Sol.*, 352, 851-858, (2006).
 481. Koichi Kajihara, Masahiro Hirano, Linards Skuja, and Hideo Hosono: Role of Interstitial Voids in Oxides on Formation and Stabilization of Reactive Radicals: Interstitial HO₂ Radicals in F₂-Laser-Irradiated Amorphous SiO₂; *J. Am. Chem. Soc.*, 128, 5371-5374, (2006).
 482. Koichi Kajihara, Masahiro Hirano, Linards Skuja, Hideo Hosono: Interstitial OH Radicals in F₂-Laser-Irradiated Bulk Amorphous SiO₂; *J. Phys. Chem. B (Letters)*, 110, 10224-10227, (2006).
 483. Hiromasa Tawarayama, Futoshi Utsuno, Hiroyuki Inoue, Hideo Hosono, and Hiroshi Kawazoe: Coloration and Decoloration of Tungsten Phosphate Glasses by Heat Treatments at the Temperature Far below T_g under a Controlled Ambient; *Chem. Mater.*, 18, 2810-2816, (2006).
 484. Eiji Motomitsu, Hiroshi Yanagi, Toshio Kamiya, Masahiro Hirano, and Hideo Hosono: Synthesis and characterization of layered semiconductors MCuFCh (M = Sr, Eu, Ch = S, Se); *J. Sol. State Chem.*, 179, 1668-1673, (2006).
 485. Kenji Nomura, Akihiro Takagi, Toshio Kamiya, Hiromichi Ohta, Masahiro Hirano and Hideo Hosono: Amorphous Oxide Semiconductors Towards High-Performance Flexible Thin-Film Transistors; *Jpn. J. Appl. Phys.*, 45, 4303-4308, (2006).
 486. A.Saitoh, S.Matsuishi, C.Se-Weon, J.Nishii, M. Oto, M. Hirano, H. Hosono: Elucidation of Codoping Effects on the Solubility Enhancement of Er³⁺ in SiO₂ Glass: Striking Difference between Al and P Codoping; *J. Phys. Chem. B. (Letter)*, 110, 7617-7620, (2006).
 487. Sung Wng Kim, Yoshitake Toda, Katsuro Hayashi, Masahiro Hirano, and Hideo Hosono: Synthesis of a Room Temperature Stable 12CaO·7Al₂O₃ Electride from the Melt and Its Application as an Electron Field Emitter; *Chem. Mater.*, 18, 1938-1944, (2006).
 488. Yoshimitsu Kohama, Takeo Tojo, Hitoshi Kawaji, Tooru Atake, Satoru Matsuishi, and Hideo Hosono: Disorder of O₂⁻ ion and incorporation of O⁻ and O₂⁻ radicals in nanoporous crystal 12CaO·7Al₂O₃ studied by low-temperature heat capacity measurements; *Chem. Phys. Lett.*, 421, 558-561, (2006).
 489. Akira Saitoh, Shuhei Murata, Satoru Matsuishi, Masanori Oto, Taisuke Miura, Masahiro Hirano and Hideo Hosono: Phosphorus co-doping effect on photoluminescence in Ce³⁺-doped SiO₂ glasses: The formation of unique ligand field by P-co-doping; *Journal of Luminescence*, in press, (2006).
 490. Akira Saitoh, Satoru Matsuishi, Choi Se-Weon, Junji Nishii, Masanori Oto, Masahiro Hirano and Hideo Hosono: Elucidation of codoping effects on the solubility enhancement of Er³⁺ in SiO₂ glass: striking difference between Al and P codoping; *J. Phys. Chem B (Letter)*, in press, (2006).
 491. Kenji Sugiura, Hiromichi Ohta, Kenji Nomura, Hiroshi Yanagi, Masahiro Hirano, Hideo Hosono, and Kunihito Koumoto: Epitaxial Film Growth and Superconducting Behavior of Sodium-Cobalt Oxyhydrate, Na_xCoO₂yH₂O (x~0.3, y~1.3); *Inorg. Chem. (communication)*, 45, 1894-1896, (2006).
 492. Peter V. Sushko, A.L.Shluger, Katsuro Hayashi, Masahiro Hirano, Hideo Hosono: Role of hydrogen atoms in the photoinduced formation of stable electron centers in H-doped 12CaO·7Al₂O₃; *PHYSICAL REVIEW B*, 73, 045120, (2006).
 493. Kazushige Ueda, Hidenori Hiramatsu, Masahiro Hirano, Toshio Kamiya and Hideo Hosono: Wide-gap layered oxychalcogenide semiconductors: Materials, electronic structures and optoelectronic properties; *Thin Solid Films*, 496, 8-16, (2006).
 494. Peter V. Sushko, A.L.Shluger, Katsuro Hayashi, Masahiro Hirano, and Hideo

- Hosono: Mechanisms of oxygen ion diffusion in a nanoporous complex oxide $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Phys. Rev. B*, 73, 014101, (2006).
495. Y. OGO, K. NOMURA, H. YANAGI, H. OHTA, T. KAMIYA, M. HIRANO, H. HOSONO: Growth and structure of heteroepitaxial thin films of homologous compounds $\text{RAO}_3(\text{MO})_m$ by reactive solid-phase epitaxy: Applicability to a variety of materials and epitaxial template layers; *Thin Solid Films*, 496, 64 - 69 (2006)
 496. K. MATSUZAKI, H. HIRAMATSU, K. NOMURA, H. YANAGI, T. KAMIYA, M. HIRANO, H. HOSONO: Growth, structure and carrier transport properties of Ga_2O_3 epitaxial film examined for transparent field-effect transistor; *Thin Solid Films*, 496, 37-41 (2006)
 497. M. MIYAUCHI, H. TOKUDOME, Y. TODA, T. KAMIYA, and H. HOSONO: Electron field emission from TiO_2 nanotube arrays synthesized by hydrothermal reaction; *Appl. Phys. Lett.*, 89, 043114 (2006)
 498. K. MATSUZAKI, H. YANAGI, T. KAMIYA, H. HIRAMATSU, K. NOMURA, M. HIRANO, and H. HOSONO: Field-induced current modulation in epitaxial film of deep-ultraviolet transparent oxide semiconductor Ga_2O_3 ; *Appl. Phys. Lett.*, 88, 092106 (2006)
 499. M. MIYAKAWA, H. KAMIOKA, M. HIRANO, T. KAMIYA, P. V. SUSHKO, A. L. SHLUGER, N. MATSUNAMI, and H. HOSONO: Photoluminescence from Au ion-implanted nanoporous single-crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Phys. Rev. B*, 73, 205108-1 - 7(2006)
 500. K. MATSUZAKI, H. YANAGI, T. KAMIYA, H. HIRAMATSU, K. NOMURA, M. HIRANO, and H. HOSONO: Field-induced current modulation in epitaxial film of deep-ultraviolet transparent oxide semiconductor Ga_2O_3 ; *Appl. Phys. Lett.*, 88, 092106-1 - 1 (2006).
 501. T. KAMIYA, H. HIRAMATSU, K. NOMURA, and H. HOSONO: Device Applications of Transparent Oxide Semiconductors: Excitonic Blue LED and Transparent Flexible TFT; *J. Electroceram.* 17, 267-275 (2006).
- 2007
502. K. Ueda, K. Takafuji, H. Yanagi, Toshio Kamiya, H. Hosono, H. Hiramatsu, M. Hirano and N. Hamada: Optoelectronic properties and electronic structure of YCuOSe ; *J. Appl. Phys.*, 102, 113714-1 - 113714-6, (2007).
 503. K. Kayanuma, H. Hiramatsu, M. Hirano, R. Kawamura, H. Yanagi, T. Kamiya, and H. Hosono: Apparent bipolarity and Seebeck sign inversion in a layered semiconductor: LaZnOP ; *Phys. Rev. B*, 76, 195325, (2007).
 504. ★Y. Toda, H. Yanagi, E. Ikenaga, J.J. Kim, M. Kobata, S.Ueda, T. Kamiya, M. Hirano, K. Kobayashi, and H. Hosono: Work Function of a Room-Temperature, Stable Electride $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(\text{e}^-)_4$; *Adv. Mater.*, 19, 3564-3569, (2007).
 505. R. Hayashi, M. Ofuji, N. Kaji, K. Takahashi, K. Abe, H. Yabuta, M. Sano, H. Kumomi, K. Nomura, T. Kamiya, M. Hirano, H. Hosono: Circuits using uniform TFTs based on amorphous In-Ga-Zn-O ; *Journal of the SID*, 15/11, 915-921, (2007).
 506. Y. ISHIDA, H. OHTA, A. FUJIMORI, and H. HOSONO: Temperature Dependence of the Chemical Potential in Na_xCoO_2 : Implications for the Large Thermoelectric Power; *Journal of the Physical Society of Japan*, 76[10], October, 103709(2007)
 507. K. Kajihara, S. Matsuishi, K. Hayashi, M. Hirano, and H. Hosono: Vibrational Dynamics and Oxygen Diffusion in a Nanoporous Oxide Ion Conductor $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Studied by ^{18}O Labeling and incoherent Raman Spectroscopy; *J. Phys. Chem. C* 2007, 111,

- 14855-14861(2007)
508. M. Yasukawa, K. Ikeuchi, T. Kono, H. Yanagi, and H. Hosono, Preparation of Semiconductive La-Doped BaSnO₃ by a Polymerized Complex Method and the Thermoelectric Properties, *Journal of the Japan Society of Powder and Powder Metallurgy*, 54,636-644(2007)
 509. H. Buchhammagari, Y. Toda, M. Hirano, H. Hosono, D. Takeuchi, and K. Osakada: Room Temperature-Stable Electride as a Synthetic Organic Reagent: Application to Pinacol Coupling Reaction in Aqueous Media, *Organic Letters* 9,4287-4289(2007)
 510. T. Watanabe, H. Yanagi, T. Kamiya, Y. Kamihara, H. Hiramatsu, M. Hirano, and H. Hosono: Nickel-Based Oxyphosphide Superconductor with a Layered Crystal Structure, LaNiOP, *Inorg. Chem.*, 46, 7719-7721, (2007).
 511. L.Skuja, K. Kajihara, M. Hirano, H. Hosono: Ultraviolet absorption of hydrogen related species in glassy silica; *Physics and Chemistry of Glasses*, 48, 103-106, (2007).
 512. M Miyakawa, N. Ueda, T. Kamiya, M. Hirano, and H. Hosono; "Novel room temperature stable electride 12SrO/7Al₂O₃ thin films: fabrication, optical and electron transport properties" *Journal of the Ceramic Society of Japan* 115, 568 (2007).
 513. H. Tawarayama, S. Sugata, H. Inoue, H. Hosono, and H. Kawazoe, Detection of Infrared Silent Proton in Hydrogen-Reduced Tungsten Phosphate Glasses by Thermal Desorption, *Chem. Mater.* 19, 4385-4386(2007).
 514. K. Kajihara, M. Hirano, Y. Takimoto, L. Skuja, and H. Hosono: Diffusion of nitrogen molecules in amorphous SiO₂; *Applied Physics Letters*, 91, 071904-6, (2007).
 515. H. Hiramatsu, K. Ueda, H. Ohta, M. Hirano, M. Kikuchi, H. Yanagi, T. Kamiya, and H. Hosono: Heavy hole doping of epitaxial thin films of a widegap p-type semiconductor, LaCuOSe, and analysis of the effective mass; *Appl. Phys. Lett.*, 91, 012104, (2007).
 516. S.W. Kim A S. Matsuishi, M. Miyakawa, K. Hayashi, M. Hirano, H. Hosono: Fabrication of room temperature-stable 12CaO·7Al₂O₃ electride: A review; *J Mater Sci: Mater Electron*, 18, S5-14, (2007).
 517. T. Nomura, K. Hayashi, Y. Kubota, T. Kamiya, M. Hirano, M. Takata, and H. Hosono: Anion Incorporation-induced Cage Deformation in 12CaO·7Al₂O₃ Crystal; *Chemistry Letters*, 36, 902-903 (2007).
 518. T. Iwasaki, N. Itagaki, T. Den, H. Kumomi, K. Nomura, T. Kamiya, and H. Hosono: Combinatorial approach to thin-film transistors using multicomponent semiconductor channels: An application to amorphous oxide semiconductors in In-Ga-Zn-O system; *Appl. Phys. Lett.*, 90, 242114, (2007).
 519. ★M. Miyakawa, S.W. Kim, M. Hirano, Y. Kohama, H. Kawaji, T. Atake, H. Ikegami, K. Kono, H. Hosono: Superconductivity in an Inorganic Electride 12CaO·7Al₂O₃·e⁻; *J. Am. Chem. Soc.: (Communication)*, 129, 7270-7271, (2007).
 520. K.B. Kim, M. Kikuchi, M. Miyakawa, H. Yanagi, T. Kamiya, M. Hirano, and H. Hosono: Photoelectron Spectroscopic Study of C12A7·e⁻ and Alq₃ Interface: The Formation of a Low Electron-Injection Barrier; *J. Phys. Chem. C*, 111, 8403-8406, (2007).
 521. Y. Ogo, H. Yanagi, T. Kamiya, K. Nomura, M. Hirano, H. Hosono: Epitaxial film growth, optical, electrical, and magnetic properties of layered oxide In₃FeTi₂O₁₀; *JOURNAL OF APPLIED PHYSICS*, 101, 103714, (2007).
 522. ★S.W. Kim, S. Matsuishi, T. Nomura, Y. Kubota, M. Takata, K. Hayashi, T. Kamiya, M. Hirano, and H. Hosono: Metallic State in a Lime-Alumina Compound with Nanoporous Structure; *Nano Letters*, 7, 1138-1143, (2007).
 523. H. Hosono: Recent progress in transparent oxide semiconductors: Materials and device application; *Thin Solid Films*, 615, 6000-6014, (2007).
 524. M. Miyakawa, M. Hirano, T. Kamiya, and H. Hosono: High electron doping to a wide

- band gap semiconductor $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ thin film; *Applied Physics Letters*, 90, 182105, (2007).
525. H. Hosono, K. Hayashi, M. Hirano: Active anion manipulation for emergence of active functions in the nanoporous crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$: a case study of abundant element strategy; *J. Mater. Sci.*, 42, 1872-1883, (2007).
 526. M. Ofuji, K. Abe, H. Shimizu, N. Kaji, R. Hayashi, M. Sano, H. Kumomi, K. Nomura, T. Kamiya, and H. Hosono: Fast Thin-Film Transistor Circuits Based on Amorphous Oxide Semiconductor; *IEEE ELECTRON DEVICE LETTERS*, 28, 273-275, (2007).
 527. E. Fortunato, D. Ginley, H. Hosono, and D. Paine: Transparent Conducting Oxides for Photovoltaics; *MRS Bull*, 32, 242-247, (2007).
 528. L. Skuja, K. Kajihara, M. Hirano, and H. Hosono: Fluorine laser-induced silicon hydride SiH groups in silica; *J. Non-Cryst. Solids*, 353, 526-529, (2007).
 529. K. Kajihara, M. Hirano, L. Skuja, H. Hosono: Reactivity of SiCl and SiF groups in SiO_2 glass with mobile interstitial O_2 and H_2O molecules; *J. Non-Cryst. Solids*, 353, 514-517, (2007).
 530. K. HAYASHI, P. V. SUSHKO, D. M. RAMO, A. L. SHLUGER, S. WATAUCHI, I. TANAKA, S. MATSUISHI, M. HIRANO, and H. HOSONO: Nanoporous Crystal $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$: A Playground for Studies of Ultraviolet Optical Absorption of Negative Ions; *J. Phys. Chem. B*, 111, 1946-1956, (2007).
 531. P. V. Sushko, A. L. Shluger, M. Hirano, and H. Hosono: From Insulator to Electride: A Theoretical Model of Nanoporous Oxide $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *J. Am. Chem. Soc.*, 129, 942-951, (2007).
 532. H. Ohta, S. Kim, Y. Mune, T. Mizoguchi, K. Nomura, S. Ohta, T. Nomura, Y. Nakanishi, Y. Ikumura, M. Hirano, H. Hosono, and K. Koumoto: Giant thermoelectric Seebeck coefficient of a two-dimensional electron gas in SrTiO_3 ; *Nature Mater.*, 6, 129, (2007).
 533. K. Kajihara, M. Hirano, L. Skuja, and H. Hosono: Formation of Intrinsic Point Defects in Fluorine-doped Synthetic SiO_2 Glass by ^{60}Co gamma-ray Irradiation; *Chem. Lett.*, 36, 266-267, (2007).
 534. K. Nomura, T. Kamiya, H. Ohta, T. Uruga, M. Hirano, and H. Hosono: Local coordination structure and electronic structure of the large electron mobility amorphous oxide semiconductor In-Ga-Zn-O: Experiment and ab initio calculations; *Phys. Rev. B*, 75, 035212, (2007).
 535. A. Saitoh, Shuhei Murata, S. Matsuishi, M. Oto, T. Miura, M. Hirano, H. Hosono: Phosphorus co-doping effect on photoluminescence in Ce^{3+} -doped SiO_2 glasses: The formation of unique ligand field by P-co-doping; *J. Luminescence*, 122-123, 355-358, (2007).
 536. K. Kawamura, T. Otsuka, M. Hirano, T. Kamiya, and H. Hosono: Development of latent images due to transient free carrier electrons by femtosecond laser pulses and its application to grating shape trimming; *Appl. Phys. Lett.*, 90, 011107, (2007).
 537. H. Kamioka, T. Yamaguchi, M. Hirano, T. Kamiya, H. Hosono: Structural and photo-induced properties of Eu^{2+} -doped $\text{Ca}_2\text{ZnSi}_2\text{O}_7$: A red phosphor for white light generation by blue ray excitation; *J. Luminescence*, 122-123, 339-341, (2007).

• 2008

538. C. J. Zhang, H. Oyanagi, Z. H. Sun, Y. Kamihara, and H. Hosono: Low-temperature lattice structure anomaly in the $\text{LaFeAsO}_{0.93}\text{F}_{0.07}$ superconductor by x-ray absorption spectroscopy: Evidence for a strong electron-phonon interaction; *Phys. Rev. B*, 78, 214513, (2008).
539. K. Matsuzaki, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, and H. Hosono:

- Epitaxial growth of high mobility Cu₂O thin films and application to p-channel thin film transistor; *Appl. Phys. Lett.*, 93, 202107-1-3, (2008).
540. H. Hiramatsu, I. Koizumi, K.B. Kim, H. Yanagi, T. Kamiya, M. Hirano, N. Matsunami, and H. Hosono: Characterization of copper selenide thin film hole-injection layers deposited at room temperature for use with p-type organic semiconductors; *J. Appl. Phys.*, 104, 113723, (2008).
 541. H. OKADA, Y. TAKAHASHI, K. IGAWA, K. ARII, H. TAKAHASHI, T. WATANABE, H. YANAGI, Y. KAMIHARA, T. KAMIYA, M. HIRANO, H. HOSONO, S. NAKANO, T. KIKEGAWA: Pressure effects on superconducting and structural properties for nickel-based superconductors LaNiXO (X = P and As); *J. Phys. Soc. Jpn. Suppl. C*, 77, 119-120, (2008).
 542. P.V.Sushko, A.L. Shluger, M. Hirano, and H. Hosono: Mechanism of phase transitions and electronic density of states in LaFeAsO_{1-x}F_x and SmFeAsO_{1-x}F_x from ab initio density functional calculations; *PHYSICAL REVIEW B*, 78, 172508, (2008)
 543. K. Ichimura, J. Ishioka, T. Kurosawa, K. Inagaki, M. Oda, S. Tanda, H. Takahashi, H. Okada, Y. Kamihara, M. Hirano, and H. Hosono: Superconducting Gap and Pseudogap Structure in LaFeAsO_{1-x}F_x Probed by STM/STS; *J. Phys. Soc. Jpn. Suppl. C*, 77, 151-152, (2008).
 544. Y. Shinoda, S.W. Kim, F. Wakai, and H. Hosono: Plasticity of Fe-Oxypnictides Superconductor; *J. Phys. Soc. Jpn. Suppl. C*, 77, 125-126, (2008).
 545. S. Kitao, Y. Kobayashi, S. Higashitaniguchi, M. Kurokuzu, M. Saito, Y. Kamihara, M. Hirano, T. Mitsui, H. Hosono, and M. Seto: Spin Ordering in LaFeAsO and Its Suppression in F-Doped Superconductors LaFeAsO_{1-x}F_x Probed by Mössbauer Spectroscopy; *J. Phys. Soc. Jpn. Suppl. C*, 77, 121-122, (2008).
 546. W. Malaeb, T. Yoshida, T. Kataoka, A. Fujimori, M. Kubota, K. Ono, H. Usui, K. Kuroki, R.taro Arita, H. Aoki, Y. Kamihara, M. Hirano, and H. Hosono: Photoemission Study of the Electronic Structure of LaFeAsO_{1-x}F_x and LaFePO_{1-x}F_x; *J. Phys. Soc. Jpn. Suppl. C*, 77, 69-71, (2008).
 547. T. Sato, K. Nakayama, Y. Sekiba, T. Arakane, K. Terashima, S. Souma, T. Takahashi, Y. Kamihara, M. Hirano, and H. Hosono: Doping Dependence of Pseudogap in LaFeAsO_{1-x}F_x; *J. Phys. Soc. Jpn. Suppl. C*, 77, 65-68, (2008).
 548. Y. Ishida, T. Shimojima, K. Ishizaka, T. Kiss, M. Okawa, T. Togashi, S. Watanabe, X. Wang, C.Chen, Y. Kamihara, M. Hirano, H. Hosono, and S. Shin: Unusual Pseudogap Features Observed in Iron Oxypnictide Superconductors; *J. Phys. Soc. Jpn. Suppl. C*, 77, 61-64, (2008).
 549. T. Nomura, S.W. Kim, Y. Kamihara, M. Hirano, P.V. Sushko, K. Kato, M. Takata, A.L.Shluger, and H. Hosono: Tetragonal– Orthorhombic Phase Transition and F-Doping Effects on the Crystal Structure in the Iron-Based High-T_c Superconductor LaFeAsO; *J. Phys. Soc. Jpn. Suppl. C*, 77, 32-35, (2008).
 550. S.W. Kim, Y. Kamihara, S.G.Yoon, H.S. Han, T. Nomura S. Matsuishi, K. Nakao, K. Tanabe, M. Hirano, and H. Hosono, Preparation of Fe-Oxipnictides Superconductors: Solid-State Sintering, High Pressure Synthesis and Flux Method, *J. Phys. Soc. Jpn. Suppl. C*, 77, 23-26, (2008).
 551. H. Hosono: Layered Iron Pnictide Superconductors: Discovery and Current Status; *J. Phys. Soc. Jpn. Suppl. C*, 77, 1-8, (2008).
 552. H. TAKAHASHI, H. OKADA, K. IGAWA, K. ARII, Y. KAMIHARA, S. MATSUISHI, M. HIRANO, H. HOSONO, K. MATSUBAYASHI and Y. UWATOKO: High-pressure Studies on Superconducting iron-based LaFeAsO_{1-x}F_x, LaFePO and SrFe₂As₂; *J. Phys. Soc. Jpn. Suppl. C*, 77, 78-83, (2008).
 553. P.V.Sushko, H. Hiramatsu, M. Hirano, and H. Hosono: Properties of LaFeAsO/MgO(001) interfaces from ab initio calculations; *J. Phys. Soc. Jpn.*, 77 (Suppl.

- C), 113-116, (2008).
554. T.Nomura, S-WKim, Y. Kamihara, M. Hirano, P. V. Sushko, K.Kato, M. Takata, A L Shluger, and H Hosono: Crystallographic phase transition and high-T_c superconductivity in LaFeAsO:F; *Supercond. Sci. Technol.*, 21, 125028, (2008).
 555. S. Higashitaniguchi, M. Seto, S. Kitao, Y. Kobayashi, M. Saito, R. Masuda, T. Mitsui, Y. Yoda, Y. Kamihara, M. Hirano, and H. Hosono: Iron-specific phonon density of states in the superconductors LaFeAsO_{1-x}F_x and La_{1-x}CaxFePO; *Phys. Rev. B*, 78, 174507, (2008).
 556. Y. Kamihara, H. Hiramatsu, M. Hirano, Y. Kobayashi, S. Kitao, S. Higashitaniguchi, Y. Yoda, M. Seto, and H. Hosono: Coexistence of superconductivity and antiferromagnetic ordering in the layered superconductor SmFePO; *Phys. Rev. B*, 78, 184512, (2008).
 557. Y. Kohama, Y. Kamihara, S. Riggs, F. F. Balakirev, T. Atake, M. Jaime, M. Hirano and H. Hosono: Hall coefficient and H_{c2} in underdoped LaFeAsO_{0.95}F_{0.05}; *Euro. Phys. Lett.*, 84, 37005, (2008).
 558. S. MATSUISHI, Y. INOUE, T. NOMURA, M. HIRANO, and H. HOSONO: Cobalt-Substitution-Induced Superconductivity in a New Compound with ZrCuSiAs-Type Structure, SrFeAsF; *J. Phys. Soc. Jpn.*, 77, 113709, (2008).
 559. H. OKADA, K. IGAWA, H. TAKAHASHI, Y. KAMIHARA, M. HIRANO, H. HOSONO, K. MATSUBAYASHI, and Y. UWATOKO: Superconductivity under High Pressure in LaFeAsO; *J. Phys. Soc. Jpn.*, 77, 113712, (2008).
 560. K. Nomura, T. Kamiya, H. Ohta, M. Hirano and H. Hosono: Defect passivation and homogenization of amorphous oxide thin-film transistor by wet O₂ annealing; *Appl. Phys. Lett.*, 93, 192107, (2008).
 561. T. Kamiya and M. Kawasaki: ZnO-Based Semiconductors as Building Blocks for Active Devices; *MRS Bulletin*, 33, 1061-1066, (2008).
 562. S. Matsuishi, Y. Inoue, T. Nomura, H. Yanagi, M. Hirano, and H. Hosono: Superconductivity Induced by Co-Doping in Quaternary Fluoroarsenide CaFeAsF; *J. Am. Chem. Soc.*, 130, 14428-14429, (2008).
 563. Y. Kamihara, H. Hiramatsu, M. Hirano, H. Yanagi, T. Kamiya, and H. Hosono: Electronic and magnetic properties of layered LnFePO (Ln=La and Ce); *Journal of Physics and Chemistry of Solids*, 69, 2916-2918, (2008).
 564. H. Hiramatsu, T. Katase, T. Kamiya, M. Hirano, and H. Hosono: Heteroepitaxial growth and optoelectronic properties of layered iron oxyarsenide, LaFeAsO; *Appl. Phys. Lett.*, 93, 162504, (2008).
 565. K. Hayashi, N. Ueda, S. Matsuishi, M. Hirano, T. Kamiya, and H. Hosono: Solid State Syntheses of 12SrO·7Al₂O₃ and Formation of High Density Oxygen Radical Anions, O⁻ and O₂⁻; *Chemistry of Materials*, 20, 5987-5996, (2008).
 566. S. KITAO, Y. KOBAYASHI, S. HIGASHITANIGUCHI, M. SAITO, Y. KAMIHARA, M. HIRANO, T. MITSUI, H. HOSONO, and M. SETO: Spin Ordering in LaFeAsO and Its Suppression in Superconductor LaFeAsO_{0.89}F_{0.11} Probed by Mossbauer Spectroscopy; *J. Phys. Soc. Jpn.*, 77, 103706, (2008).
 567. S. TAKESHITA, R. KADONO, M. HIRAISHI, M. MIYAZAKI, A. KODA, Y. KAMIHARA, and H. HOSONO, Coexistence of Superconductivity and Magnetism in LaFeAs(O_{0.94}F_{0.06}) Probed by Muon Spin Relaxation, *Journal of the Physical Society of Japan* Vol. 77, No. 10, 103703-1-4 (2008)
 568. K. Kajihara, M. Hirano, L. Skuja and H. Hosono: Intrinsic defect formation in amorphous SiO₂ by electronic excitation: Bond dissociation versus Frenkel mechanisms; *Phys. Rev. B*, 78, 094201, (2008)
 569. H. Hiramatsu, T. Katase, T. Kamiya, M. Hirano, and H. Hosono: Superconductivity in Epitaxial Thin Films of Co-Doped SrFe₂As₂ with Bilayered FeAs Structures and their Magnetic Anisotropy; *Appl. Phys. Express*, 1, 101702, (2008).

570. Y. Kohama, Y. Kamihara, H. Kawaji, T. Atake, M. HIRANO, and H. HOSONO: Possible Unconventional Superconductivity in Layered Compound LaFePO: Study of Heat Capacity; *J. Phys. Soc. Jpn.*, 77, 094715, (2008).
571. W. Malaeb, T. Yoshida, T. Kataoak, A. Fujimori, M. Kubota, K. Ono, H. Usui, K. Kuroki, R. Arita, H. Aoki, Y. Kamihara, M. Hirano, and H. Hosono: Electronic Structure and Electron Correlation in LaFeAsO_{1-x}F_x and LaFePO_{1-x}F_x; *J. Phys. Soc. Jpn.*, 77, 093714, (2008).
572. Y. Nakai, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: Spin Dynamics in Iron-Based Layered Superconductor (La_{0.87}Ca_{0.13})FePO Revealed by ³¹P and ¹³⁹La NMR Studies; *Phys. Rev. Lett.*, 101, 077006, (2008).
573. S.W. Kim, M. Miyakawa, M. Hirano, Y. Kohama, H. Kawaji, T. Atake, H. Ikegami, K. Kono, and H. Hosono: Superconducting Transition in Electron-doped 12CaO·7Al₂O₃; *Mater. Trans.*, 49, 1748-1752, (2008).
574. H. Yanagi, M. Kikuchi, K.B. Kim, H. Hiramatsu, T. Kamiya, M. Hirano, H. Hosono: Low and small resistance hole-injection barrier for NPB realized by wide-gap p-type degenerate semiconductor, LaCuOSe:Mg; *Organic Electronics*, 9, 890-894, (2008).
575. T. Watanabe, H. Yanagi, Y. Kamihara, T. Kamiya, M. Hirano, H. Hosono: Nickel-based layered superconductor, LaNiOAs; *J. Sol. State Chem.*, 181, 2117– 2120, (2008).
576. Y. Nishio, K. Nomura, M. Miyakawa, K. Hayashi, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Fabrication and transport properties of 12CaO·7Al₂O₃ (C12A7) electride nanowire; *phys. stat. solidi (a)*, 205, 2047-2051, (2008).
577. Y. Ogo, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Amorphous Sn-Ga-Zn-O channel thin-film transistors; *phys. stat. solidi (a)*, 205, 1920-1924, (2008).
578. K. Nomura, T. Kamiya, H. Ohta, K. Shimizu, M. Hirano, H. Hosono: Relationship between non-localized tail states and carrier transport in amorphous oxide semiconductor, In-Ga-Zn-O; *phys. stat. solidi (a)*, 205, 1910-1914, (2008).
579. N. Itagaki, T. Iwasaki, H. Kumomi, T. Den, K. Nomura, T. Kamiya, H. Hosono: Zn-In-O based thin-film transistors: Compositional dependence; *phys. stat. solidi (a)*, 205, 1915-1919, (2008).
580. Y. Kohama, Y. Kamihara, M. Hirano, H. Kawaji, T. Atake, and H. Hosono: Ferromagnetic spin fluctuation in LaFeAsO_{1-x}F_x; *Phys. Rev. B*, 78, 020512 (R) (2008)
581. Y. Ogo, H. Hiramatsu, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, and H. Hosono: p-channel thin-film transistor using p-type oxide semiconductor, SnO; *Appl. Phys. Lett.*, 93, 032113, (2008).
582. T. Kamiya, K. Tajima, K. Nomura, H. Yanagi, and H. Hosono: Interface electronic structures of zinc oxide and metals: First-principle study; *physica status solidi (a)*, 205, 1929-1933, (2008).
583. H. Hiramatsu, H. Yanagi, T. Kamiya, M. Hirano, N. Matsunami, K. Shimizu, and H. Hosono: Electrical and optical properties of copper-based chalcogenide thin films deposited by pulsed laser deposition at room temperature: Toward p-channel thin film transistor fabricable at room temperature; *physica status solidi (a)*, 205, 2007-2012, (2008)
584. T. Sato, S. Souma, K. Nakayama, K. Terashima, K. Sugawara, T. Takahashi, Y. Kamihara, M. Hirano, and H. Hosono, Superconducting Gap and Pseudogap in Iron-Based Layered Superconductor La(O_{1-x}F_x)FeAs, *J. Phys. Soc. Jpn.* 77.063708 (2008)
585. Y. Nakai, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono, Evolution from Itinerant Antiferromagnet to Unconventional Superconductor with Fluorine Doping in LaFeAs(O_{1-x}F_x) Revealed by ⁷⁵As and ¹³⁹La Nuclear Magnetic Resonance. *J. Phys. Soc. Jpn.*, 77.073701 (2008)

586. H. Yanagi, R. Kawamura, T. Kamiya, Y. Kamihara, M. Hirano, T. Nakamura, H. Osawa, and H. Hosono: Itinerant ferromagnetism in the layered crystals LaCoOX (X = P,As); *Physical Review B*, 77, by 224431, (2008).
587. Y. Kamihara, M. Hirano, H. Yanagi, T. Kamiya, Y. Saitoh, E. Ikenaga, K. Kobayashi, and H. Hosono: Electromagnetic properties and electronic structure of the iron-based layered superconductor LaFePO; *Phys. Rev. B*, 77, 214515, (2008).
588. T. Mine, H. Yanagi, T. Kamiya, Y. Kamihara, M. Hirano, and H. Hosono: Nickel-based phosphide superconductor with infinite-layer structure, BaNi₂P₂; *Solid State Communications*, 147, 111-113, (2008).
589. K. Nomura, T. Kamiya, H. Yanagi, E. Ikenaga, Ke Yang, K. Kobayashi, M. Hirano, and H. Hosono: Subgap states in transparent amorphous oxide semiconductor, In–Ga–Zn–O, observed by bulk sensitive x-ray photoelectron spectroscopy; *Appl. Phys. Lett.* 92, 202117, (2008).
590. Y. Shimura, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Specific contact resistances between amorphous oxide semiconductor In–Ga–Zn–O and metallic electrodes; *Thin Solid Films*, 516, 5899-5902, (2008).
591. T. Katase, K. Nomura, H. Ohta, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Fabrication of ScAlMgO₄ epitaxial thin films using ScGaO₃(ZnO)_m buffer layers and its application to lattice-matched buffer layer for ZnO epitaxial growth; *Thin Solid Films*, 516, 5842-5846, (2008).
592. K. Kurashige, Shunsuke Ueda, M. Miyakawa, Y. Toda, S. Matsuishi, S.W. Kim, M. Hirano, H. Hosono: Growth of 12CaO·7Al₂O₃ single crystal with tetragonal symmetry by Czochralski method; *Thin Solid Films*, 516, 5772-5776, (2008).
593. T. Mine, H. Yanagi, K. Nomura, T. Kamiya, M. Hirano, H. Hosono: Control of carrier concentration and surface flattening of CuGaO₂ epitaxial films for a p-channel transparent transistor; *Thin Solid Films*, 516, 5790-5794, (2008).
594. K. Kayanuma, R. Kawamura, H. Hiramatsu, H. Yanagi, M. Hirano, T. Kamiya, H. Hosono: Heteroepitaxial growth of layered semiconductors, LaZnOP_n (P_n=P and As); *Thin Solid Films*, 516, 5800-5804, (2008).
595. S. Matsuishi, S.W. Kim, T. Kamiya, M. Hirano, and H. Hosono: Localized and Delocalized Electrons in Room-Temperature Stable Electride [Ca₂₄Al₂₈O₆₄]⁴⁺(O₂)_{2-x}(e⁻)_{2x}: Analysis of Optical Reflectance Spectra; *J. Phys. Chem.*, C112, 4753-4760, (2008)
596. K.J.Saji, M. K. Jayaraj, K. Nomura, T. Kamiya and H. Hosono: Optical and Carrier Transport Properties of Cosputtered Zn–In–Sn–O Films and Their Applications to TFTs; *J. Electrochem. Soc.*, 155, H390-H395, (2008).
597. S. Ishibashi, K. Terakura and H. Hosono, A Possible Ground State and Its Electronic Structure of a Mother Material (LaOFeAs) of New Superconductors; *Journal of the Physical Society of Japan*, 77, 053709-1-4(2008).
598. ★H. Takahashi, K. Igawa, K. Arii, Y. Kamihara, M. Hirano, H. Hosono: Superconductivity at 43 K in an iron-based layered compound LaO_{1-x}F_xFeAs; *Nature*, 453, 376-379, (2008)
599. H. Hosono, Sung Wang Kim, M. Miyakawa, S. Matsuishi, T. Kamiya: Thin film and bulk fabrication of room-temperature-stable electride C12A7:e⁻ utilizing reduced amorphous 12CaO·7Al₂O₃ (C12A7); *J. Non-Cryst. Sol.*, 354, 2772-2776, (2008).
600. H. Hosono, K. Nomura, Y. Ogo, T. Uruga and T. Kamiya: Factors controlling electron transport properties in transparent amorphous oxide semiconductors; *J. Non-Cryst. Sol.*, 354, 2796-2800, (2008).
601. M. K. Jayaraj, K.J. Saji, K. Nomura, T. Kamiya, and H. Hosono: Optical and electrical properties of amorphous zinc tin oxide thin films examined for thin film transistor application; *J. Vac. Sci. Technol. B*, 26, 495, (2008).

602. M. Kimura, T. Nakanishi, K. Nomura, T. Kamiya, and H. Hosono: Trap densities in amorphous-InGaZnO₄ thin-film transistors; *Appl. Phys. Lett.*, 92, 133512, (2008).
603. H.H. Hsieh, T. Kamiya, K. Nomura, H. Hosono, and Chung-Chih Wu: Modeling of amorphous InGaZnO₄ thin film transistors and their subgap density of states; *Appl. Phys. Lett.*, 92, 133503, (2008).
604. S. G. Yoon, S.W. Kim, M. Hirano, D. H. Yoon, and H. Hosono: Pore-Free 12CaO·7Al₂O₃ Single-Crystal Growth by Melt State Control using the Floating Zone Method; *Cryst. Growth & Design*, 8, 1271, (2008).
605. Y. Kohama, S.W. Kim, T. Tojo, H. Kawaji, T. Atake, S. Matsuishi, and H. Hosono: Evidence for Bardeen-Cooper-Schrieffer-type superconducting behavior in the electride (CaO)₁₂(Al₂O₃)₇·e⁻ from heat capacity measurements; *Phys. Rev. B*, 77, 092505, (2008).
606. ★Y. Kamihara, T. Watanabe, M. Hirano, and H. Hosono: Iron-Based Layered Superconductor La[O_{1-x}F_x]FeAs (x = 0.05-0.12) with T_c) 26 K; *J. Am. Chem. Soc.*, 130, 3296-3297, (2008).
607. H. Kumomi, K. Nomura, T. Kamiya, and H. Hosono: Amorphous oxide channel TFTs; *Thin Solid Films*, 516, 1516, (2008).
608. P.V. Sushko, A.L. Shluger, M. Hirano, and H. Hosono: Insulator-conductor transition in 12CaO·7Al₂O₃ films: On the stability of the crystal lattice under Ar⁺ bombardment; *Thin Solid Films*, 516, 1350, (2008).
609. K. UEDA, T. MAEDA, K. MAKAYASHIKI, K. GOTO, Y. NAKACHI, H. TAKASHIMA, K. NOMURA, K. KAJIARA, and H. HOSONO: Photoluminescence from Epitaxial Films of Perovskite-type Alkaline-earth Stannates; *Applied Physics Express*, 1, 015003(2008)
610. H. Hiramatsu, H. Yanagi, T. Kamiya, K. Ueda, M. Hirano, and H. Hosono: Crystal Structures, Optoelectronic Properties, and Electronic Structures of Layered Oxychalcogenides MCuOCh (M = Bi, La; Ch = S, Se, Te): Effects of Electronic Configurations of M³⁺ Ions; *Chem. Mater.*, 20, 326, (2008).
611. T. Kamiya, K. Nomura, M. Hirano, and H. Hosono: Electronic structure of oxygen deficient amorphous oxide semiconductor a-InGaZnO_{4-x}: Optical analysis and first-principle calculations; *physica status solidi (c)*, 5, 3098-3100, (2008).
612. K. Kajihara, T. Miura, H. Kamioka, A. Aiba, M. Uramoto, Y. Hiro Morimoto, M. Hirano, L. Skuja, H. Hosono: Diffusion and reactions of interstitial oxygen species in amorphous SiO₂: A review; *Journal of Non-Crystalline Solids*, 354, 224-232, (2008).

• 2009

613. R. Mittal, S. Rols, M. Zbiri, Y. Su, H. Schober, S. L. Chaplot, M. Johnson, M. Tegel, T. Chatterji, S. Matsuishi, H. Hosono, D. Johrendt, and Th. Brueckel: Phonon spectra in CaFe₂As₂ and Ca_{0.6}Na_{0.4}Fe₂As₂: Measurement of the pressure and temperature dependence and comparison with ab initio and shell model calculations; *Phys. Rev. B*, 79, 144516, (2009).
614. R. Mittal, M. Zbiri, S. Rols, Y. Su, Y. Xiao, H. Schober, S. L. Chaplot, M. Johnson, T. Chatterji, S. Matsuishi, H. Hosono, and Th. Brueckel: Effects of magnetic doping and temperature dependence of phonon dynamics in CaFe_{1-x}Co_xAsF compounds (x=0, 0.06, and 0.12); *Phys. Rev. B*, 79, 214514, (2009).
615. T. Kamiya, K. Nomura, and H. Hosono: Electronic Structures Above Mobility Edges in Crystalline and Amorphous In-Ga-Zn-O: Percolation Conduction Examined by Analytical Model; *J. Display Technol.*, 5, (2009).
616. K. Ishida, Y. Nakai, S. Kitagawa, Y. Kamihara, M. Hirano, H. Hosono: ⁷⁵As and ¹³⁹La NMR studies on LaFeAs(O_{1-x}F_x); *Physica B: Condensed Matter*, 404, 3089-3094 (2009)

618. H. Hosono: Two Families of New Superconductors Discovered in our Materials Research on Transparent Oxide Semiconductors; *Max Plank Institute at Dresden* (Dec 2, 2009), (2009).
619. K. Matsuda, Y. Konaka, Y. Maniwa, S. Matsuishi, and H. Hosono: Electronic state and cage distortion in the room-temperature stable electride $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(\text{O}^{2-})_{2-x}(\text{e}^-)_{2x}$ as probed by ^{27}Al NMR; *PHYSICAL REVIEW B*, 80, 245103, (2009).
620. T. KAWAKAMI, T. KAMATANI, H. OKADA, H. TAKAHASHI, S. NASU, Y. KAMIHARA, M. HIRANO, and H. HOSONO: High-Pressure ^{57}Fe Mössbauer Spectroscopy of LaFeAsO ; *J. Phys. Soc. Jpn.* 78, 123703-06 (2009)
621. A. Sato, M. Shimada, K. Abe, R. Hayashi, H. Kumomi, K. Nomura, T. Kamiya, M. Hirano, H. Hosono, Amorphous InGaZnO thin-film transistor with coplanar homojunction structure; *Thin Solid Films* 518, 1309-1313 (2009)
622. M. Yasukawa, T. Kono, H. Yanagi, and H. Hosono: High-Temperature Thermoelectric properties of La-doped $\text{Ba}_{1-x}\text{Sr}_x\text{SnO}_3$ Ceramics; *J. Jpn. Soc. Power Power Metallurgy*, 56, 555-560, (2009)
623. K. Nose, N. Fujita, T. Omata, S. Matsuo, W. Kato, M. Uehara, H. Nakamura, H. Maeda, H. Kamioka, and H. Hosono: Photoluminescence of CuInS_2 -based Semiconductor quantum dots: Its origin and the effect of ZnS coating; *J. Phys. Conf.*, 165, 012028-012031, (2009).
624. H. Oyanagi, C. J. Zhang, Z. H. Sun, Y. Kamihara, and H. Hosono: Local lattice response in $\text{LaFeAsO}_{0.93}\text{F}_{0.07}$ probed by x-ray absorption spectroscopy: Evidence for carrier-induced lattice distortion; *J. Phys. Conf.*, 190, 012094-012097, (2009).
625. Y. Nakai, S. Kitagawa, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: ^{75}As and ^{139}La NMR/NQR investigations of iron-based superconductor $\text{LaFeAs}(\text{O}_{0.89}\text{F}_{0.11})$; *J. Phys. Conf.*, 150, 052179-052182, (2009).
626. K. Igawa, K. Arii, Y. Takahashi, H. Okada, H. Takahashi, Y. Kamihara, M. Hirano, H. Hiramatsu, T. Watanabe, H. Yanagi, T. Kamiya, H. Hosono, K. Matsubayashi, Y. Uwatoko: Pressure effects on T_c of Iron-based Layered Superconductor LaTMPO ($\text{TM} = \text{Fe}, \text{Ni}$); *J. Phys. Conf.*, 150, 052075-052078, (2009)
627. H. Takahashi, K. Igawa, Y. Takahashi, K. Arii, H. Okada, Y. Kamihara, M. Hirano, H. Hosono, K. Matsubayashi, Y. Uwatoko, S. Nakano, T. Kikegawa: Pressure enhancement of superconductivity in an iron-based layered compound $\text{LaFeAsO}_{1-x}\text{F}_x$; *J. Phys. Conf.*, 150, 052257-052260, (2009).
628. H. Sugawara, K. Ishida, Y. Nakai, H. Yanagi, T. Kamiya, Y. Kamihara, M. Hirano, and H. Hosono: Two-Dimensional Spin Dynamics in the Itinerant Ferromagnet LaCoPO Revealed by Magnetization and ^{31}P -NMR Measurements; *Journal of the Physical Society of Japan*, 78, 113705-113708, (2009).
629. Y. Kamihara, T. Watanabe, T. Nomura, S. W. Kim, T. Kamiya, M. Hirano, and H. Hosono: Electromagnetic properties of undoped LaFePnO ($\text{Pn} = \text{P}, \text{As}$); *J. Phys. Conf.*, 150, 052090, (2009).
630. T. Tohei, T. Mizoguchi, H. Hiramatsu, Y. Kamihara, H. Hosono, and Y. Ikuhara: Direct imaging of doped fluorine in $\text{LaFeAsO}_{1-x}\text{F}_x$ superconductor by atomic scale spectroscopy; *Appl. Phys. Lett.*, 95, 193107-1 - 3, (2009).
631. K. Matsuzaki, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, and H. Hosono: Effects of post-annealing on (110) Cu_2O epitaxial films and origin of low mobility in Cu_2O thin-film transistor; *phys. stat. sol. (a)*, 206, 2192-2197, (2009).
632. Y. Ogo, H. Hiramatsu, K. Nomura, H. Yanagi, T. Kamiya, M. Kimura, M. Hirano, and H. Hosono: Tin monoxide as an s-orbital-based p-type oxide semiconductor: Electronic structures and TFT application; *Phys. Status Solidi A*, 206, 2187-2191, (2009).

633. B. Maiorov, S. A. Baily, Y. Kohama, H. Hiramatsu, L. Civale, M. Hirano, and H. Hosono: Angular and field properties of the critical current and melting line of Co-doped SrFe_2As_2 epitaxial films; *Supercond. Sci. Technol.* **22**, 125011-12 (2009).
634. T. Katase, H. Hiramatsu, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Atomically-flat, chemically-stable, superconducting epitaxial thin film of iron-based superconductor, cobalt-doped BaFe_2As_2 ; *Solid State Commun.*, **149**, 2121-2124, (2009).
635. H. Yanagi, K.B. Kim, I. Koizumi, M. Kikuchi, H. Hiramatsu, M. Miyakawa, Toshi Kamiya, M. Hirano, and H. Hosono: Low Threshold Voltage and Carrier Injection Properties of Inverted Organic Light-Emitting Diodes with $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(4e^-)$ Cathode and Cu_{2-x}Se Anode; *J. Phys. Chem. C* **113**, 18379-18384 (2009)
636. H. Kamioka, M. Hirano, and H. Hosono: Photo-induced charge state conversion of Eu^{2+} in $\text{Ca}_2\text{ZnSi}_2\text{O}_7$; *J. Appl. Phys.*, **106**, 053105-1 - 7, (2009).
637. S.W. Kim, R. Tarumi, H. Ohta, M. Hirano, and H. Hosono: Thermal conductivity and Seebeck coefficient of $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ electride with a cage structure; *Phys. Rev. B*, **80**, 075201 (2009)
638. H. Ohta, Y. Masuoka, R. Asahi, T. Kato, Y. Ikuhara, K. Nomura, and H. Hosono: Field-modulated thermopower in SrTiO_3 -based field-effect transistors with amorphous $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ glassgate insulator; *Applied Physics Letters* **95**, 113505 (2009).
639. T. Suzaki, Sho Kumada, T. Katase, K. Matsuzaki, M. Miyakawa, and H. Hosono: Fabrication of Flat $\text{MgO}(111)$ Films on $\text{Al}_2\text{O}_3(0001)$ Substrates by Pulsed Laser Deposition; *Applied Physics Express*, **2**, 0914031-3, (2009)
640. S. Matsuishi, T. Nomura, M. Hirano, K. Kodama, S. Shamoto, and H. Hosono: Direct Synthesis of Powdery Inorganic Electride $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(e^-)_4$ and Determination of Oxygen Stoichiometry; *Chem. Mater.*, **21**, 2589-2591, (2009).
641. T.C. Fung, C.S. Chuang, K. Nomura, H. D. Shieh, H. Hosono, and Jerzy Kanicki: Photofield-Effect in Amorphous In-Ga-Zn-O (a-IGZO) Thin-Film Transistors; *Journal of Information Display*, **9**, 21-29, (2009).
642. J. Li, K. Hayashi, M. Hirano, H. Hosono: Field-assisted sustainable O^- ion emission from fluorine-substituted $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ with improved thermal stability; *Solid State Ionics*, **180**, 1113-1117, (2009).
643. Y. Ogo, H. Hiramatsu, K. Nomura, H. Yanagi, T. Kamiya, M. Kimura, M. Hirano, and H. Hosono: Tin monoxide as an s-orbital-based p-type semiconductor: Electronic structures and TFT application; *Physics Status Solidi A*, **1-5** (2009)
644. H. Hiramatsu, T. Katase, T. Kamiya, M. Hirano, and H. Hosono: Water-induced superconductivity in SrFe_2As_2 ; *Phys. Rev. B*, **80**, 052501-1 - 4, (2009).
645. H. Takahashi, H. Okada, K. Ikawa, Y. Kamihara, M. Hirano, H. Hosono, K. Matsubayashi, and Y. Uwadoko: High Pressure Studies on Superconductivity in $\text{LaFeAsO}_{1-x}\text{F}_x$ and $\text{SmFeAsO}_{1-x}\text{F}_x$; *J. Supercond. Magn.*, **22**, 595-598, (2009).
646. K. Nomura, T. Kamiya, M. Hirano, and H. Hosono: Origins of threshold voltage shifts in room-temperature deposited and annealed a-In-Ga-Zn-O thin-film transistors; *Appl. Phys. Lett.*, **95**, 013502-1 - 3, (2009).
647. S. Takeshita, R. Kadono, M. Miyazaki, A. Koda, S. Matsuishi, and H. Hosono: Insular Superconductivity in a Co-Doped Iron Pnictide $\text{CaFe}_{1-x}\text{Co}_x\text{AsF}$; *PHYSICAL REVIEW LETTERS*, **103**, 027002 (2009)
648. T. Kamiya, K. Nomura, and H. Hosono: Electronic structure of the amorphous oxide semiconductor a-InGaZnO $_{4-x}$: Tauc-Lorentz optical model and origins of subgap states; *Phys. Status Solidi A*, **206**, 860-867, (2009).
649. K. Ishida, Y. Nakai, and H. Hosono: To What Extent Iron-pnictide New Superconductors Have Been Clarified: A Progress Report; *J. Phys. Soc. Jpn.* **78**[6]062001-1-20 (2009).

650. Y. Nakai, S. Kitagawa, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: Systematic ^{75}As NMR study of the dependence of low-lying excitations on F-doping in the iron oxypnictide $\text{LaFeAsO}_{1-x}\text{F}_x$; *Phys. Rev. B*, 79, 212506-1 - 4, (2009).
651. K. Kajihara, M. Hirano, L. Skuja, and H. Hosono: ^{60}Co gamma-ray-induced intrinsic defect processes in fluorine-doped synthetic SiO_2 glasses of different fluorine concentrations; *Mater. Sci. & Eng. B*, 161, 96-99, (2009).
652. T. Katase, K. Nomura, H. Ohta, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Large domain growth of GaN epitaxial films on lattice-matched buffer layer ScAlMgO_4 ; *Mater. Sci. & Eng. B*, 161, 66-70, (2009).
653. Y. Adachi, S.-W. Kim, T. Kamiya, and H. Hosono: Bistable resistance switching in surface-oxidized C12A7 -single-crystal; *Mater. Sci. & Eng. B*, 161, 76-79 (2009)
654. H. Takahashi, H. Okada, K. Igawa, Y. Kamihara, M. Hirano, and H. Hosono: Pressure studies of $(\text{La}, \text{Sm})\text{FeAs}_{1-x}\text{F}_x$ and LaFePO ; *Physics C*, 469, 413-417 (2009)
655. H. Hiramatsu, T. Kamiya, M. Hirano, and H. Hosono: Heteroepitaxial film growth of layered compounds with the ZrCuSiAs -type and ThCr_2Si_2 -type structures: From Cu-based semiconductors to Fe-based superconductor; *Physica C*, 469, 657-666, (2009).
656. H. Hosono, Two classes of superconductors discovered in our material research: Iron-based high temperature superconductor and electride superconductor; *Physica C*, 469, 314-325 (2009)
657. Y. Nakai, S. Kitagawa, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: An NMR study on the F-doping evolution of the iron oxypnictide $\text{LaFeAs}(\text{O}_{1-x}\text{F}_x)$; *New J. Phys.* 11, 045004 (2009).
658. H. Tawarayama, H. Hosono, S. Yamaura, Wei Zhang, and Akihisa Inoue: Oxide Glass/Amorphous Metal Alloy Laminated Membrane for Hydrogen Separation; *Chemistry Letters*, 38[5]502-503 (2009).
659. H. Omura, H. Kumomi, K. Nomura, T. Kamiya, M. Hirano, and H. Hosono: First-principles study of native point defects in crystalline indium gallium zinc oxide; *J. Appl. Phys.*, 105, 093712-1 - 8, (2009).
660. H. Yanagi, T. Watanabe, K. Kodama, S. Ikubo, S. Shamoto, T. Kamiya, M. Hirano, and H. Hosono: Antiferromagnetic bipolar semiconductor LaMnPO with ZrCuSiAs -type structure; *J. Appl. Phys.*, 105, 093936-1 - 8, (2009).
661. K. Kajihara, T. Miura, H. Kamioka, M. Hirano, L. Skuja, and H. Hosono: Oxygen Exchange at the Internal Surface of Amorphous SiO_2 Studied by Photoluminescence of Isotopically Labeled Oxygen Molecules; *Phys. Rev. Lett.*, 102, 175502-1 - 4, (2009).
662. K. Kajihara, T. Miura, H. Kamioka, M. Hirano, L. Skuja, and H. Hosono: Isotope Effect on the Infrared Photoluminescence Decay of Interstitial Oxygen Molecules in Amorphous SiO_2 ; *Applied Physics Express*, 2, 056502-1 - 3, (2009).
663. H. Tawarayama, H. Kawazoe, and H. Hosono: Hydrogen permeation of tungsten phosphate glass thin films; *Solid State Ionics*, 180, 556-559, (2009).
664. H. Hosono, K. Hayashi, K. Kajihara, P.V. Sushko, and A.L. Shluger: Oxygen ion conduction in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$: O^{2-} conduction mechanism and possibility of O^- fast conduction; *Solid State Ionics*, 180, 550-555, (2009).
665. K. Sugiura, H. Ohta, Y. Ishida, Rong Huang, Tomohiro Saito, Y. Ikuhara, K. Nomura, H. Hosono, and K. Koumoto: Structural Transformation of Ca-Arrangements and Carrier Transport Properties in $\text{Ca}_{0.33}\text{CoO}_2$ Epitaxial Films; *Applied Physics Express*, 2, 035503, (2009).
666. K. Sugiura, H. Ohta, S. Nakagawa, Rong Huang, Y. Ikuhara, K. Nomura, H. Hosono, and K. Koumoto: Anisotropic carrier transport properties in layered cobaltate epitaxial films grown by reactive solid-phase epitaxy; *Appl. Phys. Lett.*, 94, 152105-1 - 3, (2009).
667. T. Nomura, Y. Inoue, S. Matsuishi, M. Hirano, J. E. Kim, K. Kato, M. Takata and H. Hosono: Comparison of crystal structures and the effects of Co substitution in a new

- member of the Fe-1111 superconductor family AeFeAsF ($\text{Ae} = \text{Ca}$ and Sr): a possible candidate for a higher- T_c superconductor, *Supercond. Sci. Technol.* 22, 055016. (2009)
668. K. Kayanuma, H. Hiramatsu, T. Kamiya, M. Hirano, and H. Hosono: Epitaxial film growth and optoelectrical properties of layered semiconductors, LaMnXO ($\text{X} = \text{P}, \text{As}, \text{and Sb}$); *J. Appl. Phys.*, 105, 073903, (2009).
 669. S.A.Baily, Y.Kohama, H.Hiramatsu, B.Maiorov, F.F.Balakirev, M.Hirano, and H.Hosono: Pseudoisotropic Upper Critical Field in Cobalt-Doped SrFe_2As_2 Epitaxial Films; *Phys.Rev.lett.* 102, 117004 (2009)
 670. A. Sato, K. Abe, R. Hayashi, H. Kumomi, K. Nomura, T. Kamiya, M. Hirano, and H. Hosono: Amorphous In-Ga-Zn-O coplanar homojunction thin-film transistor; *Appl. Phys. Lett.*, 94, 133502-1 - 3, (2009).
 671. M. Ishida, R. Kajimoto, S. Shamoto, M. Arai, A. Iyo, K. Miyazawa, P. M. Shirage, H. Kito, H. Eisaki, S.W. Kim, H. Hosono, T. Guidi, R. Bewley, and M. Bennington: Two-Dimensional Spin Density Wave State in LaFeAsO ; *Journal of the Physical Society of Japan*, 78, 043705 (2009)
 672. S. Higashitaniguchi, M. Seto, S. Kitao, Y. Kobayashi, M. Saito, M. Kurokuzu, T. Mitsui, Y. Yoda, Y. Kamihara, M. Hirano, and H. Hosono: Mossbauer Spectroscopy of $\text{La}_{0.87}\text{Ca}_{0.13}\text{FePO}$ and $\text{LaFeAsO}_{0.93}\text{F}_{0.07}$ under External Magnetic Field and Nuclear Resonant Inelastic Scattering of $\text{La}_{0.87}\text{Ca}_{0.13}\text{FePO}$; *Journal of the Physical Society of Japan* 78, 024704 (2009)
 673. S. Matsuishi, Y. Inoue, T. Nomura, Y. Kamihara, M. Hirano, and H. Hosono, Effect of 3d transition metal doping on the superconductivity in quaternary fluoroarsenide CaFeAsF ; *New Journal of Physics*, 11, 025012 FEB (2009).
 674. K. Hayashi, H. Muramatsu, S. Matsuishi, T. Kamiya, and H. Hosono: Humidity-Sensitive Electrical Conductivity in $\text{Ca}_{12}\text{Al}_{14-x}\text{Si}_x\text{O}_{32}\text{Cl}_{2+x}$ ($0 < x < 3.4$) Ceramics; *Electrochemical and Solid-State Letters*, 12, J11-J13, (2009).
 675. K. Tatsumi, Naoki Fujiwara, H. Okada, H. Takahashi, Y. Kamihara, M. Hirano, and H. Hosono: ^{75}As -NMR Studies on $\text{LaFeAsO}_{1-x}\text{F}_x$ ($x=0.14$) under a Pressure of 3 GPa; *Journal of the Physical Society of Japan*, 78, 023709, (2009)
 676. K. Igawa, H. Okada, K. ARII, H. Takahashi, Y. Kamihara, M. Hirano, H. Hosono, S. Nakano, and T. Kikegawa: Pressure Study of Superconducting Oxypnictide LaFePO ; *Journal of the Physical Society of Japan*, 78, 023701, (2009)
 677. Y. Xiao, Y. Su, R. Mittal, T. Chatterji, T. Hansen, C. M. Kumar, S. Matsuishi, H. Hosono, and Th. Brueckel: Magnetic order in the $\text{CsFe}_{1-x}\text{Co}_x\text{AsF}$ (0.00, 0.06, 0.12) superconducting compounds; *Physical Review B*, 79, 060504(R), (2009).
 678. Y. Ishida, T. Shimojima, K. Ishizaka, T. Kiss, M. Okawa, T. Togashi, S. Watanabe, X.-Y. Wang, C.-T. Chen, Y. Kamihara, M. Hirano, H. Hosono, and S. Shin, Temperature-dependent pseudogap in the oxypnictides $\text{LaFeAsO}_{1-x}\text{F}_x$ and $\text{LaFePO}_{1-x}\text{F}_x$ seen via angle-integrated photoemission; *Physical Review B*, 79, 060503(R), 2009.
 679. Jiang Li, K. Hayashi, M. Hirano, and H. Hosono: Sustainable Thermionic O. Emission from Stoichiometric $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ with Nanoporous Crystal Structure; *Journal of The Electrochemical Society*, 156, G1-G5, (2009).
 680. H. Hiramatsu, Y. Kamihara, H. Yanagi, K. Ueda, T. Kamiya, M. Hirano, and H. Hosono: Layered mixed-anion compounds: Epitaxial growth, active function exploration, and device application; *J. Europ. Ceram. Soc.*, 29, 245-253, (2009).
 681. K. Igawa, H. Okada, H. Takahashi, S. Matsuishi, Y. Kamihara, M. Hirano, H. Hosono, K. Matsubayashi, and Y. Uwatoko: Pressure-Induced Superconductivity in Iron Pnictide Compound SrFe_2As_2 ; *JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN*, 78, 025001, (2009)

682. K.Matsuzaki, H.Hosono H, T.Susaki, Layer-by-layer epitaxial growth of polar MgO(111) thin films; *PHYSICAL REVIEW B*, 82(3)033408(2010)
683. M.Zbiri, R.Mittal, S.Rols, YX Su, YG Xiao, H.Schober, SL.Chaplot, MR. Johnson, T. Chatterji, Y.Inoue, S.Matsuishi, H. Hosono, T.Brueckel, Magnetic lattice dynamics of the oxygen-free FeAs pnictides: how sensitive are phonons to magnetic ordering?; *JOURNAL OF PHYSICS-CONDENSED MATTER*, 22(31) 15701 (2010)
684. M. Yasukawa, T. Kono, K. Ueda, H. Yanagi, H. Hosono High-temperature thermoelectric properties of La-doped BaSnO₃ ceramics, *Materials Science and Engineering: B*, 173(1-3) 29-32(2010).
685. T. Tohei, T. Mizoguchi, H. Hiramatsu, H. Hosono, and Y. Ikuhara: Interface atomic structure of LaCuOSe:Mg epitaxial thin film and MgO substrate; *Materials Science and Engineering B*, 173, 229-233, (2010).
686. Y. Nishio, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Short-channel nanowire transistor using a nanoporous crystal semiconductor 12CaO·7Al₂O₃; *Materials Science and Engineering B*, 173, 3740, (2010).
687. H. Yanagi, Katsutoshi Fukuma, T. Kamiya, M. Hirano, H. Hosono: Electrical and magnetic properties of quaternary compounds LnMnPO (Ln = Nd, Sm, Gd) with ZrCuSiAs-type structure; *Materials Science and Engineering B*, 173, 47-50, (2010).
688. K. Kajihara, T. Miura, H. Kamioka, M. Hirano, L. Skuja, and H. Hosono: Diffusion of oxygen molecules in fluorine-doped amorphous SiO₂; *Materials Science and Engineering B*, 173, 158-161, (2010).
689. T. Kamiya, H. Hiramatsu, T. Katase, M. Hirano, H. Hosono: Impurities in FeAs-based superconductor, SrFe₂As₂, studied by first-principles calculations; *Materials Science and Engineering B*, 173, 244-247, (2010).
690. T. Kamiya, H. Yanagi, T. Watanabe, M. Hirano, H. Hosono: Electronic structures of MnP-based crystals: LaMnOP, BaMn₂P₂, and KMnP; *Materials Science and Engineering B*, 173, 239-243, (2010).
691. T. Katase, Yoshihiro Ishimaru, A. Tsukamoto, H. Hiramatsu, T. Kamiya, K. Tanabe and H. Hosono: DC superconducting quantum interference devices fabricated using bicrystal grain boundary junctions in Co-doped BaFe₂As₂ epitaxial films; *Supercond. Sci. Technol.*, 23, 082001-1 - 4, (2010).
692. Dong Hee Lee, K. Kawamura, K. Nomura, T. Kamiya, and H. Hosono: Large Photoresponse in Amorphous InGaZnO and Origin of Reversible and Slow Decay; *Electrochemical and Solid-State Letters*, 13, H324-H327, (2010).
693. K. Nomura, T. Aoki, Kiyosi Nakamura, T. Kamiya, T. Nakanishi, T. Hasegawa, M. Kimura, T. Kawase, M. Hirano, and H. Hosono: Three-dimensionally stacked flexible integrated circuit: Amorphous oxide/polymer hybrid complementary inverter using n-type a-In-Ga-Zn-O and p-type poly-(9,9-dioctylfluorene-co-bithiophene) thin-film transistors; *APPLIED PHYSICS LETTERS*, 96, 263509, (2010).
694. H. Hiramatsu, T. Kamiya, K. Ueda, M. Hirano, and H. Hosono: Origin of high-density hole doping and anisotropic hole transport in a wide gap layered semiconductor LaCuOSe studied by first-principles calculations; *Phys. Status Solidi A*, 207, 1636-1641, (2010).
695. T. Kamiya, K. Nomura, and H. Hosono: Subgap states, doping and defect formation energies in amorphous oxide semiconductor a-InGaZnO₄ studied by density functional theory; *Phys. Status Solidi A*, 207, 1698-1703, (2010).
696. M. Kimura, T. Kamiya, T. Nakanishi, K. Nomura, and H. Hosono: Intrinsic carrier mobility in amorphous InGaZnO thin-film transistors determined by combined field-effect technique; *APPLIED PHYSICS LETTERS*, 96, 262105, (2010).

697. S. Kitagawa, Y. Nakai, T. Iye, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: Stripe antiferromagnetic correlations in $\text{LaFeAsO}_{1-x}\text{F}_x$ probed by ^{75}As NMR, *Phys. Rev. B*, 81, 212502 (2010).
698. T. Katase, H. Hiramatsu, T. Kamiya, and H. Hosono: High Critical Current Density 4 MA/cm² in Co-doped BaFe_2As_2 Epitaxial Films Grown on $(\text{La},\text{Sr})(\text{Al},\text{Ta})\text{O}_3$ Substrates without Buffer Layers; *Applied Physics Express*, 3, 063101, (2010).
699. Y. Xiao, Y. Su, R. Mittal, T. Chatterji, T. Hansen, S. Price, C. M. N. Kumar, J. Persson, S. Matsuishi, Y. Inoue, H. Hosono, and Th. Brueckel: Neutron diffraction study of phase transitions and thermal expansion of SrFeAsF ; *Physical Review B*, 81, 094523, (2010).
700. T. Nakano, Naoki Fujiwara, K. Tatsumi, H. Okada, H. Takahashi, Y. Kamihara, M. Hirano, and H. Hosono: Enhancement of the critical temperature of the pnictide superconductor $\text{LaFeAsO}_{1-x}\text{F}_x$ studied via ^{75}As NMR under pressure, *PHYSICAL REVIEW B*, 81, 100510R (2010).
701. T. Shinozaki, K. Nomura, T. Katase, T. Kamiya, M. Hirano, H. Hosono: Fabrication of GaN epitaxial thin film on InGaZnO_4 single-crystalline buffer layer; *Thin Solid Films*, 518, 2996-2999, (2010).
702. ★T. Katase, Yoshihiro Ishimaru, A. Tsukamoto, H. Hiramatsu, T. Kamiya, K. Tanabe, and H. Hosono: Josephson junction in cobalt-doped BaFe_2As_2 epitaxial thin films on $(\text{La},\text{Sr})(\text{Al},\text{Ta})\text{O}_3$ bicrystal substrates; *Appl. Phys. Lett.*, 96, 142507-1 - 3, (2010).
703. D. H. Lee, K. Kawamura, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Steady-state photoconductivity of amorphous In-Ga-Zn-O ; *Thin Solid Films*, 518, 3000-3003, (2010).
704. K. Nomura, T. Kamiya, Yutomo Kikuchi, M. Hirano, H. Hosono: Comprehensive studies on the stabilities of a-In-Ga-Zn-O based thin film transistor by constant current stress; *Thin Solid Films*, 518, 3012-3016, (2010).
705. Y. Kikuchi, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Device characteristics improvement of a-In-Ga-Zn-O TFTs by low-temperature annealing; *Thin Solid Films*, 518, 3017-3021, (2010).
706. T. Kamiya, K. Nomura, and H. Hosono: Origin of definite Hall voltage and positive slope in mobility-donor density relation in disordered oxide semiconductors; *Appl. Phys. Lett.*, 96, 122103-1 - 3, (2010).
707. T. Katase, K. Nomura, H. Ohta, H. Yanagi, T. Kamiya, M. Hirano, and H. Hosono: Fabrication of Atomically Flat ScAlMgO_4 Epitaxial Buffer Layer and Low-Temperature Growth of High-Mobility ZnO Films; *Cryst. Growth & Des.*, 10, 1084-1089, (2010).
708. C.J.Zhang, H. Oyanagi, Z.H.Sun, Y. Kamihara, and H. Hosono: Electronic and lattice structures in $\text{SmFeAsO}_{1-x}\text{F}_x$ probed by x-ray absorption spectroscopy; *PHYSICAL REVIEW B*, 81, 094516 (2010).
709. Y. Kamihara, T. Nomura, M. Hirano, J. E. Kim, K. Kato, M. Takata, Y. Kobayashi, S. Kitao, S. Higashitaniguchi, Y. Yoda, M. Seto, and H. Hosono: Electronic and magnetic phase diagram of superconductors, $\text{SmFeAsO}_{1-x}\text{F}_x$; *New J. Phys.*, 12, 033005, (2010).
710. H. Okada, H. Takahashi, S. Matsuishi, M. Hirano, H. Hosono, K. Matsubayashi, Y. Uwatoko, and H. Takahashi: Pressure dependence of the superconductor transition temperature of $\text{Ca}(\text{Fe}_{1-x}\text{Co}_x)\text{AsF}$ compounds: A comparison with the effect of pressure on $\text{LaFeAsO}_{1-x}\text{F}_x$; *Phys. Rev. B*, 81, 054507, (2010).
711. W. Bi, H.B. Banks, J.S. Schilling, H. Takahashi, H. Okada, Y. Kamihara, M. Hirano and H. Hosono: Anomalous He-gas high-pressure studies on superconducting $\text{LaO}_{1-x}\text{F}_x\text{FeAs}$; *New Journal of Physics*, 12, 023005-023012, (2010).

712. M. Miyakawa, H. Hiramatsu, T. Kamiya, M. Hirano, H. Hosono: Fabrication and electron transport properties of epitaxial films of electron-doped $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ and $12\text{SrO} \cdot 7\text{Al}_2\text{O}_3$; *Journal of Solid State Chemistry*, 183, 385-391, (2010).
713. Yoshinori Muraba, Satoru Matsuishi, Sung-Wng Kim, Toshiyuki Atou, Osamu Fukunaga, and Hideo Hosono: High-pressure synthesis of the indirectly electron-doped iron pnictide superconductor $\text{Sr}_{1-x}\text{La}_x\text{Fe}_2\text{As}_2$ with maximum $T_c = 22$ K; *PHYSICAL REVIEW B (RAPID COMMUNICATION)*, 82, 180512(R), (2010).
714. Hiromichi Ohta, Yukio Sato, Takeharu Kato, SungWng Kim, Kenji Nomura, Yuichi Ikuhara & Hideo Hosono: Field-induced water electrolysis switches an oxide semiconductor from an insulator to a metal; *Nature Comm.*, 1, 118, (2010).
715. Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Interface and bulk effects for bias-light-illumination instability in amorphous-In-Ga-Zn-O thin-film transistors; *J. Soc. Inf. Display*, 18, 789-795, (2010).
716. T. Nakano, N. Fujiwara, M. Hirano, H. Hosono, H. Okada and T. Takahashi: Magnetic Fluctuation and Superconductivity in $\text{LaFeAsO}_{1-x}\text{F}_x$ under Pressure as seen via ^{75}As NMR ; *Physical Review B*, 82, 172502, (2010).
717. T. Tamegai, Y. Tsuchiya, Y. Nakajima, Y. Kamihara, H. Hosono: Inter-granular current in iron-oxypnictide superconductors; *Physica C*, 470, 993-995, (2010).
718. Y. Nishio, K. Nomura, H. Yanagi, T. Kamiya, M. Hirano, H. Hosono: Short-channel nanowire transistor using a nanoporous crystal semiconductor $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *Materials Science and Engineering B*, 173, 37-40, (2010).
719. Toshihiro Yoshizumi, Satoru Matsuishi, Sung-Wng Kim, Hideo Hosono, and Katsuro Hayashi: Iodometric Determination of Electrons Incorporated into Cages in $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Crystals; *J. Physical Chemistry C*, 114, 15354-15357, (2010).
720. Shyam Mohan, Toshihiro Taen, Hidenori Yagyuda, Yasuyuki Nakajima, Tsuyoshi Tamegai, Takayoshi Katase, Hidenori Hiramatsu, and Hideo Hosono: Transport and magnetic properties of Co-doped BaFe_2As_2 epitaxial thin films grown on MgO substrate; *Supercond. Sci. Technol.*, 23, 105016-1 - 5, (2010).
721. Hidenori Hiramatsu, Toshio Kamiya, Tetsuya Tohei, Eiji Ikenaga, Teruyasu Mizoguchi, Yuichi Ikuhara, Keisuke Kobayashi, and Hideo Hosono: Origins of Hole Doping and Relevant Optoelectronic Properties of Wide Gap p-Type Semiconductor, LaCuOSe ; *J. Am. Chem. Soc.*, 132, 15060-15067, (2010).
722. Seigo SOUMA, Toshiyuki ARAKANE, Takafumi SATO, Takashi TAKAHASHI, Sung Wng KIM, Satoru MATSUISHI, and Hideo HOSONO: Direct Evidence for Cage Conduction Band in Superconducting Cement $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ by Low-Energy High-Resolution Photoemission Spectroscopy; *Journal of the Physical Society of Japan*, 79, 103704-1 - 7, (2010).
723. N.Fujiwara, K.tatsumi, T.Nakano, H.Okada, H.Tkahashi, Y.Kamihara, M.Hirano, and H.Hosono: ^{75}As -nuclear magnetic relaxation on $\text{LaFeAsO}_{1-x}\text{F}_x$ under pressure; *Physica C*, 207, S347-S348 (2010)
724. H.Oyamagi, C.J.Zhang, Z.H.Sun, Y.Kamihara, and H.Hosono: Low-temperature lattice anomaly in $\text{LaFeAsO}_{0.93}\text{F}_{0.07}$ probed by X-ray absorption spectroscopy: Evidence for strong electron-lattice interaction; *Physica C*, 207, S311-S312 (2010)
725. Y.Tsuchiya, Y.Nakajima, T.Tamegai, Y.Kamihara, M.Hirano, and H.Hosono: Magneto-optical imaging of polycrystalline $\text{LaFePO}_{1-x}\text{F}_x$; *Physica C*, 207, S300-S301 (2010)
726. Yuuki Kawashima, Koichi Ichimura, Toru Kurosawa, Migaku Oda, Satoshi Tanda, Hiroki Tkahashi, Hironari Okada, Yoichi Kamihara, and Hideo Hosono: Electron tunneling using STM/STS on iron-based oxypnictides ; *Physica C*, 207, S315-S316 (2010)

727. Yasuyuki Nakajima, Toshihide Maruoka, Tsuyoshi Tamegai, Yoichi Kamihara, Masahiro Hirano, and Hideo Hosono: Magneto-optical imaging of iron-oxypnictide superconductor $\text{LaFeAs}(\text{O}, \text{F})$; *Physica C*, 207, S406-S407(2010)
728. S. Kitagawa, Y. Nakai, T. Iye, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: F-doping dependence of ^{75}As nuclear quadrupole resonance frequency in $\text{LaFeAs}(\text{O}_{1-x}\text{F}_x)$; *Physica C*, 207, S282-S283(2010)
729. N. Fujiwara, K. Tatsumi, T. Nakano, H. Okada, H. Takahashi, Y. Kamihara, M. Hirano, H. Hosono: ^{75}As -nuclear magnetic relaxation on $\text{LaFeAsO}_{1-x}\text{F}_x$ under pressure; *Physica C*, 470, S347-348(2010).

• 2011

730. Xiaofeng Liu, Satoru Matsuishi, Satoru Fujitsu, and Hideo Hosono: Spin-glass-like behavior of $\text{CaNi}_{1-x}\text{Mn}_x\text{Ge}$; *Phys. Rev. B*, 84, 214439-1 - 6, (2011).
731. Gihun Ryu, Sung Wng Kim, Satoru Matsuishi, Hitoshi Kawaji, and Hideo Hosono: Superconductivity in Nb_4MSi ($M=\text{Ni}, \text{Co}, \text{and Fe}$) with a quasi-two-dimensional Nb network; *Phys. Rev. B* 84, 224518-1 - 6, (2011).
732. Kosuke Matsuzaki, Hironori Takagi, Hideo Hosono, and Tomofumi Susaki: Structural study of polar $\text{MgO}(111)$ epitaxial thin films grown on $\text{SrTiO}_3(111)$; *Phys. Rev. B*, 84, 235448-1 - 6, (2011).
733. S. Kitagawa, H. Ikeda, Y. Nakai, T. Hattori, K. Ishida, Y. Kamihara, M. Hirano, and H. Hosono: Metamagnetic Behavior and Kondo Breakdown in Heavy-Fermion CeFePO ; *Phys. Rev. Lett.*, 107, 277002-1 - 5, (2011).
734. S. K. Mishra, R. Mittal, S. L. Chaplot, S. V. Ovsyannikov, D. M. Trots, L. Dubrovinsky, Y. Su, Th. Brueckel, S. Matsuishi, H. Hosono, and G. Garbarino: Pressure dependence of the low-temperature crystal structure and phase transition behavior of CaFeAsF and SrFeAsF : A synchrotron x-ray diffraction study; *Phys. Rev. B*, 84, 224513-1 - 12, (2011).
735. Hiroshi Mizoguchi, Toshio Kamiya, Hideo Hosono: Superconducting compounds with metallic square net; *Sol. Stat. Comm.*, (2011).
736. Tomofumi Susaki, Asahi Makishima, and Hideo Hosono: Work function engineering via $\text{LaAlO}_3/\text{SrTiO}_3$ polar interfaces; *Phys. Rev. B*, 84, 115456, (2011).
737. Linards Skuja, Koichi Kajihara, Masahiro Hirano, and Hideo Hosono: Visible to vacuum-UV range optical absorption of oxygen dangling bonds in amorphous SiO_2 ; *Phys. Rev. B*, 84, 205206, (2011).
738. Kyeongmi Lee, Kenji Nomura, Hiroshi Yanagi, Toshio Kamiya, Hideo Hosono: Photovoltaic properties of n-type amorphous In-Ga-Zn-O and p-type single crystal Si heterojunction solar cells: Effects of Ga content; *Thin Solid Films*, (2011).
739. Satoru Watanabe, Toshinari Watanabe, Kazuhiro Ito, Naomichi Miyakawa, Setsuro Ito, Hideo Hosono, and Shigeo Mikoshiba: Secondary electron emission and glow discharge properties of $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ electride for fluorescent lamp applications; *Sci. Technol. Adv. Mater.*, 12, 034410, (2011).
740. S. Mohan, T. Taen, H. Yagyuda, Y. Nakajima, T. Tamegai, T. Katase, H. Hiramatsu, and H. Hosono: Characterization of epitaxial Co-doped BaFe_2As_2 thin films; *Physica C*, 471, 1181-1184, (2011).
741. D. Nakamura, T. Akiike, H. Takahashi, F. Nabeshima, Y. Imai, A. Maeda, T. Katase, H. Hiramatsu, H. Hosono, S. Komiya, and I. Tsukada: Terahertz conductivity measurement of $\text{FeSe}_{0.5}\text{Te}_{0.5}$ and Co-doped BaFe_2As_2 thin films; *Physica C*, 471, 634-638, (2011).

742. K. Abe, N. Kaji, H. Kumomi, K. Nomura, T. Kamiya, M. Hirano, H. Hosono: Simple Analytical Model of On Operation of Amorphous In-Ga-Zn-O Thin-Film Transistors; *IEEE Trans. Electron Dev.*, 58, 3463-3471, (2011).
743. D.H. Lee, K. Nomura, T. Kamiya, H. Hosono: Diffusion-Limited a-IGZO/Pt Schottky Junction Fabricated at 200°C on a Flexible Substrate; *IEEE Electron Device Letters*, 32, 1695-1697, (2011).
744. Keisuke Ide, Yutomo Kikuchi, Kenji Nomura, Mutsumi Kimura, Toshio Kamiya, and Hideo Hosono: Effects of excess oxygen on operation characteristics of amorphous In-Ga-Zn-O thin-film transistors; *Appl. Phys. Lett.*, 99, 093507-1 - 3, (2011).
745. Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Highly stable amorphous In-Ga-Zn-O thin-film transistors produced by eliminating deep subgap defects; *Appl. Phys. Lett.*, 99, 053505-1 - 3, (2011).
746. ★Hiroshi Mizoguchi, Toshio Kamiya, Satoru Matsuishi, Hideo Hosono: A germanate transparent conductive oxide; *Nature Comm.*, 2, 470-1 - 5, (2011).
747. Sho Kumada, Kosuke Matsuzaki, Hideo Hosono, and Tomofumi Susaki: Tuning of Surface Roughness and Lattice Constant in MgO(111)/Al₂O₃(0001) Grown by Laser Energy Controlled Pulsed Laser Deposition; *Jpn. J. Appl. Phys.*, 50, 085503-1 - 5, (2011).
748. Masahiro Yasukawa, Yukihiro Hamada, Toshio Kono, Kazushige Ueda, Hiroshi Yanagi, Sung Wng Kim and Hideo Hosono: Thermoelectric Properties of P-type BaSnO₃ Ceramics Doped with Cobalt; *Journal of the Japan Society of Powder and Powder Metallurgy*, 58, 149-154, (2011).
749. ★Takayoshi Katase, Yoshihiro Ishimaru, Akira Tsukamoto, Hidenori Hiramatsu, Toshio Kamiya, Keiichi Tanabe, and Hideo Hosono: Advantageous grain boundaries in iron pnictide superconductors; *Nat. Commun.*, 2, 409-1 - 409-6, (2011).
750. Tao Chen, Meng-Yue Wu, Ryoichi Ishihara, Kenji Nomura, Toshio Kamiya, Hideo Hosono, C. I. M. Beenakker: Solid-phase epitaxial growth of (111)-oriented Si film on InGaO₃(ZnO)₅ buffer layer; *J Mater Sci: Mater Electron*, 22, 920-923, (2011).
751. Taku Hanna, Yoshinori Muraba, Satoru Matsuishi, Naoki Igawa, Katsuaki Kodama, Shin-ichi Shamoto, and Hideo Hosono: Hydrogen in layered iron arsenides: Indirect electron doping to induce superconductivity; *Phys. Rev. B*, 84, 024521-1-7, (2011).
752. ★Sung Wng Kim, Terumasa Shimoyama, and Hideo Hosono: Solvated Electrons in High-Temperature Melts and Glasses of the Room-Temperature Stable Electride [Ca₂₄Al₂₈O₆₄]^{4+·4e⁻}; *Science*, 333, 71-74, (2011).
753. Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Ambipolar Oxide Thin-Film Transistor; *Adv. Mater.*, 23, 3431-3434, (2011).
754. Takayoshi Katase, Hidenori Hiramatsu, Vladimir Matias, Chris Sheehan, Yoshihiro Ishimaru, Toshio Kamiya, Keiichi Tanabe, and Hideo Hosono: Biaxially textured cobalt-doped BaFe₂As₂ films with high critical current density over 1 MA/cm² on MgO-buffered metal-tape flexible substrates; *Appl. Phys. Lett.*, 98, 242510-1 - 3, (2011).
755. Kyeongmi Lee, Kenji Nomura, Hiroshi Yanagi, Toshio Kamiya, and Hideo Hosono: Electronic Structure and Photovoltaic Properties of n-Type Amorphous In-Ga-Zn-O and p-Type Single Crystal Si Heterojunctions; *Electrochemical and Solid-State Letters*, 14, H346-349, (2011).
756. K. Kodama, S. Wakimoto, N. Igawa, S. Shamoto, H. Mizoguchi, and H. Hosono: Crystal and magnetic structures of the superconductor CeNi_{0.8}Bi₂; *Phys. Rev. B*, 83, 214512, (2011).
757. Jun-Hyuk Park, Seong Jun Kang, Seok-In Na, Hyun Hwi Lee, Sung-Wng Kim, H. Hosono, and Han-Ki Kim: Indium-free, acid-resistant anatase Nb-doped TiO₂ electrodes

- activated by rapid-thermal annealing for cost-effective organic photovoltaics; *Solar Energy Materials & Solar Cells*, 95, 2178-2185, (2011).
758. Peter V. Sushko, Alexander L. Shluger, Yoshitake Toda, Masahiro Hirano, and Hideo Hosono: Models of stoichiometric and oxygen-deficient surfaces of subnanoporous $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$; *Proc. R. Soc. A*, 467, 2066-2083, (2011).
759. Hiroshi Mizoguchi, Toshiaki Kuroda, Toshio Kamiya, and Hideo Hosono: LaCo_2B_2 : A Co-Based Layered Superconductor with a ThCr_2Si_2 -Type Structure; *Phys. Rev. Lett.*, 106, 237001, (2011).
760. T. Nakano, S. Tsutsumi, N. Fujiwara, S. Matsuishi, and H. Hosono: Homogeneous coexistence of superconducting and spin-density-wave states in $\text{CaFe}_{1-x}\text{Co}_x\text{AsF}$ as seen via nuclear magnetic resonance; *PHYSICAL REVIEW B*, 83, 180508(R), (2011).
761. Hiroki Takahashi, Hiroyuki Takahashi, Takahiro Tomita, Hironari Okada, Yoshikazu Mizuguchi, Yoshihiko Takano, Satoru Matsuishi, Masahiro Hirano, and Hideo Hosono: High-Pressure Studies for Iron-Based Superconductors; *Japanese Journal of Applied Physics*, 50, 05FD01, (2011).
762. Fuji Funabiki, Satoru Matsuishi, and Hideo Hosono: Ligand Field Modification around Cu^{2+} Ions in Sodium Borate Glass by Codoping; *J. Phys. Chem. A*, 115, 5081-5088, (2011).
763. Koichi Kajihara, Masahiro Hirano, Linards Skuja, and Hideo Hosono: Frenkel defect process in amorphous silica; *Proc. of SPIE*, 8077, 80770R-1-12, (2011).
764. Terutoshi Sakakura, Kiyooki Tanaka, Yasuyuki Takenaka, Satoru Matsuishi, Hideo Hosono and Shunji Kishimoto: Determination of the local structure of a cage with an oxygen ion in $\text{Ca}_{12}\text{Al}_{14}\text{O}_{33}$; *Acta Cryst.*, B67, 193-204, (2011).
765. Dirk Johrendt, Hideo Hosono, Rolf-Dieter Hoffmann, and Rainer Pottgen: Structural Chemistry of superconducting pnictides and pnictide oxides with layered structures; *Z. Kristallogr.*, 226, 435-446, (2011).
766. Linards Skuja, Koichi Kajihara, Masahiro Hirano, Hideo Hosono: Crucial dependence of excimer laser toughness of “wet” silica on excess oxygen; *J. Non-Cryst. Sol.*, 357, 1875-1878, (2011).
767. Koichi Kajihara, Masahiro Hirano, Linards Skuja, Hideo Hosono: Oxygen-excess amorphous SiO_2 with ^{18}O -labeled interstitial oxygen molecules ; *J. Non-Cryst. Sol.*, 357, 1842-1845, (2011).
768. Kenji Nomura, Toshio Kamiya, Eiji Ikenaga, Hiroshi Yanagi, Keisuke Kobayashi, and Hideo Hosono: Depth analysis of subgap electronic states in amorphous oxide semiconductor, $\alpha\text{-In-Ga-Zn-O}$, studied by hard x-ray photoelectron spectroscopy ; *JOURNAL OF APPLIED PHYSICS*, 109, 073726, (2011).
769. N. Fujiwara, T. Nakano, H. Okada, H. Takahashi, Y. Kamihara, M. Hirano, H. Hosono: NMR Study Under Pressure on the La_{1111} Pnictides, $\text{LaFeAsO}_{1-x}\text{F}_x$; *J Supercond Nov Magn*, 24, 1145-1148, (2011).
770. R. Mittal, M. Zbiri, S. Rols, Y. Su, Y. Xiao, S. L. Chaplot, H. Schober, M. Johnson, T. Chatterji, S. Matsuishi, H. Hosono, and T. Brueckel: Phonon Dynamics in Parent and Superconducting FeAs Compounds; *CHINESE JOURNAL OF PHYSICS*, 49, 403-413, (2011).
771. ★Y. Toda, Y. Kubota, H. Hiramaya, H. Hosono: Surface of Room-Temperature-Stable Electride $[\text{Ca}_{24}\text{Al}_{28}\text{O}_{64}]^{4+}(\text{e}^-)_4$: Preparation and Its Characterization by Atomic-Resolution Scanning Tunneling Microscope; *ACS NANO*, 5, 1907-1914, (2011).
772. H. Mizoguchi and H. Hosono: La_2Sb , a layered superconductor with metal-metal bonds; *CHEMICAL COMMUNICATIONS*, 47, 3778-3780, (2011).

773. T.Susaki, A.Makishima, H.Hosono: Tunable work function in MgO/Nb:SrTiO₃ surfaces studied by Kelvin probe technique; *PHYSICAL REVIEW B*, 83, 115435-45, (2011).
774. Hiroshi Mizoguchi and Hideo Hosono; A Metal-Insulator Transition in R₂O₂Bi with an Unusual Bi²⁺ Square Net (R = Rare Earth or Y); *J. Amer. Chem. Soc.*, 133, 2394-2397, (2011).
775. Hiroshi TAKAHASHI, Yoichi KAMIHARA, Hiroaki KOGUCHI, Toshiyuki ATOU, Hideo HOSONO, Ikufumi KATAYAMA, Jun TAKEDA, Masahiro KITAJIMA, and Kazutaka G NAKAMURA: Coherent Optical Phonons in the Iron Oxypnictide SmFeAsO_{1-x}F_x (x = 0.075); *Journal of the Physical Society of Japan*, 80, 013707, (2011).
776. Hiroshi Mizoguchi, Satoru Matsuishi, Masahiro Hirano, Makoto Tachibana, Eiji Takayama-Muromachi, Hitoshi Kawaji, and Hideo Hosono: Coexistence of Light and Heavy Carriers Associated with Superconductivity and Antiferromagnetism in CeNi_{0.8}Bi₂ with a Bi Square Net; *Phys. Rev. Lett.*, 106, 057002, (2011).
777. R. Mittal, S. K. Mishra, S. L. Chaplot, S. V. Ovsyannikov, E. Greenberg, D. M. Trots, L. Dubrovinsky, Y. Su, Th. Brueckel, S. Matsuishi, H. Hosono, and G. Garbarino: Ambient- and low-temperature synchrotron x-ray diffraction study of BaFe₂As₂ and CaFe₂As₂ at high pressures up to 56 GPa; *PHYSICAL REVIEW B*, 83, 054503, (2011).
778. Koichi Kajihara, Taisuke Miura, Hayato Kamioka, Masahiro Hirano, Linards Skuja, and Hideo Hosono: Exchange between interstitial oxygen molecules and network oxygen atoms in amorphous SiO₂ studied by ¹⁸O isotope labeling and infrared photoluminescence spectroscopy; *PHYSICAL REVIEW B*, 83, 064202, (2011).
779. Lijie Shao, Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Operation Characteristics of Thin-Film Transistors Using Very Thin Amorphous In-Ga-Zn-O Channels; *Electrochemical and Solid-State Letters*, 14, H197-H200, (2011).
780. B. Maiorov, T. Katase, S. A. Baily, H. Hiramatsu, T. G. Holesinger, H. Hosono, and L. Civale: Liquid vortex phase and strong c-axis pinning in low anisotropy BaCo_xFe_{2-x}As₂ pnictide films; *Supercond. Sci. Technol.*, 24, 055007, (2011).
781. Hideo Hosono, Yoichi Ogo, Hiroshi Yanagi, and Toshio Kamiya: Bipolar Conduction in SnO Thin Films; *Electrochemical and Solid-State Letters*, 14, H13-16, (2011).

• 2012

782. Katsumi Abe, Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Optical evidence for quantization in transparent amorphous oxide semiconductor superlattice; *Phys. Rev. B Rapid Communications*, 86, 081202(R)-1 - 4, (2012)
783. Jiangang Guo, Yanpeng Qi, Satoru Matsuishi, and Hideo Hosono: Tc Maximum in Solid Solution of Pyrite IrSe₂-RhSe₂ Induced by Destabilization of Anion Dimers; *J. Am. Chem. Soc. (Commun.)*, 134, 20001-20004, (2012).
784. Yanpeng Qi, Satoru Matsuishi, Jiangang Guo, Hiroshi Mizoguchi, and Hideo Hosono: Superconductivity in Defective Pyrite-Type Iridium Chalcogenides Ir_xCh₂ (Ch = Se and Te); *Phys. Rev. Lett.*, 109, 217002-1 - 217002-5, (2012).
785. Koichi Kajihara, Linards Skuja, Hideo Hosono: ¹⁸O-labeled interstitial oxygen molecules as probes to study reactions involving oxygen-related species in amorphous SiO₂; *Journal of Non-Crystalline Solids*, 358, 3524-3530, (2012).
786. Keisuke Ide, Kenji Nomura, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Structural relaxation in amorphous oxide semiconductor; *J. Appl. Phys.*, 111, 073513-1 - 6, (2012).

787. Fuji Funabiki, Satoru Matsuishi, and Hideo Hosono: Elucidation of codoping effect in Cu²⁺-containing sodium borate glass; *Journal of Non-Crystalline Solids*, 358, 2446–2449, (2012).
788. ★Masaaki Kitano, Yasunori Inoue, Youhei Yamazaki, Fumitaka Hayashi, Shinji Kanbara, Satoru Matsuishi, Toshiharu Yokoyama, Sung-Wng Kim, Michikazu Hara, and Hideo Hosono: Ammonia synthesis using a stable electride as an electron donor and reversible hydrogen store; *Nat. Chem.*, 4, 934–940, (2012).
789. Hisayoshi Daicho, Takeshi Iwasaki, Kiminori Enomoto, Yasutaka Sasaki, Yuza Maeno, Yu Shinomiya, Shinobu Aoyagi, Eiji Nishibori, Makoto Sakata, Hiroshi Sawa, Satoru Matsuishi, Hideo Hosono: A novel phosphor for glareless white light-emitting diodes; *Nat. Commun.*, 3, 1132, (2012).
790. B. Maiorov, T. Katase, I. O. Usov, M. Weigand, L. Civale, H. Hiramatsu, and H. Hosono: Competition and cooperation of pinning by extrinsic point-like defects and intrinsic strong columnar defects in BaFe₂As₂ thin films; *Phys. Rev. B*, 86, 094513-1 - 094513-8, (2012).
791. L. Skuja, K. Kajihara, M. Hirano, and H. Hosono: Oxygen-excess-related point defects in glassy/amorphous SiO₂ and related materials; *Nuclear Instruments and Methods in Physics Research B*, 286, 159–168, (2012).
792. S. Tsutsumi, N. Fujiwara, S. Matsuishi, and H. Hosono: Spin density wave and superconductivity in CaFe_{1-x}CoxAsF studied by nuclear magnetic resonance; *Phys. Rev. B*, 86, 060515(R)-1 - 4, (2012).
793. Kyeongmi Lee, Kenji Nomura, Hiroshi Yanagi, Toshio Kamiya, Eiji Ikenaga, Takeharu Sugiyama, Keisuke Kobayashi, and Hideo Hosono: Band alignment of InGaZnO₄/Si interface by hard x-ray photoelectron spectroscopy; *J. Appl. Phys.*, 112, 033713-1 - 6, (2012).
794. Gihun Ryu, Sung Wng Kim, Hiroshi Mizoguchi, Satoru Matsuishi, and Hideo Hosono: Superconductivity in a PbFCl-type pnictide: NbSiAs; *EPL*, 99, 27002-1 - 27002-6, (2012).
795. Xiaofeng Liu, Satoru Matsuishi, Satoru Fujitsu, Toru Ishigaki, Takashi Kamiyama, and Hideo Hosono: Layered Hydride CaNiGeH with a ZrCuSiAs-type Structure: Crystal Structure, Chemical Bonding, and Magnetism Induced by Mn Doping; *J. Am. Chem. Soc.*, 134, 11687–11694, (2012).
796. Dong Hee Lee, Kenji Nomura, Toshio Kamiya and Hideo Hosono: Metal-Semiconductor Field-Effect Transistor Made Using Amorphous In-Ga-Zn-O Channel and Bottom Pt Schottky Contact Structure at 200°C; *ECS Solid State Letters*, 1, Q8–Q10, (2012).
797. Satoru Matsuishi, Atsushi Nakamura, Yoshinori Muraba, and Hideo Hosono: Hydrogen substitution effect on the superconductivity of LnNiAsO (Ln = La–Nd); *Supercond. Sci. Technol.*, 25, 084017-1 - 084017-7, (2012).
798. Takayoshi Katase, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Thin film growth by pulsed laser deposition and properties of 122-type iron-based superconductor AE(Fe_{1-x}Cox)₂As₂ (AE = alkaline earth); *Supercond. Sci. Technol.*, 25, 084015-1 - 084015-12, (2012).
799. ★Soshi Imura, Satoru Matsuishi, Hikaru Sato, Taku Hanna, Yoshinori Muraba, Sung Wng Kim, Jung Eun Kim, Masaki Takata, and Hideo Hosono: Two-dome structure in electron-doped iron arsenide superconductors; *Nat. Commun.*, 3, 943-1 - 943-6, (2012).

800. K. Nakayama, E. Ieki, Y. Tanaka, T. Sato, T. Takahashi, T. Kuroda, H. Mizoguchi, S. W. Kim, and H. Hosono: Angle-resolved photoemission spectroscopy of Co-based boride superconductor $\text{LaCo}_{1.73}\text{Fe}_{0.27}\text{B}_2$; *Phys. Rev. B*, 86, 014503-1 - 014503-5, (2012).
801. Kenji Nomura, Toshio Kamiya, Hideo Hosono: Stability and high-frequency operation of amorphous In–Ga–Zn–O thin-film transistors with various passivation layers; *Thin Solid Films*, 520, 3778-3782, (2012).
802. Keisuke Ide, Yutomo Kikuchi, Kenji Nomura, Toshio Kamiya, Hideo Hosono: Effects of low-temperature ozone annealing on operation characteristics of amorphous In–Ga–Zn–O thin-film transistors; *Thin Solid Films*, 520, 3787-3790, (2012).
803. Katsumi Abe, Kenji Takahashi, Ayumu Sato, Hideya Kumomi, Kenji Nomura, Toshio Kamiya, Hideo Hosono: Operation model with carrier-density dependent mobility for amorphous In–Ga–Zn–O thin-film transistors; *Thin Solid Films*, 520, 3791-3795, (2012).
804. Kyeongmi Lee, Kenji Nomura, Hiroshi Yanagi, Toshio Kamiya, Hideo Hosono: Photovoltaic properties of n-type amorphous In-Ga-Zn-O and p-type single crystal Si heterojunction solar cells: Effects of Ga content; *Thin Solid Films*, 520, 3808-3812, (2012).
805. Mutsumi Kimura, Takayuki Hasegawa, Keisuke Ide, Kenji Nomura, Toshio Kamiya, Hideo Hosono: Maximum applied voltage detector using amorphous In–Ga–Zn–O thin-film transistor exposed to ozone annealing; *Solid-State Electronics*, 75, 74-76, (2012).
806. H. Takahashi, T. Tomita, H. Soeda, M. Ebata, K. Okuma, T. Hanna, Y. Muraba, S. Matsuishi, and H. Hosono: High-Pressure Studies for Hydrogen Substituted $\text{CaFeAsF}_{1-x}\text{H}_x$ and $\text{SmFeAsO}_{1-x}\text{H}_x$; *J. Supercond. Nov. Magn.*, 25, 1293-1296, (2012).
807. Hiromichi Ohta, Taku Mizuno, Shijian Zheng, Takeharu Kato, Yuichi Ikuhara, Katsumi Abe, Hideya Kumomi, Kenji Nomura, and Hideo Hosono: Unusually Large Enhancement of Thermopower in an Electric Field Induced Two-Dimensional Electron Gas; *Advanced Materials*, 24, 740-744, (2012).
808. Takayoshi Katase, Soshi Iimura, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Identical effects of indirect and direct electron doping of superconducting BaFe_2As_2 thin films; *Phys. Rev. B*, 85, 140516(R)-1 - 4, (2012).
809. Mutsumi Kimura, Takayuki Hasegawa, Keisuke Ide, Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Light Irradiation History Sensor Using Amorphous In-Ga-Zn-O Thin-Film Transistor Exposed to Ozone Annealing; *IEEE Electron Dev. Lett.*, 33, 384-386, (2012).
810. Hidenori Hiramatsu, Takayoshi Katase, Yoshihiro Ishimaru, Akira Tsukamoto, Toshio Kamiya, Keiichi Tanabe, Hideo Hosono: Microstructure and transport properties of [0 0 1]-tilt bicrystal grain boundaries in iron pnictide superconductor, cobalt-doped BaFe_2As_2 ; *Mater. Sci. Eng. B*, 177, 515-519, (2012).
811. Hiroshi Yanagi, Toshifumi Kuroda, Ki-Beom Kim, Yoshitake Toda, Toshio Kamiya and Hideo Hosono: Electron injection barriers between air-stable electride with low work function, $\text{C}_{12}\text{A}_7\text{:e}^-$, and pentacene, C_{60} and copper phthalocyanine; *J. Mater. Chem.*, 22, 4278-4281, (2012).
812. S. Sallis, L. F. J. Piper, J. Francis, J. Tate, H. Hiramatsu, T. Kamiya, and H. Hosono: Role of lone pair electrons in determining the optoelectronic properties of BiCuOSe ; *Phys. Rev. B*, 85, 085207-1 - 6, (2012).

813. Hiroshi Mizoguchi, Toshio Kamiya, Hideo Hosono: Superconducting compounds with metallic square net; *Solid State Commun.*, 152, 666-670, (2012).
814. Yusuke Nakai, Shunsaku Kitagawa, Tetsuya Iye, Kenji Ishida, Yoichi Kamihara, Masahiro Hirano, and Hideo Hosono: Enhanced anisotropic spin fluctuations below tetragonal-to-orthorhombic transition in LaFeAs(O_{1-x}F_x) probed by ⁷⁵As and ¹³⁹La NMR; *Phys. Rev. B*, 85, 134408-1 - 5, (2012).
815. Jiang Li, Bin Yin, Toshio Fuchigami, Shinsuke Inagi, Hideo Hosono, and Setsuro Ito: Application of 12CaO•7Al₂O₃ electride as a new electrode for superoxide ion generation and hydroxylation of an arylboronic acid; *Electrochemistry Communications*, 17, 52-55, (2012).
816. Satoru Matsuishi, Taku Hanna, Yoshinori Muraba, Sung Wng Kim, Jung Eun Kim, Masaki Takata, Shin-ich Shamoto, Ronald I. Smith, and Hideo Hosono: Structural analysis and superconductivity of CeFeAsO_{1-x}H_x; *Phys. Rev. B*, 85, 014514-1 - 6, (2012).
817. Daiki Ojima, Tetsuya Chiba, Kazunari Shima, Hidenori Hiramatsu, Hideo Hosono, and Katsuro Hayashi: Solid-state source of atomic oxygen for low-temperature oxidation processes: Application to pulsed laser deposition of TiO₂:N films; *Rev. Sci. Instrum.*, 023903-1 - 5, (2012).
818. Xiaofeng Liu, Satoru Matsuishi, Satoru Fujitsu, and Hideo Hosono: MgFeGe as an isoelectronic and isostructural analog of the superconductor LiFeAs; *Phys. Rev. B*, 85, 104403-1 - 7, (2012).
819. N. Fujiwara, T. Nakano, Y. Kamihara, and H. Hosono: ⁷⁵As NMR study of the growth of paramagnetic-metal domains due to electron doping near the superconducting phase in LaFeAsO_{1-x}F_x; *Phys. Rev. B*, 85, 094501-1 - 5, (2012).
820. Naoki Imamura, Hiroshi Mizoguchi, and Hideo Hosono: Superconductivity in LaTMBN and La₃TM₂B₂N₃ (TM = Transition Metal) Synthesized under High Pressure; *J. Am. Chem. Soc.*, 134, 2516-2519, (2012).
821. J. A. McLeod, A. Buling, E. Z. Kurmaev, P. V. Sushko, M. Neumann, L. D. Finkelstein, S.-W. Kim, H. Hosono, and A. Moewes: Spectroscopic characterization of a multiband complex oxide: Insulating and conducting cement 12CaO•7Al₂O₃; *Phys. Rev. B*, 85, 045204-1 - 8, (2012).
822. Chung-Ki Cho, SungWng Kim, H. Hosono, and Han-Ki Kim: Effect of Oxygen Flow Rate on the Electrical Properties of a Transparent SiON/Ag/SiON Multilayer; *Electrochemical and Solid-State Letters*, 15, H23-H26, (2012).
823. Fuji FUNABIKI, Toshio KAMIYA, and Hideo HOSONO: Doping effects in amorphous oxides; *Journal of the Ceramic Society of Japan*, 120, 447-457, (2012).
824. S. Fujitsu, S. Matsuishi, and H. Hosono: Iron based superconductors processing and properties; *International Materials Reviews*, 57, 311-327, (2012).
825. Sung Wng Kim and Hideo Hosono: Synthesis and properties of 12CaO•7Al₂O₃ electride: review of single crystal and thin film growth; *Philosophical Magazine*, 92, 2596-2628, (2012).
826. Hideo Hosono: Transparent conducting materials: Flexibility with a metallic skin; *Nature Chemistry*, 4, 252-253, (2012).
827. Hidenori Hiramatsu, Takayoshi Katase, Toshio Kamiya, and Hideo Hosono: Thin Film Growth and Device Fabrication of Iron-Based Superconductors; *J. Phys. Soc. Jpn.*, 81, 011011-1 - 25, (2012).
828. Keiichi Tanabe and Hideo Hosono: Frontiers of Research on Iron-Based Superconductors toward Their Application; *Jpn. J. Appl. Phys.*, 51, 010005-1 - 17, (2012).

2013

829. Hidenori Hiramatsu, Takayoshi Katase, Toshio Kamiya, and Hideo Hosono: Superconducting Properties and Phase Diagram of Indirectly Electron-Doped ($\text{Sr}_{1-x}\text{La}_x$) Fe_2As_2 Epitaxial Films Grown by Pulsed Laser Deposition; *IEEE Trans. Appl. Supercond.*, 23, 7300405, (2013).
830. Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Effects of Diffusion of Hydrogen and Oxygen on Electrical Properties of Amorphous Oxide Semiconductor, In-Ga-Zn-O; *ECS J. Solid State Sci. Technol.*, 2, 5-8, (2013).
831. Kosuke Matsuzaki, Vlado K Lazarov, Leonardo Lari, Hideo Hosono, and Tomofumi Susaki: $\text{Fe}_3\text{O}_4(111)$ thin films with bulk-like properties: growth and atomic characterization; *J. Phys. D: Appl. Phys.*, 46, 022001-1 - 5, (2013).
832. Taku Hanna, Satoru Matusishi, Katsuaki Kodama, Toshiya Otomo, Shin-ichi Shamoto, and Hideo Hosono: From antiferromagnetic insulator to ferromagnetic metal: Effects of hydrogen substitution in LaMnAsO ; *Phys. Rev. B*, 87, 020401(R)-1 - 5, (2013).
833. ★Kimoon Lee, Sung Wng Kim, Yoshitake Toda, Satoru Matsuishi, Hideo Hosono, Dicalcium nitride as a two-dimensional electride with an anionic electron layer; *Nature*, 494,336-340(2013).
834. Ken Watanabe, Dong-Hee Lee, Isao Sakaguchi, Kenji Nomura, Toshio Kamiya, Hajime Haneda, Hideo Hosono, and Naoki Ohashi: Surface reactivity and oxygen migration in amorphous indium-gallium-zinc oxide films annealed in humid atmosphere; *Appl. Phys. Lett.*, 103, 201904-1 - 5, (2013)
835. Yuichiro Hanyu, Kay Domen, Kenji Nomura, Hidenori Hiramatsu, Hideya Kumomi, Hideo Hosono, and Toshio Kamiya: Hydrogen passivation of electron trap in amorphous In-Ga-Zn-O thin-film transistors; *Appl. Phys. Lett.*, 103, 2012114-1 - 3, (2013).
836. Sang-Won Park, Hiroshi Mizoguchi, Katsuaki Kodama, Shin-ichi Shamoto, Toshiya Otomo, Satoru Matsuishi, Toshio Kamiya, and Hideo Hosono: Magnetic Structure and Electromagnetic Properties of LnCrAsO with a ZrCuSiAs -type Structure ($\text{Ln} = \text{La, Ce, Pr, and Nd}$); *Inorg. Chem.*, 52, 13363-13368, (2013).
837. Stephen Price, Yixi Su, Yinguo Xiao, Devashibhai T. Adroja, Tatiana Guidi, Ranjan Mittal, Shibabrata Nandi, Satoru Matsuishi, Hideo Hosono, and Thomas Brückel: Evidence of Spin Resonance Signal in Oxygen Free Superconducting $\text{CaFe}_{0.88}\text{Co}_{0.12}\text{AsF}$: An Inelastic Neutron Scattering Study; *J. Phys.Soc. Jpn.*, 82, 104716, (2013)
838. Tomofumi Susaki and Hideo Hosono: Control of Surface Work Function by Depositing Insulating Oxide Capping Layers; *Jpn. J. Appl. Phys.*, 52, 110125, (2013).
839. Jiangang Guo, Jun-ichi Yamaura, Hechang Lei, Satoru Matsuishi, Yanpeng Qi, and Hideo Hosono: Superconductivity in $\text{Ba}_{n+2}\text{Ir}_4\text{nGe}_{12n+4}$ ($n=1,2$) with cage structure and softening of low-lying localized mode; *Phys. Rev. B*, 88, 140507(R)-1 -5, (2013).
840. Hechang Lei and H. Hosono: Superconductivity and physical properties of strongly electron correlated compounds $\text{LaRu}_3\text{n-1B}_{2n}$ ($n = 1, 2$, and 3); *EPL*, 104, 17003, (2013).
841. Takayoshi Katase, Hikaru Sato, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Unusual pressure effects on the superconductivity of indirectly

- electron-doped $(\text{Ba}_{1-x}\text{La}_x)\text{Fe}_2\text{As}_2$ epitaxial films; *Phys. Rev. B*, 88, 140503(R)-1 - 5, (2013).
842. Masahiro Yasukawa, Toshio Kono, Kazushige Ueda, Hiroshi Yanagi, Sung Wng Kim, Hideo Hosono: Thermoelectric properties and figure of merit of perovskite-type $\text{Ba}_{1-x}\text{La}_x\text{SnO}_3$ with $x=0.002-0.008$; *Solid State Commun.*, 172, 49-53, (2013).
843. Taku Hanna, Yoshinori Muraba, Satoru Matsuishi, and Hideo Hosono: Superconductivity in 1111-type $\text{CaFeAsF}_{1-x}\text{H}_x$ induced by selective hydrogen elimination; *Appl. Phys. Lett.*, 103, 142601-1 - 4, (2013).
844. Yingchao Dong, Hideo Hosono and Katsuro Hayashi: Formation and quantification of peroxide anions in nanocages of $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$; *RSC Adv.*, 3, 18311-18316, (2013).
845. T. Mori, K. Kajihara, K. Kanamura, Y. Toda, H. Hiramatsu, and H. Hosono: Indium-Based Ultraviolet-Transparent Electroconductive Oxyfluoride InOF : Ambient-Pressure Synthesis and Unique Electronic Properties in Comparison with In_2O_3 ; *J. Am. Chem. Soc.*, 135, 13080-13088, (2013).
846. Yoshitake Toda, Hiroyuki Hirayama, Navaratnarajah Kuganathan, Antonio Torrisi, Peter V. Sushko, and Hideo Hosono: Activation and splitting of carbon dioxide on the surface of an inorganic electride material; *Nat. Commun.*, 4, 2378-1 - 8, (2013).
847. Naoki Fujiwara, Shunji Tsutsumi, Soshi Iimura, Satoru Matsuishi, Hideo Hosono, Youichi Yamakawa, and Hiroshi Kontani: Detection of Antiferromagnetic Ordering in Heavily Doped $\text{LaFeAsO}_{1-x}\text{H}_x$ Pnictide Superconductors Using Nuclear-Magnetic-Resonance Techniques; *Phys. Rev. Lett.*, 111, 097002-1-5, (2013).
848. Youichi Yamakawa, Seiichiro Onari, Hiroshi Kontani, Naoki Fujiwara, Soshi Iimura, and Hideo Hosono: Study of phase diagram and superconducting states in $\text{LaFeAsO}_{1-x}\text{H}_x$ based on the multiorbital extended Hubbard model; *Phys. Rev. B*, 88, 041106(R)-1-5, (2013).
849. Fumitaka Hayashi, Yoshitake Toda, Yoshimi Kanie, Masaaki Kitano, Yasunori Inoue, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Ammonia decomposition by ruthenium nanoparticles loaded on inorganic electride $\text{C}_{12}\text{A}_7\cdot e^-$; *Chem. Sci.*, 4, 3124-3130, (2013)
850. Naoki Fujiwara, Yoichi Kamihara, Satoru Matsuishi, and Hideo Hosono: Homogeneous Coexistence and Phase Segregation in 1111 Iron-based Pnictides Studied via NMR; *Journal of the Korean Physical Society*, 62, 2004-2006, (2013).
851. Soshi Iimura, Satoru Matsuishi, Masashi Miyakawa, Takashi Taniguchi, Katsuhiro Suzuki, Hidetomo Usui, Kazuhiko Kuroki, Ryoichi Kajimoto, Mitsutaka Nakamura, Yasuhiro Inamura, Kazuhiko Ikeuchi, Sungdae Ji, and Hideo Hosono: Switching of intra-orbital spin excitations in electron-doped iron pnictide superconductors; *Phys. Rev. B*, 88, 060501(R)-1- 5, (2013).
852. Hiroki Taniguchi, Akihide Kuwabara, Jungeun Kim, Younghun Kim, Hiroki Moriwake, Sungwng Kim, Takuya Hoshiyama, Tsukasa Koyama, Shigeo Mori, Masaki Takata, Hideo Hosono, Yoshiyuki Inaguma, and Mitsuru Itoh: Ferroelectricity Driven by Twisting of Silicate Tetrahedral Chains; *Angew. Chem. Int. Ed. (Communications)*, 52, 8088-8092, (2013).
853. Kosuke Matsuzaki, Hideo Hosono, and Tomofumi Susaki: Magnetotransport Properties across Verwey Transition in $\text{Fe}_3\text{O}_4(111)$ Epitaxial Thin Film; *Appl. Phys. Express*, 6, 073009-1 - 4, (2013).

854. N. Fujiwara, S. Matsuishi, Y. Kamihara, H. Hosono: Homogeneous Coexistence in $\text{CaFe}_{1-x}\text{Co}_x\text{AsF}$ and Phase Segregation in $\text{LaFeAsO}_{1-x}\text{F}_x$ Studied via NMR; *J. Supercond. Nov. Magn.*, 26, 2689–2692, (2013).
855. Takayoshi Katase, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Magnetic scattering and electron pair breaking by rare-earth-ion substitution in BaFe_2As_2 epitaxial films; *New J. Phys.*, 15, 073019-1- 15, (2013).
856. Katsuhiko Suzuki, Hidetomo Usui, Kazuhiko Kuroki, Soshi Iimura, Yoshiyasu Sato, Satoru Matsuishi, and Hideo Hosono: Robust Spin Fluctuations and $s\pm$ Pairing in the Heavily Electron Doped Iron-Based Superconductors; *J. Phys. Soc. Jpn.*, 82, 083702, (2013).
857. Jiangang Guo, Yanpeng Qi, and Hideo Hosono: Structure and superconductivity in pyrite $\text{Ir}_{0.95-x}\text{Rh}_x\text{Te}_2$: A comparison with analogous selenides; *Phys. Rev. B*, 87, 224504-1 - 4, (2013).
858. Fuji Funabiki, Satoru Matsuishi, and Hideo Hosono: Local structure around rare-earth ions in B_2O_3 glass at high pressure; *J. Appl. Phys.*, 113, 223508-1 - 6, (2013).
859. Koichi Kajihara, Linards Skuja, and Hideo Hosono: Formation and annihilation of intrinsic defects induced by electronic excitation in high-purity crystalline SiO_2 ; *J. Appl. Phys.*, 113, 143511-1 - 4, (2013).
860. Yoshinori Imai, Fuyuki Nabeshima, Daisuke Nakamura, Takayoshi Katase, Hidenori Hiramatsu, Hideo Hosono, and Atsutaka Maeda: Ultralow-Dissipative Conductivity by Dirac Fermions in BaFe_2As_2 ; *J. Phys. Soc. Jpn.*, 82, 043709-1 - 4, (2013).
861. Zewen Xiao, Kay Domen, Toshio Kamiya and Hideo Hosono: Apparent high mobility $\sim 30 \text{ cm}^2/\text{Vs}$ of amorphous In-Ga-Zn-O thin-film transistor and its origin; *J. Ceram. Soc. Jpn.*, 121, 295-298, (2013).
862. Hikaru Sato, Takayoshi Katase, Won Nam Kang, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Anomalous scaling behavior in a mixed-state Hall effect of a cobalt-doped BaFe_2As_2 epitaxial film with a high critical current density over $1 \text{ MA}/\text{cm}^2$; *Phys. Rev. B*, 87, 064504-1 - 7, (2013).
863. Hidenori Hiramatsu, Takayoshi Katase, Toshio Kamiya, and Hideo Hosono: Superconducting Properties and Phase Diagram of Indirectly Electron-Doped $(\text{Sr}_{1-x}\text{La}_x)\text{Fe}_2\text{As}_2$ Epitaxial Films Grown by Pulsed Laser Deposition; *IEEE Trans. Appl. Supercond.*, 23, 7300405, (2013).
864. Kenji Nomura, Toshio Kamiya, and Hideo Hosono: Effects of Diffusion of Hydrogen and Oxygen on Electrical Properties of Amorphous Oxide Semiconductor, In-Ga-Zn-O ; *ECS J. Solid State Sci. Technol.*, 2, 5-8, (2013).
865. Kosuke Matsuzaki, Vlado K Lazarov, Leonardo Lari, Hideo Hosono, and Tomofumi Susaki: $\text{Fe}_3\text{O}_4(111)$ thin films with bulk-like properties: growth and atomic characterization; *J. Phys. D: Appl. Phys.*, 46, 022001-1 - 5, (2013).
866. Taku Hanna, Satoru Matusishi, Katsuaki Kodama, Toshiya Otomo, Shin-ichi Shamoto, and Hideo Hosono: From antiferromagnetic insulator to ferromagnetic metal: Effects of hydrogen substitution in LaMnAsO ; *Phys. Rev. B*, 87, 020401(R)-1 - 5, (2013).

2014

867. Yasunori Inoue, Masaaki Kitano, Sung-Wng Kim, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Highly Dispersed Ru on Electride

- [Ca₂₄Al₂₈O₆₄]⁴⁺(e⁻)₄ as a Catalyst for Ammonia Synthesis; *ACS Catal.*, 4, 674-680(2014).
868. Hechang Lei, Wei-Guo Yin, Zhicheng Zhong, and Hideo Hosono: Structural, magnetic, and electrical properties of Li₂Ir_{1-x}Ru_xO₃; *Phys. Rev. B*, 89, 020409(R)-1 - 5(2014).
869. Yanpeng Qi, Jiangang Guo, Hechang Lei, Zewen Xiao, Toshio Kamiya, and Hideo Hosono: Superconductivity in noncentrosymmetric ternary equiatomic pnictides LaMP (M = Ir and Rh; P = P and As); *Phys. Rev. B*, 89, 024517-1 - 6 (2014).
870. Navaratnarajah Kuganathan, Hideo Hosono, Alexander L. Shluger, and Peter V. Sushko, Enhanced N₂ Dissociation on Ru-Loaded Inorganic Electride, *J. Amer. Chem. Soc.*, 136 (6), 2216–2219(2014).
871. ★Masatoshi Hiraishi, Soshi Iimura, Kenji M. Kojima, Jun-ichi Yamaura, Haruhiro Hiraka, Kazutaka Ikeda, Ping Miao, Yoshihisa Ishikawa, Shuki Torii, Masanori Miyazaki, Ichihiko Yamauchi, Akihiro Koda, Ryosuke Kadono, Reiji Kumai, Takashi Kamiyama, Toshiya Otomo, Youichi Murakami, Satoru Matuishi, Hideo Hosono, Bipartite magnetic parent phases in the iron-oxypnictide superconductor, *Nature Physics*, 10, 300-303, (2014).
872. Katsuro Hayashi, Peter V. Sushko, Yasuhiro Hashimoto, Alexander L. Shluger, and Hideo Hosono: Hydride ions in oxide hosts hidden by hydroxide ions; *Nat. Commun.*, 5, 3515-1 - 8, (2014).
873. Takayoshi Katase, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Electric double-layer transistor using layered iron selenide Mott insulator TlFe_{1.6}Se₂; *Proc. Natl. Acad. Sci. USA*, 111, 3979-3983, (2014).
874. Satoru Matsuishi, Takuya Maruyama, Soshi Iimura, and Hideo Hosono: Controlling factors of T_c dome structure in 1111-type iron arsenide superconductors; *Phys. Rev. B*, 89, 094510-1 - 5, (2014).
875. Sehoon Jeong, Satoru Matsuishi, Kimoon Lee, Yoshitake Toda, Sung Wng Kim, and Hideo Hosono: Superconductivity of Ca₂InN with a layered structure embedding an anionic indium chain array; *Supercond. Sci. Technol.*, 27, 055005-1 - 6, (2014).
876. Ye Ji Kim, Sun Min Kim, Hideo Hosono, Jung Woon Yang, and Sung Wng Kim: The scalable pinacol coupling reaction utilizing the inorganic electride [Ca₂N]⁺ e⁻ as an electron donor; *Chem. Commun.*, 50, 4791-4794, (2014)
877. Fan-Yong Ran, Zewen Xiao, Hidenori Hiramatsu, Hideo Hosono and Toshio Kamiya: Growth of high-quality SnS epitaxial films by H₂S flow pulsed laser deposition ; *Appl. Phys. Lett.*, 104, 072106-1 - 4, (2014).
878. Koichi Kajihara, Linards Skuja, and Hideo Hosono: Diffusion and Reactions of Photoinduced Interstitial Oxygen Atoms in Amorphous SiO₂ Impregnated with ¹⁸O-Labeled Interstitial Oxygen Molecules; *J. Phys. Chem. C*, 118, 4282-4286, (2014)
879. Yoshinori Muraba, Satoru Matsuishi, and Hideo Hosono: La-Substituted CaFeAsH Superconductor with T_c = 47 K; *J. Phys. Soc. Jpn. (Editors' Choice)*, 83, 033705-1 - 4, (2014).
880. Yoshinori Muraba, Satoru Matsuishi, and Hideo Hosono: Enhancing the three-dimensional electronic structure in 1111-type iron arsenide superconductors by H substitution; *Phys. Rev. B*, 89, 094501-1 - 6, (2014).
881. N. Fujiwara, S. Iimura, S. Matsuishi, H. Hosono, Y. Yamakawa, and H. Kontani: NMR Study on a Pnictide Superconductor LaFeAsO_{1-x}H_x in a H-Overdoped Regime: Revival of Antiferromagnetic Fluctuations; *J. Supercond. Nov. Magn.*, 27, 933-936, (2014).

882. Hiroyuki Yamaguchi, Hidenori Hiramatsu, Hideo Hosono, and Teruyasu Mizoguchi: The atomic structure, band gap, and electrostatic potential at the (112)[1-10] twin grain boundary of CuInSe₂; *Appl. Phys. Lett.*, 104, 153904-1 -5, (2014).
883. Hidenori Hiramatsu, Hikaru Sato, Takayoshi Katase, Toshio Kamiya, and Hideo Hosono: Critical factor for epitaxial growth of cobalt-doped BaFe₂As₂ films by pulsed laser deposition; *Appl. Phys. Lett.*, 104, 172602-1 - 5, (2014).
884. Hikaru Sato, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: High critical-current density with less anisotropy in BaFe₂(As,P)₂ epitaxial thin films: Effect of intentionally grown c-axis vortex-pinning centers; *Appl. Phys. Lett.*, 104, 182603-1 - 5, (2014).
885. D. Gilks, L. Lari, K. Matsuzaki, H. Hosono, T. Susaki, and V. K. Lazarov: Structural study of Fe₃O₄(111) thin films with bulk like magnetic and magnetotransport behaviour; *J. Appl. Phys.*, 115, 17C107, (2014).
886. Joonho Bang, Satoru Matsuishi, Haruhiro Hiraka, Fumika Fujisaki, Toshiya Otomo, Sachiko Maki, Jun-ichi Yamaura, Reiji Kumai, Youichi Murakami, and Hideo Hosono: Hydrogen Ordering and New Polymorph of Layered Perovskite Oxyhydrides: Sr₂VO₄-xHx; *J. Am. Chem. Soc. (Communication)*, 136, 7221-7224, (2014).
887. Zewen Xiao, Fan-Yong Ran, Hidenori Hiramatsu, Satoru Matsuishi, Hideo Hosono, Toshio Kamiya: Epitaxial growth and electronic structure of a layered zinc pnictide semiconductor, β -BaZn₂As₂; *Thin Solid Films*, 559, 100-104, (2014).
888. Katsumi Abe, Ayumu Sato, Kenji Takahashi, Hideya Kumomi, Toshio Kamiya, Hideo Hosono: Mobility- and temperature-dependent device model for amorphous In-Ga-Zn-O thin-film transistors; *Thin Solid Films*, 559, 40-43, (2014).
889. Junghwan Kim, Hidenori Hiramatsu, Hideo Hosono, Toshio Kamiya: Fabrication and characterization of ZnS:(Cu,Al) thin film phosphors on glass substrates by pulsed laser deposition Original Research Article; *Thin Solid Films*, 559, 18-22, (2014).
890. Hechang Lei, Jun-ichi Yamaura, Jiangang Guo, Yanpeng Qi, Yoshitake Toda, and Hideo Hosono: Layered Compounds BaM₂Ge₄Ch₆ (M = Rh, Ir and Ch = S, Se) with Pyrite-Type Building Blocks and Ge-Ch Heteromolecule-Like Anions; *Inorg. Chem.*, 53, 5684-5691, (2014).
891. Jiang Li, Shinsuke Inagi, Toshio Fuchigami, Hideo Hosono, Setsuro Ito: Selective monocarboxylation of olefins at 12CaO·7Al₂O₃ electride cathode; *Electrochemistry Communications*, 44, 45-48, (2014).
892. Younghun Kim, Jungeun Kim, Akihiko Fujiwara, Hiroki Taniguchi, Sungwng Kim, Hiroshi Tanaka, Kunihiisa Sugimoto, Kenichi Kato, Mitsuru Itoh, Hideo Hosono, and Masaki Takata: Hierarchical dielectric orders in layered ferroelectrics Bi₂SiO₅; *International Union of Crystallography Journal (IUCrJ)*, 1, 160-164, (2014).
893. G. Lamura, T. Shiroka, P. Bonfa, S. Sanna, R. De Renzi, F. Caglieris, M. R. Cimberle, S. Iimura, H. Hosono, and M. Putti: Crossover between magnetism and superconductivity in LaFeAsO with low H-doping level; *J. Phys.: Condens. Matter*, 26, 295701, (2014).
894. Katsuhiko Suzuki, Hidetomo Usui, Soshi Iimura, Yoshiyasu Sato, Satoru Matsuishi, Hideo Hosono, and Kazuhiko Kuroki: Model of the Electronic Structure of Electron-Doped Iron-Based Superconductors: Evidence for Enhanced Spin Fluctuations by Diagonal Electron Hopping; *Phys. Rev. Lett.*, 113, 027002, (2014).

895. Hidenori Hiramatsu, Shogo Matsuda, Hikaru Sato, Toshio Kamiya, and Hideo Hosono: Growth of c-Axis-Oriented Superconducting KFe₂As₂ Thin Films; *ACS Appl. Mater. Interfaces*, DOI: 10.1021/am5036016, (2014).
896. Fuji Funabiki, Koichi Kajihara, Ken Kaneko, Kiyoshi Kanamura, and Hideo Hosono: Characteristic Coordination Structure around Nd Ions in Sol-Gel-Derived Nd-Al-Codoped Silica Glasses; *J. Phys. Chem. B*, 118, 8792-8797, (2014).
897. Kay Domen, Takaya Miyase, Katsumi Abe, Hideo Hosono, and Toshio Kamiya: Positive Gate Bias Instability Induced by Diffusion of Neutral Hydrogen in Amorphous In-Ga-Zn-O Thin-Film Transistor; *IEEE Electron Dev. Lett.*, 35, 832-834, (2014).
898. Po-Ching Hsu, Chung-Chih Wu, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Film Texture, Hole Transport and Field-Effect Mobility in Polycrystalline SnO Thin Films on Glass; *ECS Journal of Solid State Science and Technology*, 3, Q3040-Q3044, (2014).
899. Tomofumi Susaki, Nobuhiro Shigaki, Kosuke Matsuzaki, and Hideo Hosono: Work function modulation in MgO/Nb:SrTiO₃ by utilizing highly nonequilibrium thin-film growth; *Phys. Rev. B*, 90, 035453-1 - 6, (2014).
900. Takeshi Inoshita, Sehoon Jeong, Noriaki Hamada, and Hideo Hosono: Exploration for Two-Dimensional Electrides via Database Screening and Ab Initio Calculation; *Phys. Rev. X*, 4, 031023, (2014).
901. Satoru Matsuishi, Hiroki Muramatsu, and Hideo Hosono: Photochemistry of Nanocage Ca₁₂Al₁₄-xSi_xO₃₂Cl₂+x (x = 0.0 and 3.4) Crystals; *Chem. Lett.*, 43, 1371-1373, (2014).
902. Jiangang Guo, Hechang Lei, Fumitaka Hayashi, and Hideo Hosono: Superconductivity and phase instability of NH₃-free Na-intercalated FeSe_{1-z}Sz; *Nat. Commun.*, 5, 4756, (2014).
903. Fumitaka Hayashi, Yudai Tomota, Masaaki Kitano, Yoshitake Toda, Toshiharu Yokoyama, and Hideo Hosono: NH₂⁻ Dianion Entrapped in a Nanoporous 12CaO·7Al₂O₃Crystal by Ammonothermal Treatment: Reaction Pathways, Dynamics, and Chemical Stability; *J. Am. Chem. Soc.*, 136, 11698-11706, (2014).
904. Takaya Miyase, Ken Watanabe, Isao Sakaguchi, Naoki Ohashi, Kay Domen, Kenji Nomura, Hidenori Hiramatsu, Hideya Kumomi, Hideo Hosono and Toshio Kamiya: Roles of Hydrogen in Amorphous Oxide Semiconductor In-Ga-Zn-O: Comparison of Conventional and Ultra-High-Vacuum Sputtering; *ECS J. Solid State Sci. Technol.*, 3, Q3085-Q3090, (2014).
905. Hayashi, Fumitaka, Kitano, Masaaki, Yokoyama, Toshiharu, Hara, Michikazu, Hosono, Hideo: Surface Treatment for Conductive 12CaO center dot 7Al(2)O(3) Electride Powder by Rapid Thermal Annealing Processing and Its Application to Ammonia Synthesis; *Chemcatchem*, 6, 1317-1723(2014)
906. Kazuo Yamada, Kenji Nomura, Katsumi Abe, Satoshi Takeda, and Hideo Hosono: Examination of the ambient effects on the stability of amorphous indium-gallium-zinc oxide thin film transistors using a laser-glass-sealing technology; *Appl. Phys. Lett.*, 105, 133503, (2014).
907. Tomofumi Tada, Seiji Takemoto, Satoru Matsuishi, and Hideo Hosono: High-Throughput ab Initio Screening for Two-Dimensional Electride Materials; *Inorg. Chem.*, 53, 10347-10358, (2014).
908. Zewen Xiao, Hidenori Hiramatsu, Shigenori Ueda, Yoshitake Toda, Fan-Yong Ran, Jiangang Guo, Hechang Lei, Satoru Matsuishi, Hideo Hosono, and Toshio

- Kamiya: Narrow Bandgap in β -BaZn₂As₂ and Its Chemical Origins; *J. Am. Chem. Soc.*, 136, 14959-14965, (2014).
909. Junichi Ishida, Soshi Iimura, Satoru Matsuishi, and Hideo Hosono: Comparison of impurity effect between two Tc domes in LaFeAsO_{1-x}H_x; *J. Phys.: Condens. Matter*, 26, 435702, (2014).
 910. K. Domen, T. Miyase, K. Abe, H. Hosono, T. Kamiya: Positive-Bias Stress Test on Amorphous In-Ga-Zn-O Thin Film Transistor: Annealing-Temperature Dependence ; *J. Displ. Technol.*, 10, 975-978, (2014).
 911. Y. Hanyu, K. Abe, K. Domen, K. Nomura, H. Hiramatsu, H. Kumomi, H. Hosono, T. Kamiya: Effects of High-Temperature Annealing on Operation Characteristics of a-In-Ga-Zn-O TFTs; *J. Displ. Technol.*, 10, 979-983, (2014).
 912. Xiao Zhang, Zewen Xiao, Hechang Lei, Yoshitake Toda, Satoru Matsuishi, Toshio Kamiya, Shigenori Ueda, and Hideo Hosono: Two-Dimensional Transition-Metal Electride Y₂C; *Chem. Mater.*, 26, 6638-6643, (2014).
 913. Kosuke Matsuzaki, Tetsushi Okazaki, Yih-Shu Lee, Hideo Hosono, and Tomofumi Susaki: Controlled bipolar doping in Cu₃N (100) thin films; *Appl. Phys. Lett.*, 105, 222102, (2014).
 914. Yingchao Dong, Katsuro Hayashi, Hiroki Nozoe, Yutaka Shinoda, and Hideo Hosono: Chloride-Ion-Stabilized Strontium Mayenite: Expansion of Versatile Material Family; *J. Am. Ceram. Soc.*, 97, 4037-4044, (2014).
 915. Hechang Lei, Jiangang Guo, Fumitaka Hayashi, and Hideo Hosono: Emergence of magnetism and controlling factors of superconductivity in Li/Na-ammonia cointercalated FeSe_{1-z}Te_z; *Phys. Rev. B*, 90, 214508,
 916. Hiroshi Mizoguchi, SangWon Park, Haruhiro Hiraka, Kazutaka Ikeda, Toshiya Otomo, and Hideo Hosono: New LaMAsH_x (M = Co, Ni, or Cu) Arsenides with Covalent M-H Chains; *J. Am. Chem. Soc.*, 136, 17390-17393, (2014).
 917. Yue Wang, Hikaru Sato, Yoshitake Toda, Shigenori Ueda, Hidenori Hiramatsu, and Hideo Hosono: SnAs with the NaCl-type Structure: Type-I Superconductivity and Single Valence State of Sn; *Chem. Mater.*, 26, 7209-7213, (2014).

2015

918. Yuki Kawashima, Koichi Ichimura, Kazuhiro Katono, Tohru Kurosawa, Migaku Oda, Satoshi Tanda, Yoichi Kamihara, Hideo Hosono: STM/STS study of the superconducting gap in SmFeAsO_{1-x}F_x; *Solid State Commun.*, 204, 33-36, (2015).
919. H. Takahashi, H. Soeda, M. Nukii, C. Kawashima, T. Nakanishi, S. Iimura, Y. Muraba, S. Matsuishi, H. Hosono: Superconductivity at 52 K in hydrogen-substituted LaFeAsO_{1-x}H_x under high pressure; *Sci. Rep.*, 5, 7829, (2015).
920. Min Liao, Zewen Xiao, Fan-Yong Ran, Hideya Kumomi, Toshio Kamiya and Hideo Hosono: Effects of Pb Doping on Hole Transport Properties and Thin-Film Transistor Characteristics of SnO Thin Films; *ECS J. Solid State Sci. Technol.*, 4, Q26-Q30, (2015).
921. Hikaru Sato, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Vortex Pinning Properties of Phosphorous-Doped BaFe₂As₂ Epitaxial Films: Comparison between (La,Sr)(Al,Ta)O₃ and MgO Substrates; *IEEE Trans. Appl. Supercond.*, 25, 7500305, (2015).
922. Hideo Hosono, Sung-Wng Kim, Satoru Matsuishi, Shigeki Tanaka, Atsushi Miyake, Tomoko Kagayama, and Katsuya Shimizu: Superconductivity in

- room-temperature stable electride and high-pressure phases of alkali metals; *Phil. Trans. R. Soc. A*, 373, 20140450, (2015).
923. R. Sakurai, N. Fujiwara, N. Kawaguchi, Y. Yamakawa, H. Kontani, S. Iimura, S. Matsuishi, and H. Hosono : Quantum critical behavior in heavily doped $\text{LaFeAsO}_{1-x}\text{Hx}$ pnictide superconductors analyzed using nuclear magnetic resonance; *Phys. Rev. B*, 91, 064509, (2015).
 924. Seiji Inaba, Hideo Hosono, and Setsuro Ito: Entropic shrinkage of an oxide glass; *Nat. Mater.*, 14, 312-317, (2015).
 925. Sehoon Jeong, Satoru Matsuishi, Joonho Bang and Hideo Hosono: Crystal structure and physical properties of new transition metal based pnictide compounds: LaTM_2AsN (TM = Fe, Co, and Ni); *APL Materials*, 3, 041509, (2015).
 926. Hiroshi Mizoguchi, SangWon Park, Haruhiro Hiraka, Kazutaka Ikeda, Toshiya Otomo, and Hideo Hosono: An Anti CuO_2 -type Metal Hydride Square Net Structure in $\text{Ln}_2\text{M}_2\text{As}_2\text{Hx}$ (Ln=La or Sm, M=Ti, V, Cr, or Mn); *Angew. Chem. Int. Ed.*, 54, 2932-2935, (2015).
 927. ★ Masaaki Kitano, Shinji Kanbara, Yasunori Inoue, Navaratnarajah Kuganathan, Peter V. Sushko, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Electride support boosts nitrogen dissociation over ruthenium catalyst and shifts the bottleneck in ammonia synthesis; *Nat. Commun.*, 6, 6731, (2015).
 928. Hiroshi Yanagi, Chiyuki Sato, Yota Kimura, Issei Suzuki, Takahisa Omata, Toshio Kamiya, and Hideo Hosono: Widely bandgap tunable amorphous Cd-Ga-O oxide semiconductors exhibiting electron mobilities $\geq 10\text{cm}^2\text{V}^{-1}\text{s}^{-1}$; *Appl. Phys. Lett.*, 106, 082106, (2015).
 929. Fumitaka Hayashi, Hechang Lei, Jiangang Guo, and Hideo Hosono: Modulation Effect of Interlayer Spacing on the Superconductivity of Electron-Doped FeSe-Based Intercalates; *Inorg. Chem.*, 54, 3346-3351, (2015).
 930. Zewen Xiao, Fan-Yong Ran, Hideo Hosono and Toshio Kamiya: Route to n-type doping in SnS; *Appl. Phys. Lett.*, 106, 152103-1 - 4, (2015).
 931. Ye Ji Kim, Sun Min Kim, Eun Jin Cho, Hideo Hosono, Jung Woon Yang, and Sung Wng Kim: Two dimensional inorganic electride-promoted electron transfer efficiency in transfer hydrogenation of alkynes and alkenes; *Chem. Sci.*, 6, 3577-3581, (2015).
 932. Sun Min Kim, Ho Sung Yoo, Hideo Hosono, Jung Woon Yang, and Sung Wng Kim: Chemoselective reduction and oxidation of ketones in water through control of the electron transfer pathway; *Sci. Rep.*, 5, 10366-1 - -9, (2015).
 933. Fan-Yong Ran, Zewen Xiao, Yoshitake Toda, Hidenori Hiramatsu, Hideo Hosono and Toshio Kamiya: n-type conversion of SnS by isovalent ion substitution: Geometrical doping as a new doping route; *Sci. Rep.*, 5, 10428-1 - -8, (2015).
 934. Takatoshi Orui, Johannes Herms, Yuichiro Hanyu, Shigenori Ueda, Ken Watanabe, Isao Sakaguchi, Naoki Ohashi, Hidenori Hiramatsu, Hideya Kumomi, Hideo Hosono, and Toshio Kamiya: Charge Compensation by Excess Oxygen in Amorphous In-Ga-Zn-O Films Deposited by Pulsed Laser Deposition; *J. Disp. Technol.*, 11, 518-522, (2015).
 935. Jakub Grochowski, Yuichiro Hanyu, Katsumi Abe, Jakub Kaczmarek, Jan Dyczewski, Hidenori Hiramatsu, Hideya Kumomi, Hideo Hosono, and Toshio Kamiya: Origin of Lower Film Density and Larger Defect Density in Amorphous In-Ga-Zn-O Deposited at High Total Pressure; *J. Disp. Technol.*, 11, 523-527, (2015).

936. Md Jafar Sharif, Masaaki Kitano, Yasunori Inoue, Yasuhiro Niwa, Hitoshi Abe, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Electron Donation Enhanced CO Oxidation over Ru-Loaded $12\text{CaO} \cdot 7\text{Al}_2\text{O}_3$ Electride Catalyst; *J. Phys. Chem. C*, 119, 11725-11731, (2015).
937. K. Osako, K. Matsuzaki, H. Hosono, G. Yin, D. Atarashi, E. Sakai, T. Susaki, and M. Miyauchi: Examination of interfacial charge transfer in photocatalysis using patterned CuO thin film deposited on TiO_2 ; *APL Materials*, 3, 104409, (2015).]
938. Zewen Xiao, Yuanyuan Zhou, Hideo Hosono and Toshio Kamiya: Intrinsic defects in a photovoltaic perovskite variant Cs_2SnI_6 ; *Phys. Chem. Chem. Phys.*, 17, 18900-18903, (2015).
939. Joonho Bang, Satoru Matsuishi, Sachiko Maki, Jun-ichi Yamaura, Masatoshi Hiraishi, Soshi Takeshita, Ichihiko Yamauchi, Kenji M. Kojima, and Hideo Hosono: Low dimensionalization of magnetic ordering in Sr_2VO_4 by hydride ion substitution; *Phys. Rev. B*, 92, 064414, (2015).
940. Fan-Yong Ran, Masataka Taniguti, Hideo Hosono, and Toshio Kamiya: Analyses of Surface and Interfacial Layers in Polycrystalline Cu_2O Thin-Film Transistors; *J. Displ. Technol.*, 11, 720-724, (2015).
941. Fan-Yong Ran, Hidenori Hiramatsu, Hideo Hosono, Toshio Kamiya and Masataka Taniguti: Detection of dead layers and defects in polycrystalline Cu_2O thin-film transistors by x-ray reflectivity and photoresponse spectroscopy analyses; *J. Vac. Sci. Technol. B*, 33, 051211, (2015).
942. Junghwan KIM, Hidenori HIRAMATSU, Hideo HOSONO and Toshio KAMIYA: Effects of sulfur substitution in amorphous InGaZnO_4 : optical properties and first-principles calculations; *J. Ceram. Soc. Jpn.*, 123, 537-541, (2015).
943. Hao-Chun TANG, Junghwan KIM, Hidenori HIRAMATSU, Hideo HOSONO and Toshio KAMIYA: Fabrication and opto-electrical properties of amorphous $(\text{Zn,B})\text{O}$ thin film by pulsed laser deposition; *J. Ceram. Soc. Jpn.*, 123, 523-526, (2015).
944. Zewen Xiao, Hechang Lei, Xiao Zhang, Yuanyuan Zhou, Hideo Hosono, Toshio Kamiya: Ligand-Hole in $[\text{SnI}_6]$ Unit and Origin of Band Gap in Photovoltaic Perovskite Variant Cs_2SnI_6 ; *Bulletin of the Chemical Society of Japan*, 88, 1250-1255, (2015).
945. Hideo Hosono, Keiichi Tanabe, Eiji Takayama-Muromachi, Hiroshi Kageyama, Shoji Yamanaka, Hiroaki Kumakura, Minoru Nohara, Hidenori Hiramatsu and Satoru Fujitsu: Exploration of new superconductors and functional materials, and fabrication of superconducting tapes and wires of iron pnictides; *Sci. Technol. Adv. Mater.*, 16, 033503-1 - 87, (2015).
946. C. W. Chu, P. C. Canfield, R. C. Dynes, Z. Fisk, B. Batlogg, G. Deutscher, T. H. Geballe, Z. X. Zhao, R. L. Greene, H. Hosono, and M. B. Maple: Epilogue: Superconducting materials past, present and future; *Physica C*, 514, 437-443, (2015).
947. Hideo Hosono and Kazuhiko Kuroki: Iron-based superconductors: Current status of materials and pairing mechanism; *Physica C*, 514, 399-422, (2015).
948. Junjie Wang, Naoto Umezawa, and Hideo Hosono: Mixed Valence Tin Oxides as Novel van der Waals Materials: Theoretical Predictions and Potential Applications; *Adv. Energy Mater.*, 1501190, (2015).
949. Masaki Narisawa, Fuji Funabiki, Akihiro Iwase, Fumihiro Wakai, and Hideo Hosono: Effects of Atmospheric Composition on the Molecular Structure of Synthesized Silicon Oxycarbides; *J. Am. Ceram. Soc.*, 98, 3373-3380, (2015).

950. H. Takahashi, H. Soeda, M. Nukii, C. Kawashima, T. Nakanishi, S. Iimura, Y. Muraba, S. Matsuishi, H. Hosono: Superconductivity at 52 K in hydrogen-substituted $\text{LaFeAsO}_{1-x}\text{H}_x$ under high pressure; *Sci. Rep.*, **5**, 7829, (2015).
951. Shinji Kanbara, Masaaki Kitano, Yasunori Inoue, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Mechanism Switching of Ammonia Synthesis Over Ru-Loaded Electride Catalyst at Metal-Insulator Transition; *J. Am. Chem. Soc.*, **137**, 14517-14524, (2015).
952. Takeshi Inoshita, Noriaki Hamada, and Hideo Hosono: Ferromagnetic instability of interlayer floating electrons in the quasi-two-dimensional electride Y_2C ; *Phys. Rev. B*, **92**, 201109(R), (2015).
953. Takeshi Inoue, Hidenori Hiramatsu, Hideo Hosono, and Toshio Kamiya: Heteroepitaxial growth of SnSe films by pulsed laser deposition using Se-rich targets; *J. Appl. Phys.*, **118**, 205302-1 - 205302-14, (2015).
954. Haochun Tang, Kyohei Ishikawa, Keisuke Ide, Hidenori Hiramatsu, Shigenori Ueda, Naoki Ohashi, Hideya Kumomi, Hideo Hosono, and Toshio Kamiya: Effects of residual hydrogen in sputtering atmosphere on structures and properties of amorphous In-Ga-Zn-O thin films; *J. Appl. Phys.*, **118**, 205703-1-6, (2015).
955. Yoshinori Muraba, Soshi Iimura, Satoru Matsuishi, and Hideo Hosono: Hydrogen-Substituted Superconductors $\text{SmFeAsO}_{1-x}\text{H}_x$ Misidentified As Oxygen-Deficient SmFeAsO_{1-x} ; *Inorg. Chem.*, **54**, 11567-11573, (2015).
956. Yaoqing Zhang, Zewen Xiao, Toshio Kamiya, and Hideo Hosono: Electron Confinement in Channel Spaces for One-Dimensional Electride; *J. Phys. Chem. Lett.*, **6**, 4966-4971, (2015)

2016

957. Junghwan Kim, Norihiko Miyokawa, Keisuke Ide, Yoshitake Toda, Hidenori Hiramatsu, Hideo Hosono, and Toshio Kamiya: Room-temperature fabrication of light-emitting thin films based on amorphous oxide semiconductor; *AIP Advances*, **6**, 015106, (2016).
958. Hechang Lei, Kai Liu, Jun-ichi Yamaura, Sachiko Maki, Youichi Murakami, Zhong-Yi Lu, and Hideo Hosono: Strong charge density wave fluctuation and sliding state in PdTeI with quasi-one-dimensional PdTe chains; *Phys. Rev. B*, **93**, 121101(R), (2016).
959. Katsuro Hayashi and Hideo Hosono: Green apatites: hydride ions, electrons and their interconversion in the crystallographic channel; *Phys. Chem. Chem. Phys.*, **18**, 8186-8195, (2016).
960. M. Hiraishi, K. M. Kojima, M. Miyazaki, I. Yamauchi, H. Okabe, A. Koda, R. Kadono, S. Matsuishi, and H. Hosono: Cage electron-hydroxyl complex state as electron donor in mayenite; *Phys. Rev. B*, **93**, 121201(R), (2016).
961. X. W. Wang, R. Buividas, F. Funabiki, P. R. Stoddart, H. Hosono, and S. Juodkazis: Analysis of defects patterned by femtosecond pulses inside KBr and SiO_2 glass; *Appl. Phys. A*, **122**, 194, (2016).
962. Fan-Yong Ran, Zewen Xiao, Hidenori Hiramatsu, Keisuke Ide, Hideo Hosono, and Toshio Kamiya: SnS thin films prepared by H_2S -free process and its p-type thin film transistor; *AIP Adv.*, **6**, 015112-1 - 6, (2016).
963. Yangfan Lu, Jiang Li, Tomofumi Tada, Yoshitake Toda, Shigenori Ueda, Toshiharu Yokoyama, Masaaki Kitano, and Hideo Hosono: Water Durable Electride

- Y₅Si₃: Electronic Structure and Catalytic Activity for Ammonia Synthesis; *J. Am. Chem. Soc. (Commun.)*, 138, 3970-3973, (2016).
964. Hitoshi Abe, Yasuhiro Niwa, Masao Kimura, Youichi Murakami, Toshiharu Yokoyama, and Hideo Hosono: Gritty Surface Sample Holder Invented To Obtain Correct X-ray Absorption Fine Structure Spectra for Concentrated Materials by Fluorescence Yield; *Anal. Chem.*, 88, 3455-3458, (2016).
965. Taisuke Hatakeyama, Hikaru Sato, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Novel solid-phase epitaxy for multi-component materials with extremely high vapor pressure elements: An application to KFe₂As₂; *Appl. Phys. Express*, 9, 055505, (2016).
966. Takeshi Inoue, Hidenori Hiramatsu, Hideo Hosono, and Toshio Kamiya: Nonequilibrium Rock-Salt-Type Pb-Doped SnSe with High Carrier Mobilities ≈ 300 cm²/(Vs); *Chem. Mater.*, 28, 2278-2286, (2016).
967. Kota Hanzawa, Hikaru Sato, Hidenori Hiramatsu, Toshio Kamiya, and Hideo Hosono: Electric field-induced superconducting transition of insulating FeSe thin film at 35 K; *Proc. Natl. Acad. Sci. USA*, 113, 3986-3990, (2016).
968. Hiroshi Yanagi, Yuki Iguchi, Taiki Sugiyama, Toshio Kamiya and Hideo Hosono: N-type conduction in SnS by anion substitution with Cl; *Appl. Phys. Express*, 9, 051201-1 - 3, (2016).
969. Min Liao, Seiji Takemoto, Zewen Xiao, Yoshitake Toda, Tomofumi Tada, Shigenori Ueda, Toshio Kamiya, and Hideo Hosono: Difficulty of carrier generation in orthorhombic PbO; *J. Appl. Phys.*, 119, 165701-1 - 7, (2016).
970. Christian A. Niedermeier, Sneha Rhode, Sarah Fearn, Keisuke Ide, Michelle A. Moram, Hidenori Hiramatsu, Hideo Hosono and Toshio Kamiya: Solid phase epitaxial growth of high mobility La:BaSnO₃ thin films co-doped with interstitial hydrogen; *Appl. Phys. Lett.*, 108, 172101-1 -5, (2016).
971. Hitoshi Abe, Yasuhiro Niwa, Masaaki Kitano, Yasunori Inoue, Youichi Murakami, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: High Oxidation Tolerance of Ru Nanoparticles on 12CaO·7Al₂O₃ Electride; *J. Phys. Chem. C*, 120, 8711-8716, (2016).
972. S. K. Mishra, R. Mittal, P. S. R. Krishna, P. U. Sastry, S. L. Chaplot, P. D. Babu, S. Matsuishi and H. Hosono: Thermal expansion behaviour and phase stability of AFe₂As₂ (A=Ca, Sr and Eu) using powder diffraction technique; *Pramana -J. Phys.*, 86, 1369-1381, (2016).
973. Yoyo Hinuma, Taisuke Hatakeyama, Yu Kumagai, Lee A. Burton, Hikaru Sato, Yoshinori Muraba, Soshi Iimura, Hidenori Hiramatsu, Isao Tanaka, Hideo Hosono, Fumiyasu Oba: Discovery of earth-abundant nitride semiconductors by computational screening and high-pressure synthesis; *Nat. Commun.*, 7, 11962-1 - 10, (2016).
974. Masaaki Kitano, Yasunori Inoue, Hiroki Ishikawa, Kyosuke Yamagata, Takuya Nakao, Tomofumi Tada, Satoru Matsuishi, Toshiharu Yokoyama, Michikazu Hara, and Hideo Hosono: Essential role of hydride ion in ruthenium-based ammonia synthesis catalysts; *Chem. Sci.*, 7, 4036-4043, (2016).
975. Junghwan KIM, Norihiko MIYOKAWA, Keisuke IDE, Hidenori HIRAMATSU, Hideo HOSONO and Toshio KAMIYA: Transparent amorphous oxide semiconductor thin film phosphor, In-Mg-O:Eu; *J. Cerm. Soc. Jpn.*, 124, 532-535, (2016).

976. Junghwan Kim, Norihiko Miyokawa, Takumi Sekiya, Keisuke Ide, Yoshitake Toda, Hidenori Hiramatsu, Hideo Hosono, Toshio Kamiya: Ultrawide band gap amorphous oxide semiconductor, Ga–Zn–O; *Thin Solid Films*, (2016).
977. ★Soshi Iimura, Satoru Matsuishi, and Hideo Hosono: Heavy electron doping induced antiferromagnetic phase as the parent for the iron oxypnictide superconductor LaFeAsO_{1-x}Hx; *Phys. Rev. B*, 94, 024512, (2016).
978. Xiao Zhang, Satoru Matsuishi, and Hideo Hosono: Critical behavior and magnetocaloric effect in layered structure Tb₂C; *J. Phys. D: Appl. Phys.*, 49, 335002, (2016).
979. Silvia Haindl, Sebastian Molatta, Hidenori Hiramatsu, and Hideo Hosono: Recent progress in pulsed laser deposition of iron based superconductors; *J. Phys. D: Appl. Phys.*, 49, 345301, (2016).
980. Haochun Tang, Keisuke Ide, Hidenori Hiramatsu, Shigenori Ueda, Naoki Ohashi, Hideya Kumomi, Hideo Hosono, Toshio Kamiya: Effects of thermal annealing on elimination of deep defects in amorphous In–Ga–Zn–O thin-film transistors; *Thin Solid Films*, 614, 73-78, (2016).
981. Tian-Nan Ye, Jiang Li, Masaaki Kitano, Masato Sasase, and Hideo Hosono: Electronic interactions between a stable electride and a nano-alloy control the chemoselective reduction reaction; *Chem. Sci.*, 7, 5969-5975, (2016).
982. ★Lewis.E.Johnson, Peter Sushko, Yudai Tomota, and Hideo Hosono, Electron Anions and Glass Transitoins, *Proc.Nat.Acad.Sci. USA*, in Press.

4. Representative English Books

1. H.Hosono and M.Hirano, Function Cultivation in Transparent Oxides Utilizing Natural and Artificial Nanostretutures, in Nanomaterials, Edited by Hosono, Mishima, Takezoe and Mackenzie, Elsevier (2006)
2. D.Ginley, H.Hosono, and D.Paine (edited), Handbook of Transparent Conductors, Springer (2010).
3. H.Hosono, Transparent Oxide Semiconductors ; Fundamentals and Recent Progress, in Transparent Electronics, Edited by Facchetti and Marks, pp.31-60,Wiley (2010)
4. Nang Lin Wang, Hideo Hosono, Penchang Dai: Iron-based Superconductors - Materials, Properties and Mechanism; (*Pan Stanford Publishing, Print ISBN: 9789814303224*), 1-562, (2013).
5. H.Hosono, Chap.1. Introduction:Discovery and Current Status, Iron-Based Superconductivity, P.D.Johnson, G.Xu, and W-G.Yin Edited Springer (2015).

5. Patents

Registered (international) 99

Pending (International) 69

Registered (domestic) 90