Curriculum Vitae

Name: Hyung-Ho Park (male)
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Ph.D. (Jul., 1988): Bordeaux I Univ., France; Material Science

Jan., 1997 ~ Dec., 1998: Committee member of Editorial board of Korean Ceramic Society
Dec., 1999: Honor of the best professor of Engineering College of Yonsei Univ.
Apr., 2000 ~: Committee member of the Korean Crystal Society
Jan., 2003 ~ Dec,. 2009: Editorial board member of the Korean Ceramic Society
Jan., 2005 ~ Jan., 2011: Editorial board member of the Materials Research Society of Korea
2010 ~: The Marquis Who's Who in the World

Aug., 1988 ~ Oct. 1989: CNRS (National Scientific Research Center), Bordeaux, France; Post-Doc.
Nov., 1989 ~ Feb., 1995: ETRI (Electronic Telecommunication Research Institute), Korea; Senior Researcher
Mar., 1995 ~ present: Dept. of Material Science & Engineering, Yonsei Univ. ; Professor
Mar., 2001 ~ Feb., 2002: Simon Fraser University, Burnaby, BC, Canada; visiting Professor
Sep., 2009 ~ Aug., 2010: University of Oregon, Eugene, OR, USA; courtesy Professor

Research Fields

1. Nano-hybrid thin films – Polymer base: PLED, Organic conductor
   – Inorganic base : TCO, Inorganic-EL, Quantum dot
2. Photochemical / E-beam induced metal-organic deposition: direct patterning of functional films – MEMS, SoC
3. Ordered mesoporous thin films: Low-k, IR sensor, Thermal insulator, Thermoelectrics
4. CMR(Colossal Magnetroresistive) Mn-oxide : Infrared Sensor, ReRAM
5. Ferroelectric films on Si : Sensor, Ferro-Gate, FeRAM

List of Research Activities and Journal Papers

Committee/Editor activities in International conferences/Journals

1) Sep, 2001: International Seminar on Semiconductor Surface Passivation(SSP), Poland, International Scientific Committee Member
2) Sep, 2003: International Seminar on Semiconductor Surface Passivation(SSP), Poland, International Scientific Committee Member
3) Apr, 2004: International Symposium on Integrated Ferroelectrics(ISIF), Korea, Local

Arrangement Committee Member
4) Jun, 2004: The 12th International Conference on Solid Films and Surfaces, Korea, International Advisory Committee Member
5) Sep, 2005: International Seminar on Semiconductor Surface Passivation(SSP), Poland, International Scientific Committee Member
6) Sep, 2007: International Seminar on Semiconductor Surface Passivation(SSP), Poland, International Scientific Committee Member
7) Nov, 2007: The international conference of the Korean Ceramic Society for 50th Anniversary, Technical Committee Member
8) Nov, 2008: The 25th Korean-Japan International Seminar on Ceramics, Organizing Committee member
9) Nov, 2009: International Workshop on Piezoelectric Materials and Applications in Actuators & International Symposium on Electroceramics 2009, Korea, Publication Committee member
10) Dec, 2009: TACT 2009 International Thin Films Conference, Taiwan, International Advisory Committee member
11) Jul, 2010: Developments in Materials Processes & Applications of Emerging Technologies, MPA Meeting, Portugal, International Scientific Committee
12) Jul, 2011: Developments in Materials Processes & Applications of Emerging Technologies, MPA Meeting, Portugal, International Scientific Committee
13) Nov, 2011: TACT 2009 International Thin Films Conference, Taiwan, Symposium Chair Person, International Advisory Committee member
14) 2008~2009: Editorial board member of Electronic Materials Letters(SCIE)
15) 2010: Guest Editor of Korean Journal of Applied Physics(SCI)
16) 2011~2012: Guest Editor of Thin Solid Films(SCI)
17) 2011~2012: Guest Editor of Surface Coatings & Technology(SCI)
18) 2012~: Editorial Board Member of International Journal of Material and Mechanical Engineering(IJMME)
19) 2012~: Editorial Board Member of Journal of Materials
20) 2012~2013: Lead Guest Editor of Journal of Nanomaterials(SCIE)
21) May, 2012: Program Committee of Progress in Applied Surface, Interface and Thin Film Science 2012
22) Aug, 2012: Organizing Committee Member of International Union of Materials Research Society-International Conference in Asia 2012 (IUMRS-ICA 2012)
23) 2012~2013: International Scientific Committee of Conference on Materials, Processes and Application of Emerging Technologies
24) 2013~: International Scientific Committee of International Congress on Materials and Renewable Energy
25) 2013~: Editors of International Journal of Innovations in Electronic Engineering and System
26) 2013~: Editorial board memeber of American Journal of Macromolecular Science
27) 2014~: Lead Guest Editor of Journal of Nanomaterials(SCIE)
28) 2014~: Chief Editor of Frontier Materials: Thin Solid Films

Invited talks in International conferences

1) "Rare-earth gate oxides for GaAs MOSFET application", International Seminar on Semiconductor Surface Passivation, 2005.09.10~2005.09.13, Poland
2) "Improvement of thermal detecting property of microbolometer by using mesoporous TiO_2", The International Conference on Electrical Engineering, 2007.07.08~2007.07.12, Hong Kong
3) "Electrical properties of transition metal doped ZnO films", The 24th International Japan-Korea Seminar on Ceramic, 2007.11.20~2007.11.22, Japan
4) "Ferroelectric properties of direct patternable ferroelectric thin films formed by

photochemical metal-organic deposition", The The 25th International Korea-Japan Seminar on Ceramic, 2008.11.19~2008.11.21, Korea

5) "Improvement in thermal sensibility of micro infrared sensor: applications of mesoporous oxides and Mn-based CMR materials", Joint Symposium of International workshop on Piezoelectric materials and applications in actuators & International symposium on Electroceramics, 2009.11.8~2009.11.11, Korea
6) "A study on the properties of nanoparticles incorporated PEDOT:PSS conducting polymer hybrid film", TACT 2009 International Thin Films Conference, 2009.12.14~2009.12.16, Taiwan
7) "Incorporation of metal dopants and/or metal nanoparticles in ZnO thin films by chemical solution deposition", The 7th Asian Meeting on Ferroelectricity and the 7th Asian Meeting on Electroceramics, 2010.06.28~2010.07.01, Korea
8) "Nanoporous ceramic thin films: preparation, characterization, and application", International Conference on the Advancement of Materials and Nanotechnology 2010 (ICAMN II 2010), 2010.11.29~2010.12.01, Malaysia, Keynote Speaker
9) "Structure of Mesoporous Al_2O_3 Thin Film Obtained by Surfactant Templating", IEEE-Nano 2011, 2011.08.15~2011.08.18, Portland, USA
10) "Mesoporous Ceramic Thin Films: Preparation, Characterization and Application", TACT 2011 International Thin Films Conference, 2011.11.21~201.11.24, Taiwan
11) "Mesoporous Thin Films: Preparation, Characterization and Application", 2012 Asian Pacific Conference on Energy, Environment and Sustainable Development (APEESD 2012), 2012.11.12~2012.11.13, Malaysia, Keynote Speaker
12) "Mesoporous Structure for Energy Materials: Preparation, Characterization and Application", 2013/2nd International Conference on Energy and Environmental Protection (ICEEP), 2013.04.20~2013.04.21, China, Keynote Speaker
13) "Resistive Switching Characteristics of $R_{1-x}A_xMnO_3$ (R = Pr, La (Gd); A = Ca, Sr) Perovskite Manganite Films for ReRAM", 2013 The 8th International Conference on Thin Film Physics and Applications (TFPA2013), 2013.09.20~2013.09.23, China, Invited Speaker
14) "Ceramic Nano Composites for Thermal Insulators", 2014/3rd International Conference on Energy and Environmental Protection (ICEEP), 2014.04.26~2014.04.28, China, Keynote Speaker

Publications in International SCI(E) Journals

1) H. H. Park, S.-M. Lee, D.-S. Yun, W.-S. Choi, I.-T. Nam, "Solid state amorphization in Ni-Zr multilayers studied by differential scanning calorimetry", Journal of Materials Science Letters 12, p.770-772 (1993)
2) H. H. Park, C. K. Choi, S. J. Yang, J. Y. Ryu, Y. P. Lee, "Formation of Epi-C49 $TiSi_2$/Si (lll) by solid phase epitaxial growth", Journal of the Korean Physical Society 26, p.148-152 (1993)
3) H. H. Park, C. K. Choi, J. Y. Lee, Y. P. Lee, S. M. Jung, K. H. Kim, "Growth mode of Ti-thin films on Si(111) and double heteroepitaxial growth of Epi-Si/epi-C54$TiSi_2$/Si(111)", Journal of the Korean Physical Society 26, p.407-412 (1993)
4) H. H. Park, J. L. Lee, D. Kim, S. J. Maeng, J. Y. Kang, "Improvement of breakdown characteristics of a GaAs power field-effect transistor using $(NH_4)_2S_x$ treatment", J. of Appl. Phys, 73, p.3539-3542 (1993)
5) H. H. Park, C. K. Choi, S. J. Yang, J. Y. Ryu, J. Y. Lee, O. J. Kwon, Y. P. Lee, K. H. Kim, "In situ solid phase epitaxial growth of C49-$TiSi_2$ on Si (111)-7×7 substrate", Applied Physics Letters 63, p.485-487 (1993)
6) H. H. Park, S. R. Kim, J. Y Lee, "A study of the activation behaviour of Zr-Cr-Ni-La metal hydride electrodes in alkaline solution", Journal of Alloys and Compounds 205, p.225-229 (1994)
7) H. H. Park, H. S. Moon, J. S. Lee, S. W. Han, J. W. Park, J. H. Lee, S. K. Yang, "Effect of deposition temperature on dielectric properties of PECVD Ta_2O_5 thin film", Journal of Materials Science 29, p.1545-1548 (1994)
8) H. H. Park, Y. C. Kim, John S, W. J. Lee, "Compositional and structural analysis of aluminum oxide films prepared by plasma-enhanced chemical vapor deposition", Thin Solid Films 237, p.57-65 (1994)
9) H. H. Park, K. H. Kwon, S. H. Lee, B. H. Koak, S. Nahm, H. T. Lee, K. I. Cho, O. J. Kwon, Y. I. Kang, "A study on modified silicon surface after CHF_3/C_2F_6 reactive ion etching", Journal of Materials

Science 76, p.4596-4602 (1994)

10) H. H. Park, J. H. Choy, S. J. Hwang, D. H. Kim, "Evolution of high T_c superconductivity of $Bi_4Sr_{3-x}La_xCa_3Cu_4O_y$ upon iodine intercalation", Synthetic Metals 71, p.1589-1590 (1995)

11) H. H. Park, S. Nahm, K. S. Suh et al., "Investigation on the interfacial reaction of $SiO_2/Ti_{0.1}W_{0.9}$ system", J. of Non-Crystalline Solids 187, p.149-155 (1995)

12) H. H. Park, J. T. Baek, K. I. Cho, H. J. Yoo and S. W. Kang, "Interfacial reaction in the sputter-deposited $SiO_2/Ti_{0.1}W_{0.9}$ antifuse system", J. of Appl. Phys. 78(12), p.7074 (1995)

13) H. H. Park, W. S. Liu, M. A. Nicolet, et al., "The hydridation and nitridation of GeSi oxide annealed in ammonia", J. of Appl. Phys. 78(4), p2631-2634 (1995)

14) H. H. Park, J. H. Choy, S. J. Hwang, D. H. Kim, "Evolution of high T-C superconductivity of $Bi_4Sr_{3-X}La_xCa_3Cu_4O_y$ upon iodine intercalation", Synthetic Metals 71(1-3), p.1589-1590 (1995)

15) H. H. Park, C. S. Hwang, C. Hwang et al., "Fermi-level pinning of Ag on Si(111)-(7x7)", Physical Review B 52(23), p.16325-16328 (1995)

16) H. H. Park, M. H. Jo, C. H. Kim, K. S. Suh, "New ternary fluoride with K_2NiF_4-type structure in $CsF-CaF_2$ system : Cs_2CaF_4", J. of Mat. Sci. Lett. 15, p.1294 (1996)

17) H. H. Park, M. G. Kang, M. H. Jo, C. H. Kim, K. S .Suh, "Angle resolved X-ray photoelectron spectroscopic analysis on the surface of wet-etched copper", Jpn. J. of Appl. Phys. 35, p.3869 (1996)

18) H. H. Park, M. G. Kang, K. S. Suh, J. L. Lee, "Pretreatment of GaAs (001) for sulfur passivation with $(NH_4)_2S_x$", Thin Solid Films 290-291, p.328-333 (1996)

19) H. H. Park, M. G. Kang, K. S. Suh, J. L. Lee, "Sulfidation mechanism of pre-cleaned GaAs surface using $(NH_4)_2S_x$ solution", Mat. Sci. & Eng. B46, p.65 (1996)

20) H. H. Park, I. S. Jin, K. H. Kwon, C. I. Kim, "Passivation role of sulfur and etching behavior in plasma etched TiW using SF_6 and BCl_3 gases", Microelectronic Engineering 33, p.223 (1996)

21) H. H. Park, K. S. Suh, J. L. Lee, C. H. Kim, J. J. Lee and K. S. Nam, "Passivation effect of $(NH_4)_2S_x$ treatment on GaAs surface before photoresist and O_2 process", Mat. Sci. & Eng. B37, p.172 (1996)

22) H. H. Park, K. H. Kwon, K. S. Kim, C. I .Kim and Y. K. Sung, "Recovery of silicon surface after reactive ion etching of SiO_2 using CHF_3/C_2F_6 plasma", Jpn. J. of Appl. Phys. 35, p.1611 (1996)

23) H. H. Park, S. Y. Lee, "Effect of $PrBa_2Cu_3O_{7-X}$ buffer layer thickness on the properties of $YBa_2Cu_3O_{7-X}$ thin-films grown on sapphire by laser-ablation", J. of Superconductivity 9(5), p.545 (1996)

24) H. H. Park, S. Y. Lee, "Interfacial properties of YBa_2CuO_{7-x} thin films on Al_2O_3 substrates prepared by pulsed laser deposition", J. of Electronic Materials 25(6), p.972 (1996)

25) H. H. Park, J. T. Baek, S. W. Kang B. T. Ahn, I. J. Yoo, "Investigation of link formation in a novel planar-type antifuse structure", Thin Solid Films 288, p.411 (1996)

26) H. H. Park, I.S. Jin, K. H. Kwon, C. I. Kim, "Passivation role of sulfur and etching behavior in plasma etched TiW using SF_6 and BCl_3 gases", Microelectronic Engineering 33, p.223 (1997)

27) H. H. Park, M. H. Jo, J. K. Hong, J. J. Kim, S. H. Hyun, "Evaluation of SiO_2 aerogel thin film with ultra low dielectric constant as an intermetal dielectric", Microelectronic Engineering 33, p.343 (1997)

28) H. H. Park, M. G. Kang, S. H. Sa, K. S. Suh, J. L. Lee, "Sulfidation mechanism of pre-cleaned GaAs surface using $(NH_4)_2S_x$ solution", Mat. Sci. & Eng B B46, p.65 (1997)

29) H. H. Park, M. H. Jo, D. J. Kim, S. H. Hyun, S. Y. Choi, J. T. Baek, "SiO_2 aerogel film as a novel intermetal dielectric", J of Appl. Phys. 82(3), p.1299 (1997)

30) H. H. Park, M. H. Cho, J. K. Hong, et al., "Application of SiO_2 aerogel film with low dielectric constant to intermetal dielectrics", Thin Solid Films 308-309, p.490 (1997)

31) H. H. Park, J. K. Hong, H. S. Yang, M. H. Cho, S. Y. Choi, "Preparation and characterization of porous silica xerogel film for low dielectric application", Thin Solid Films 308-309, p.495 (1997)

32) H. H. Park, M. G. Kang, S. H. Sa, "The characterization of etched GaAs surface with HCl and H_3PO_4 solutions", Thin Solid Films 308-309, p.634 (1997)

33) H. H. Park, H. S. Yang, S. Y. Choi, S. H. Hyun, and J. K. Hong, "Ambient-dried low dielectric SiO_2 aerogel thin film", J. of Noncrystalline Solids 221, p.151 (1997)

34) H. H. Park, S. H. Sa, M. G. Kang, K. H. Oh, "The Comparative Analysis of S and Se in $(NH_4)_2(S,Se)_{1.08}$-Treated GaAs(100) Surface", Surface and Coatings Technology 100, p.222 (1998)

35) H. H. Park, S. J. Wang, I. S. Jin, "X-ray Photoelectron Spectroscopic Analysis on Plasma-etched SiO_2 Aerogel with CHF_3 gas", Surface and Coatings Technology 100, p.59 (1998)

36) H. H. Park, I. S. Jin, T. S. Kim, "The Effect of Interfacial State on lectrical Properties of PZT-electrode System for Applying to Nonvolatile Memory Devices", Surface and Coatings Technology 100, p.229 (1998)

37) H. H. Park, S. H. Sa, M. G. Kang, K. S. Suh, "The Investigation on the Structural Distribution of Passivated GaAs(100) Surface after $(NH_4)_2S_x$ Treatment", Surface and coatings Technology 100, p.234 (1998)

38) H. H. Park, J. T. Baek, B. T. Ahn, S. H. Jun, Y. T. Kim, Y. H. Song, J. D. Kim, "Interfacial Reaction between Aluminum Metal and Boron-doped Polysilicon in a Planar Type Antifuse Device", Japan Journal appl. Phys. 37, p.2451 (1998)

39) H. H. Park, M. H. Jo, "Leakage Current and Dielectric Breakdown Behavior in Annealed SiO_2 Aerogel Films", Applied Physics Letters 72, p.1391 (1998)

40) H. H. Park, M. H. Jo, H. R. Kim, S. H. Hyun, "Effect of oxygen plasma treatment on SiO_2 aerogel films", J. of Mat. Sci. Lett. 17, p.2083 (1998)
41) H. H. Park, I. S. Jin, D. H. Kim, T. S. Kim, "Effect of excess Pb and O content on the ferroelectric properties of sputter deposited $Pb(Zr_{0.52}Ti_{0.48})O_3$/Pt system", Thin Solid Films 332, p.300 (1998)
42) H. H. Park, J. K. Hong, H. R. Kim, "The effect of sol viscosity on the sol-gel derived low density SiO_2 xerogel film for intermetal dielectric application", Thin Solid Films 332, p.449 (1998)
43) H. H. Park, M. G. Kang, "Effect of GaAs surface treatment using HCl or $(NH_4)_2S_x$ solutions on the interfacial bonding states induced by deposition of Au", Thin Solid Films 332, p.437 (1998)
44) H. H. Park, J. W. Kim, S. H. Sa, M. G. Kang, "A study on the structural distribution of Se-passivated GaAs surface", Thin Solid Films 332, p.305 (1998)
45) H. H. Park, H. S. Jung, S. S. Pang, S. Y. Lee, "The investigation of thermal effect on the properties of pulsed laser deposited diamond-like carbon films", Thin Solid Films 332, p.103 (1998)
46) H. H. Park, H. R. Kim, S. H. Hyun, G. Y. Yeom, "Effect of O_2 plasma treatment on the properties of SiO_2 aerogel film", Thin Solid Films 332, p.444 (1998)
47) H. H. Park, H. R. Kim, "The effect of Ar+ ion bombardment on SiO_2 aerogel film", Jpn. J. Appl. Phys. 37, p.6955 (1998)
48) H. H. Park, S. Y. Lee, D. W. Kim, S. K. Rha, C. O. Park, “Reflow of copper in an oxygen ambient”, J. Vac. Sci. Technol. B 16, p.2902 (1998)
49) H. H. Park, S. Sekiguchi, M. Fujimoto, M. Nomura, S. B. Cho, J. Tanaka, T. Nishihara, M. G. Kang, D. W. Kim , "Atomic force microscopic observation of $SrTiO_3$ polar surface', Solid State Ionics 108, p. 73 (1998)
50) H. H. Park, W. S. Kim, S. M. Ha, C. E. Kim, "The effect of cation-substitution on the ferroelectric properties of sol-gel derived PZT thin film for FRAM application", Thin Solid Films 355 , p.531-535 (1999)
51) H. H. Park, M. G. Kang, "Bonding and structural changes of natively oxidized GaAs surface during ion induced deposition of Au", Thin Solid Films 355, p.435-439 (1999)
52) H. H. Park, H. S. Jung, S. S. Pang, S. Y. Lee, "The structural and electron field emission characteristics of pulsed laser deposited diamond-like carbon films with thermal treatment", Thin Solid Films 355, p. 151-156 (1999)
53) H. H. Park, S. M. Ha, D. H. Kim, T. S. Kim, "Crystallization and ferroelectric behavior of sputter deposited PZT using a target containing excess Pb and O contents", Thin solid films 355, p.525-530 (1999)
54) H. H. Park, J. W. Kim, M. G. Kang, "Investigation on the surface characteristics of GaAs after sulfuric-vapor treatment", Thin solid films 355, p.423-429 (1999)
55) H. H. Park, S. S. Pang, S. Y. Lee, H. S. Jung, "Effect of laser parameters on the property of DLC films grown by pulsed laser deposition", Surface and Coatings Technology 115, p.266-269 (1999)
56) H. H. Park, M. G. Kang, "Effect of prepared GaAs surface on the sulfidation with $(NH_4)_2S_x$ solution", J. Vac. Sci. Technol. A 17, p.88-92 (1999)
57) H. H. Park, W. S. Kim, J. W. Kim, H. N. Lee, "Fabrication and characterization of Pt-Oxide electrode for ferroelectric random access memory application", Jap. J. appl. Phys**.** 39, p.7097-7099 (2000)
58) H. H. Park, S. J. Wang, G. Y. Yeom, "Effects of H_2 addition in magnetized inductively coupled C_2F_6 plasma etching of silica aerogel film", Jap. J. appl. Phys**.** 39, p.7007-7010 (2000)
59) H. H. Park, J. K. Yang, W. S. Kim, "Enhanced Fatigue property through the control of interfacial layer in Pt/PZT/Pt structure", Jap. J. appl. Phys**.** 39, p.7000-7002 (2000)
60) H. H. Park, M. G. Kang, J. W. Kim, "Amelioration of the interfacial properties in Au/GaAs schottky contact using sulfidation and hydrogenation", Jap. J. appl. Phys**.** 39, p.7003-7006 (2000)
61) H. H. Park, S. Shim, S. M. Kim, S. H. Bae, S. Y. Lee, H. S. Jung, "Fabrication and characterization of diamond-like carbon thin films by pulsed laser deposition", Applied Surface Sci. 154, p.482-484 (2000)
62) H. H. Park, S. H. Hyun, T. Y. Kim, "Synthesis of low-k porous silica films via freeze drying", Journal of materials science letters 19, p.1863-1866 (2000)
63) H. H. Park, S. H. Hyun, J. J. Kim, "Synthesis and characterization of low-dielectric silica aerogel films", Journal of the American Ceramic Society 83, p.533-540 (2000)
64) H. H. Park, J. K. Yang, W. S. Kim, "The effect of excess Pb content on the crystallization and electrical properties of sol-gel derived $Pb(Zr_{0.4}Ti_{0.6})O_3$ thin film", Thin Solid Films 377, p.739-744 (2000)
65) H. H. Park, J. H. Kim, S. B. Jung, S. H. Hyun, "The effects of pre-aging and concentration of surface modifying agent on the microstructure and dielectric properties of SiO_2 xerogel film", Thin Solid Films 377, p.467-472 (2000)
66) H. H. Park, J. J. Kim, S. H. Hyun, "The effects of plasma treatment on SiO_2 aerogel film using various reactive (O_2,H_2,N_2) and non-reactive(He,Ar) gases", Thin Solid Films 377, p.525-529 (2000)
67) H. H. Park, H. S. Jung, "Studies on the structure and bonding state of nitric amorphous carbon (a-CN_x) films by reactive rf magnetron sputtering", Thin Solid Films 377, p.320-325 (2000)
68) H. H. Park, W. S. Kim, S. M. Ha, J. K. Yang, "Ferroelectric-gate field-effect transistors using $Nd_2Ti_2O_7/Y_2O_3$/Si structures", Thin Solid Films 398, p.663-667 (2001)

69) H. H. Park, R. H. Kim, G. T. Joo, "The growth of $LiNbO_3$ (006) on MgO (001) and $LiTaO_3$ (012) substrates by sol-gel procedure", Applied Surface Sci 169, p.564-569 (2001)
70) H. H. Park, S. M. Ha, W. S. Kim, T. S. Kim, "Substrate modification for the direct formation of PZT film with perovskite structure by low temperature anneal", Ferroelectrics 259, p.283-288 (2001)
71) H. H. Park, W. S. Kim, M. G. Kang, J. K. Yang, "Fabrication and characterization of Nd_2Ti_2O7 for ferroelectric field effect transistor", Ferroelectrics 259, p.299-304 (2001)
72) H. H. Park, J. K. Yang, W. S. Kim, "The investigation of Pb-sufficient buffer layer on the ferroelectric properties in Pt/PZT/Pt structure", Ferroelectrics 260, p.267-272 (2001)
73) H. H. Park, J. Y. Jung, W. S. Kim, T. S. Kim, "The effects of solvent on the properties of sol-gel derived PZT thin films", Ferroelectrics 263, p.327-334 (2001)
74) H. H. Park, S. M. Ha, W. S. Kim, T. S. Kim, "The effect of film thickness of ortho-nitrobenzaldehyde modified PZT on the crystallization and ferroelectric properties", Ferroelectrics 263, p.335-340 (2001)
75) H. H. Park, S. M. Ha, W. S. Kim, T. S. Kim, "The effect of ortho-nitrobenzaldehyde as photosensitizer on the properties of PZT films", Ferroelectrics 263, p.341-346 (2001)
76) H. H. Park, M. G. Kang, "Interface-controlled Au/GaAs schottky contact with surface sulfidation and interfacial hydrogenation", J. of Appl. Phys. 89(9), p.5204-5208 (2001)
77) H. H. Park, J. K. Yang, W. S. Kim, "Effect of grain size of $Pb(Zr_{0.4}Ti_{0.6})O_3$ sol-gel derived thin films on the ferroelectric properties", Applied Surface Sci. 169, p.544-549 (2001)
78) H. H. Park, R. H. Kim, G. T. Joo, "Cation diffusion characteristics in MgO doped $LiNbO_3$ during Ti diffusion", Applied Surface Sci. 169, p.570-574 (2001)
79) H. H. Park, S. J. Wang, G. Y. Yeom, S. H. Hyun, "The effects of surface terminal bonds and microstructure of SiO_2 aerogel films on dry etching", Applied Surface Sci. 169, p.457-462 (2001)
80) H. H. Park, J. Y. Rha, W. S. Kim, J. W. Kim, "Relationship between microstructure and electrochemical characteristics in steel corrosion", Applied Surface Sci. 169, p.587-592 (2001)
81) H. H. Park, W. S. Kim, J. K. Yang, "Influence of preferred orientation of lead zirconate titanate thin film on the ferroelectric properties", Applied Surface Sci. 169, p.549-552 (2001)
82) H. H. Park, J. H. Kim, H. R. Kim, S. H. Hyun, "Aging effect of SiO_2 xerogel film on its microstructure and dielectric properties", Applied Surface Sci. 169, p.452-456 (2001)
83) H. H. Park, G. S. Kim, S. H. Hyun, "Synthesis of low dielectric silica aerogel films by ambient drying", J. Am. ceram. Soc. 84(2), p.453-455 (2001)
84) H. H. Park, J. J. Kim, S. H. Hyun, "The evolution of microstructure and surface bonding in SiO_2 aerogel film after plasma treatment using O_2, N_2, and H_2 gases", Thin Solid Films 384(2), p.236-242, (2001)
85) H. H. Park, M. G. Kang, "The Effective Control of Pd/GaAs Interface by Sulfidation and Thermal Hydrogenation", Jpn. J. Appl. Phys. 40(7), p.4454-4457 (2001)
86) H. H. Park, M. G. Kang, H. C. Kim, "Interface-controlled gate of GaAs-metal semiconductor field effect transistor", Appl. Phys. Lett. 80(14), p.2499-2501 (2002)
87) H. H. Park, S. M. Ha, W. S. Kim, T. S. Kim, "Formation and characterization of self-patterned PZT film for applying to micro-mechanical detecting system", Ferroelectrics 273, p.351-357 (2002)
88) H. H. Park, W. S. Kim, S. M. Ha, J. K. Yang, "Fabrication and Characterization of $La_2Ti_2O_7$ Films for ferroelectric-gate field effect transistor applications", Ferroelectrics 271, p.333-339 (2002)
89) H. H. Park, H. S. Jung, "Micro-structural analysis of carbon nitride (CN_x) film prepared by ion beam assisted magnetron sputtering", Diamond and Related Materials 11, p.1205-1209 (2002)
90) H. H. Park, J. K. Yang, M. G. Kang, "Characteristics of interfacial bonding distribution of Gd_2O_3-GaAs structure", Vacuum 67, p.161-167 (2002)
91) H. H. Park, S. W. Park, S. B. Jung, M. G. Kang, H. S. Jung, H. C. Kim, "Investigation on the interface formation of ambient pressure dried SiO_2 aerogel film deposited on GaAs", Vacuum 67(1), p.155-159 (2002)
92) H. H. Park, M. G. Kang, "Surface preparation and effective contact formation for GaAs surface", Vacuum 67(1), p.91-100 (2002)
93) H. H. Park, W. S. Kim, S. M. Ha, S. Yun, "Microstructure and electrical properties of $Ln_2Ti_2O_7$ (Ln=La,Nd)", Thin Solid Films 420, p.575-578 (2002)
94) H. H. Park, J. K. Yang, M. G. Kang, "Interface control of Gd_2O_3/GaAs system using predeposition of Gd metal on GaAs substrate with native oxides", Thin Solid Films 420, p.571-574 (2002)
95) H. H. Park, S. B. Jung, "Control of surface residual -OH polar bonds in SiO_2 aerogel film by silylation", Thin Solid Films 420, p.503-507 (2002)
96) H. H. Park, S. B. Jung, "Ambient pressure dried SiO_2 aerogel film on GaAs for application to interlayer dielectrics", Thin Solid Films 420, p.461-464 (2002)
97) H. H. Park, H. S. Jung, "Structural and electrical properties of co-sputtered fluorinated amorphous carbon(a-C:F) film", Thin Solid Films 420, p.248-252 (2002)
98) H. H. Park, S. B. Jung, J. H. Kim, H. R. Kim, "Effect of solvent on the preparation of ambient pressure-dried SiO_2 aerogel films", Microelectronic Eng. 65, p.113-122 (2003)
99) H. H. Park, S. W. Park, S. B. Jung, M. G. Kang, H. C. Kim, "Modification of GaAs and copper surface by the formation of SiO_2 aerogel film as an interlayer dielectric", Applied Surface Science 216, p.

98-105 (2003)

100) H. H. Park, H. S. Jung, "Correlation between deposition parameters and structural modification of amorphous carbon nitride(a-CN_x) films in magnetron sputtering", Applied Surface Science 216, p. 149-155 (2003)

101) H. H. Park, S. B. Jung, H. C. Kim, "The role of vacuum ultraviolet in H_2 plasma treatment on SiO_2 aerogel film", Applied Surface Science 216, p.156-162 (2003)

102) H. H. Park, J. K. Yang, W. S. Kim, "Interface-controlled Gd_2O_3/GaAs system ferroelectric memory application", Applied Surface Science 216, p.203-207 (2003)

103) H. H. Park, H. S. Jung, "Determination of local bonding configuration and structural modification in amorphous carbon with silicon incorporation", Diamond and Related Materials 12(8), p.1373-1377 (2003)

104) H. H. Park, J. S. Hwang, W. S. Kim, T. S. Kim, "Preparation of 0.5-μm thick self-patternable PZT films by sol–gel procedure for applying to the micro-detection system" Microelectronic Eng. 70(1), p. 73-77 (2003)

105) H. H. Park, H. S. Jung, I. R. Mendieta and D. A. Smit, "Enhancement of sp^3 Hybridized C in Amorphous Carbon (a-C) Films by Ar Ion Bombardment and Si incorporation", J. Appl. Phys. 94(8), p.4828-4834 (2003)

106) H. H. Park, S. B. Jung, S. W. Park, J. K. Yang and H. C. Kim, "Application of SiO_2 aerogel film for interlayer dielectric on GaAs with a barrier of Si_3N_4", Thin Solid Films 447-448, p.580-585 (2004)

107) H. H. Park, S. B. Jung and H. C. Kim, "Investigation of the bonding states of the SiO_2 aerogel film/metal interface" Thin Solid Films 447-448, p.575-579 (2004)

108) H. H. Park, H. H. Park, S. Yoon and R. H. Hill, "Electrical Properties of PZT Thin Films by Photochemical Deposition" Thin Solid Films 447-448, p.669-673 (2004)

109) H. H. Park, J. K. Yang, H. C. Kim, H. W. Jang, J. L. Lee and S. I. Im "Improved performance of GaAs MESFETs through sulfidation of Pt/GaAs interface" Thin Solid Films 447-448, p.626-631 (2004)

110) I. -S. Jeong , J. H. Kim , H. H. Park and S. I. Im "n-ZnO/p-Si UV photodetectors employing AlO_x films for antireflection",Thin Solid Films, 447-448, p.111-114 (2004)

111) H. H. Park, H.-H. Park, W. S. Kim, J. K. Yang and Ross H. Hill, "Characterization of PLZT thin film prepared by photochemical deposition using photosensitive metal-organic precursors", Microelectronic Eng. 71(2), p.215-220 (2004)

112) H. H. Park, H. S. Jung, I. R. Mendieta, D. A. Smith "Determination of bonding structure of Si, Ge, and N incorporated amorphous carbon films by near -edge x-ray absorption fine structure and ultraviolet Raman spectroscopy", J. Appl. Phys. 96(2), p.1013-1018 (2004)

113) H. H. Park, C. K. Lee, W. S. Kim, "Structural and electrical properties of $Nd_2Ti_2O_7$/Y_2O_3/Si structures through interface treatment" Thin Solids Films 464-465, p.155-159 (2004)

114) H. H. Park, S. Yoon, H. J. Choi, "Comparative study between poly (*p*-phenylenevinylene)(PPV) and PPV/SiO_2 nano-composite for interface with aluminum electrode", Applied Surface Science 237(1-4), p.451-456 (2004)

115) H. H. Park, H. H. Park, R. H. Hill, "Stacking effect on the ferroelectric properties of PZT/PLZT multilayer thin films formed by photochemical metal-organic deposition", Applied Surface Science 237(1-4), p.427-432 (2004)

116) H. H. Park, C. K. Han, S. B. Jung, "Effects of Tetraethoxysilane Vapor Treatment on the Cetyltrimethylammonium bromide-Templated Silica Mesoporous Low-*k* Thin Film with 3D Close-Packed Array of Spherical Pores", Applied Surface Science 237(1-4), p.405-410 (2004)

117) H. H. Park, J. K. Yang, M. G. Kang, W. S. Kim, "Interfacial bonding distribution and energy band structure of $(Gd_2O_3)_{1-x}(SiO_2)_x$ (x=0.5)/GaAs (001) system", Applied Surface Science 237(1-4), p. 251-255 (2004)

118) H. H. Park, J. K. Yang, M. G. Kang, "Chemical and electrical characterization of Gd_2O_3/GaAs interface improved by sulfur passivation", J. Appl. Phys. 96(9), p.4811-4816 (2004)

119) H. H. Park, Woo Sik Kim, Chang Ki Lee, Jun-Kyu Yang, "Characteristics of ferroelectric gate transistor using $Nd_2Ti_2O_7$/HfO_2/Si structure", Integrated ferroelectrics 64, p.269-276 (2004)

120) H. H. Park, C. K. Lee, "Interface control of Y_2O_3 thin film with Si(100) in a Metal-(Ferroelectric)-Insulator-Semiconductor Structure", Journal of the Korean Physical Socitey 46(1), p.254-257 (2005)

121) H. H. Park, J. S. Hwang, W. S. Kim and T. S. Kim "The Effect of Intermediate anneal on the ferroelectric properties of direct-patterned PZT films", Sensors and Actuators A: Physical 117(1-3), p.137-142 (2005)

122) H. H. Park, C. K. Lee, W. S. Kim, H. T. Jeon, Y. H. Pae, "Thermal-stress stability of yttrium oxide as a buffer layer of metal-ferroelectric-insulator-semiconductor field effect transistor", Thin Solid Films 473(2), p.335-339 (2005)

123) H. H. Park, S. W. Bae, J. S. Hwang, W. S. Kim, T. S. Kim "Development of sol-gel precursor system for direct-patternable PZT ferroelectric films containing La, as a dopant", Integrated Ferroelectrics 69, p.83-91 (2005)

124) H.H. Park, J. K. Yang, "Incorporation of SiO_2 for the band alignment control of Gd_2O_3/n-GaAs(0 0 1)

structure", Applied Surface Science 244(1-4), p.293-296 (2005)

125) H. H. Park, H. J. Choi, J. K. Yang, S. Yoon, "Changes in the electric energy structure of CdSe nanocrystals of close-packed array by in situ anneal", Applied Surface Science 244(1-4), p92-95 (2005)

126) H. H. Park, S.-B. Jung, C.-K. Han, "Electrical and mechanical properties of surfactant-templated mesoporous silica thin films using Brij-76 surfactant", Applied Surface Science 244(1-4), p.47-50 (2005)

127) H. H. Park, J. K. Yang, K. H. Kwon, " Band offset control of Gd_2O_3/ n-GaAs(001) structure by incorporation of SiO_2", Thin Solid Films 484(1-2), p415-419 (2005)

128) H. H. Park, J. K. Yang, "Controlled band offset in $(Gd_2O_3)_{1-x}(SiO_2)_x(0\leq x\leq 1)$ /n-GaAs(001) structure", Appl. Phys. Lett. 87, p.022104 (2005)

129) H.H. Park, J. K. Yang, "Energy band structure and electrical properties of $(La_2O_3)_{1-x}(SiO_2)_x(0x1)$/n-GaAs(001) system". Appl. Phys. Lett. 87, p.202102 (2005)

130) H. H. Park, J. K. Yang and Woo Sik Kim, "Chemical bonding states and energy band gap of SiO_2-incorporated La_2O_3 films on n-GaAs (001)", Thin Solid Films. 494(1-2), p.311-314 (2006)

131) H. H. Park, S.-B. Jung, "Concentration-dependent mesostructure of surfactant-templated mesoporous silica thin film", Thin Solid Films 494(1-2), p.320-324 (2006)

132) H. H. Park, H.-J. Choi and J. K. Yang, "Effect of surface capping molecules on the electronic structure of CdSe nanocrystal film", Thin Solid Films 494(1-2), p.207-210 (2006)

133) H. H. Park, S. W. Bae and W. S. Kim, "Ferroelectric properties of direct-patterned half-micron thick PZT film", Sensors and Actuators A: Physical 125, p.548-552 (2006)

134) H. H. Park, G. Y. Kang, S. W. Bae, T. S. Kim, "Fabrication and electromechanical properties of a self-actuating $Pb(Zr_{0.52}Ti_{0.48})O_3$ microcantilever using a direct patternable sol-gel method", Applied Physics Letters 88, p.042904 (2006)

135) H. H. Park, H. S. Jung, S. B. Jung and H. K. Baik, "Bonding characteristics of Si and Ge incorporated amorphous carbon (a-C) films grown by magnetron sputtering", Thin Solid Films 506-507, p.77-81 (2006)

136) H. H. Park, S. B. Jung, "Improvement of electrical properties of surfactant-templated mesoporous silica thin films by plasma treatment", Thin Solid Films 506-507, p360-363 (2006)

137) H. H. Park, H.-H. Park, C.-S. Hong, S.-J. Wang, J. Moon, Ross H. Hill, "Formation of photoresist-free patterned ZnO film containing nano-sized Ag by photochemical solution deposition", Applied Surface Science 252(21), p.7739-7742 (2006)

138) H. H. Park, K. H. Kwon, J. K. Yang, J. Kim, T. M. Roh, "Rare-earth gate oxide for GaAs MOSFET application", Applied Surface Science 252(21), p.7624-7630 (2006)

139) H. H. Park, G. Y. Kang, G. Y. Han, J. Y. Kang, I.-H. Cho, S.-H. Paek, T. S. Kim, "Label-free protein assay with site-directly immobilized antibody using self-actuating PZT cantilever", Sensors and Actuators B: Chemical 117(2), p.332-338 (2006)

140) H. H. Park, H.-H. Park, Ross H. Hill "Direct-pattering of SnO_2 thin film by photochemical metal-organic deposition", Sensors and Actuators A: Physical 132(2), p.429-433 (2006)

141) H. H. Park, C.-S. Hong, H.-H. Park, "Effect of Metal(Al, Ga, and In)-Dopants and/or Ag nanoparticles on the Optical and Electrical Properties of ZnO Thin Film", Thin Solid Films 515(3), p.957-960 (2006)

142) H. H. Park, H.-H. Park, Ross H. Hill, "Electrical properties of PLZT thin films formed photochemical metal-organic deposition with Zr/Ti ratio", J. Elecroceram. 17(2-4), p.805-809 (2006)

143) H. H. Park, S. W. Bae, G. Y. Kang, T. S. Kim "Stress development of direct-patternable PZT film for applying to micro-detecting system", J. Elecroceram. 17(2-4) , p.135-139 (2006)

144) H. H. Park, S.-B. Jung, T.-J. Ha, "Roughness and pore structure control of ordered mesoporous silica films for the enhancement of electrical properties", Journal of Applied Physics 101, p.024109 (2007)

145) H. H. Park, H. Kim, S.-J. Wang, H. J. Chang, H. Jeon, Ross Henry Hill, “Study of Ag nanoparticles incorporated SnO_2 transparent conducting films by photochemical metal-organic deposition”, Thin Solid Films 516, p.198-202 (2007)

146) H. H. Park, S. G. Choi, T.-J. Ha, B.-G. Yu, S. Shin, H. H. Cho, “Application of mesoporous TiO_2 as a thermal isolation layer for infrared sensors”, Thin Solid Films 516, p.212-215 (2007)

147) H. H. Park, H.-H. Park, S.-B. Jung, T. S. Kim and Ross H. Hill, “Electrical and ferroelectric properties of SBT thin films formed by photochemical metal-organic deposition”, Sensors and Actuators B: Chemical 126, p.289-293 (2007)

148) H. H. Park, S.-B. Jung, T.-J. Ha, "Control of wall thickness in the formation of ordered mesoporous silica films", Thin Solid Films 515, p6521-6525 (2007)

149) H. H. Park, S.-J. Wang, “Study of PEDOT:PSS-SnO2 nanocomposite film as an anode for polymer electronics”, Journal of Electroceramics 18, p.161-165 (2007)

150) H. H. Park, S.-b. Jung, "Phase behavior of ordered mesoporous silica films prepared by brij-76 block copolymer", microporous & mesoporous materials 111, p.188-193 (2007)

151) H. H. Park, S. W. Kuk, S. H. Bang, I. H. Kim, S. Y. Jeon, H. T. Jeon, H. J. Chang, “Chemical and electrical properties of ZnS deposited with DEZ and H_2S by atomic layer deposition method”, Materials Science Forum 544-545, p.689-692 (2007)

152) H. H. Park, H.-H. Park, H. J. Chang, H. Jeon, “Study on the electrical properties of direct-patternable SBT films formed by photochemical metal-organic deposition” Materials Science Forum 544-545, p.1061-1064 (2007)
153) H. H. Park, I. J. Back, S. C. Gong, H. S. Lim, I. S Shin, S. W. Kuk, I. H. Kim, H. T. Jeon, H. J. Chang, “Field effect transistor with ZnS active layer on ITO/glass substrate”, Materials Science Forum 544-545, p.753-756 (2007)
154) H. H. Park, S.-B. Jung, T.-J. Ha, "Investigation of the properties of organically modified ordered mesoporous silica films, J. of Colloid and Interface Science 320, p.527-534 (2007)
155) H. H. Park, T.-J. Ha, S. G. Choi, S.-B. Jung, B.-G. Yu, “The Improvement of Mechanical and Dielectric Properties of Ordered Mesoporous Silica Film using TEOS-MTES Mixed Silica Precursor”, Ceramic International 34, p.947-951 (2007)
156) H. H. Park, H. C. Kim, H.-H. Park, H. J. Chang, H. T. Jeon, “Carbon nanotube-incorporated direct-patternable SnO_2 thin films formed by photochemical metal-organic deposition”, Thin Solid Films 517, p.1072-1076 (2008)
157) H. H. Park, S. Y. Jeon, S. H. Bang, S. G. Lee, S. Y. Kwon, W. H. Jeong, H. T. Jeon, J. C. Ho, “Characteristics of Zinc-Oxide-Sulfide-Mixed Films Deposited by Using Atomic Layer Deposition”, Journal of the Korean Physical Society 53, p.3287-3295 (2008)
158) H. H. Park, W. S. Kim, J. K. Yang, C. K. Lee, H. S. Lee, “Synthesis and characterization of ferroelectric properties of Ce2Ti2O7 thin films with Ce^{3+} by chemical solution deposition”, Thin Solid Films 517, p.506-509 (2008)
159) H. H. Park, H. C. Kim, J. J. Kim, Hyeong-Ho Park, S. Y. Choi, “Introduction of metal dopants and/or Ag nanoparticles into direct-patternable ZnO thin film formed by photochemical solution deposition”, Physical Status Solid A-Applications And Materials Science 205, p.2392-2395 (2008)
160) H. H. Park, T. J. Ha, S. B. Jung, Hojun Ryu, B. G. Yu, “Investigation of the effect of calcinations temperature on HMDS-treated ordered mesoporous silica film” Journal of Colloid and Interface Science 326, p.186-190 (2008)
161) H. H. Park, T. J. Ha, Hyeong-Ho Park, T. S. Kim, Ross H. Hill, “Effects of UV-irradiation during photochemical metal-organic deposition on the electric and ferroelectric properties of direct-patternable $Bi_{3.25}La_{0.75}Ti_3O_{12}$ films ”, Materials Letters 62, p.4143-4145 (2008)
162) H. H. Park, H. J. Choi, S. J. Wang, H. C. Kim, H. J. Chang, H. T. Jeon, “Surface control of CdSe nanocrystals by UV-exposure in air and successive thermal treatment under ultra high vacuum”, Applied Surface Science 254, p.6886-6889 (2008)
163) H. H. Park, S. Y. Jeon, S. H. Bang, S. J. Lee, S. Y. Kwon, W. H. Jeong, H. T. Jeon, H. J. Chang, “Structural and Electrical Properties of ZnO Thin Films Deposited by Atomic Layer Deposition at Low Temperatures” Journal Of The Electrochemical Society 155, p.738-743 (2008)
164) H. H. Park, K. H. Kwon, C. K. Lee, J. K. Yang, S. G. Choi, H. J. Chang, H. T. Jeon, “Effective formation of interface controlled Y_2O_3 thin film on Si(100) in a metal-(ferroelectric)-insulator-semiconductor structure”, Microelectronic Engineering 85, p.1781-1785 (2008)
165) H. H. Park, N. K. Min, A. Efremov, M. Kim, H. W. Lee, K. H. Kwon, “Etching characteristics and mechanism of Ge2Sb2Te5 thin films in inductively coupled Cl-2/Ar plasma”, Journal of Vacuum Science & Technology A 26, p.205-211 (2008)
166) H. H. Park, J. Y. Kim, H.-H. Park, A. S. Reddy, H. J. Chang , H. Jeon, Y. Chang, “Electromagnetic Shielding Effect of Hybrid with Ag Metal Nanoparticles-ZnO Transparent Conducting Oxide”, Ceramic International 34, p.1055-1058 (2008)
167) H. H. Park, S. G. Choi, T.-J. Ha, B.-G. Yu, S. P. Jaung, O. Kwon, “Improvement of uncooled infrared imaging detector by using mesoporous silica as a thermal isolation layer”, Ceramic International 34, p.833-836 (2008)
168) H. H. Park, H.-H. Park, T. S. Kim and Ross H. Hill, “Electric and ferroelectric properties of PZT/SBT multilayer films prepared by photochemical metal-organic deposition”, Sensor. Actuat. B-Chem. 130(2) p.696-700 (2008)
169) H. H. Park, N.-K. Min, A. Efremov, Y.-H. Kim, M. Kim, H. W. Lee, K.-H. Kwon, “Etching characteristics and mechanism of $Ge_2Sb_2Te_5$ thin films in inductively coupled Cl_2/Ar plasma”, J. Vac. Sci. Technol. A 26(2), p.205-211 (2008)
170) H. H. Park, A. S. Reddy, V. S. Reddy, K.V.S. Reddy, N.S. Sarma, S. Kaleemulla, S. Uthanna, P. S. Reddy, “Effect of sputtering power on the physical properties of dc magnetron sputtered copper oxide thin films”, Materials Chemistry and Physics 110, p.397-401 (2008)
171) H. H. Park, S. Y., K. H. Yoon, “The incorporation of SiO_2 nanoparticles in poly(p -phenylenevinylene)(PPV) for PPV/SiO_2 nanocomposite”, J. Elecroceram. 21, p7.52-756 (2008)
172) H. H. Park, C.-S. Hong, H.-H. Park and H. J. Chang, "Optical and electrical properties of ZnO thin film containing nano-sized Ag particles", Journal of Electroceramics 22, p.353-356 (2009)
173) H. H. Park, H. Kim, H.-H. Park, H. Jeon, H. J. Chang, Y. Chang, “Incorporation of carbon nanotube into direct-patternable ZnO thin film formed by photochemical solution deposition”, Ceramic International 35, p.131-135 (2009)

174) H. H. Park, J. J. Yang, S. G. Choi, "Epitaxial growth and band alignment of $(Gd_xLa_{1-x})_2O_3$ films on n-GaAs(001)", Micron 40, p.114-117 (2009)
175) H. H. Park, S. G. Choi, A. S. Reddy, "Low temperature grown polycrystalline $La_{0.7}Sr_{0.3}MnO_3$ thin films on amorphous SiO_2 substrates by rf magnetron sputtering", J. Vac. Sci. Technol. A 27(4), p.595-600 (2009)
176) H. H. Park, S. G. Choi, H. Jeon, H. J. Chang, "Analysis of layers and Interfaces in a Multi-Layer System and Schematic Simulation Using Angle-Resolved X-ray Photoelectron Spectroscopy", J. Comput. Theor. Nanosci. 6, p.2398-2401 (2009)
177) H. H. Park, H.-H. Park, H.-S. Lee, Ross H. Hill, and Y. T. Hwang, "Electric and ferroelectric properties of PZT/BLT multilayer films prepared by photochemical metal-organic deposition", Applied Surface Science 255, p.4197-4200 (2009)
178) H. H. Park, S.-J. Wang, "Electronic properties of hybridized poly (3, 4-ethylenedioxythiophene): Polystyrene sulfonate with surface-capped CdSe nanocrystals", Journal of Applied Physics 105, p.023716 (2009)
179) H. H. Park, S. Bang, S. Lee, S. Jeon, S. Kwon, W. Jeong, H. Kim, I. Shin, H. J. Chang, H. Jeon, "Al_2O_3 buffer in a ZnO thin film transistor with poly-4-vinylphenol dielectric", Semicond. Sci. Technol. 24, p.025008 (2009)
180) H. H. Park,Y.-J. Choi, H.-H. Park, H.l Kim, H. J. Chang, and H. Jeon, "Fabrication and Characterization of Direct-Patternable ZnO Films Containing Pt Nanoparticles", Japanese Journal of Applied Physics 48, p.035504 (2009)
181) H.H. Park, A. S. Reddy, G. M. Rao, S. Uthanna, P. S. Reddy, "Effect of substrate temperature on the physical properties of dc magnetron sputtered $CuAlO_2$ films", Journal of Alloys and Compounds 474, p.401-405 (2009)
182) H. H. Park, H.-H. Park, X. Zhang, H. Kim, J. Park, H. J. Chang, H. Jeon and Ross H. Hill, "Study of the electrical enhancement of direct-patternable Ag-nanostructures embedded SnO_2 thin films prepared by photochemical metal-organic deposition", Journal of the Ceramic Society of Japan 117(5), p.608-611 (2009)
183) H. H. Park, H.-H. Park, H.-S. Lee, Ross H. Hill and Y. T. Hwang, "Ferroelectric properties of direct-patternable La substituted $Bi_4Ti_3O_{12}$ thin films formed by photochemical metal-organic deposition", Journal of the Ceramic Society of Japan 117(5), p.604-607 (2009)
184) H. H. Park, S. Shin, T.-J. Ha, and H. H. Cho, "Thermal conductivity of BCC-ordered mesoporous silica films", J. Phys. D: Appl. Phys. 42, p.125404 (2009)
185) H. H. Park, H.-H. Park, H. Kim, S.-J. Wang, T. S. Kim, and ROSS H. Hill, "Microstructure and Ferroelectric Properties of Direct-Patternable $Bi_{3.25}La_{0.75}Ti_3O_{12}$ Films Prepared by Photochemical Metal-Organic Deposition", Ferroelectrics 386, p.14-21 (2009)
186) H. H. Park, S. G. Choi, T.-J. Ha, S. Shin, H. H. Cho, K.-H. Kwon, M. P. Hong, "Effective heat conservation in a sandwich-structured microbolometer using mesoporous TiO_2 layers", Sensors and Actuators A 155, p.131-135 (2009)
187) H. H. Park, H. M. Lee, S. J. Baek, S. C. Gong, C. D. Jeon, J. E. Choi, , H. Jeon, Y. C. Chang, H. J. Chang, "Preparation and characterization of phosphorescence organic light-emitting diodes using poly-vinylcarbazole: tris(2-phenylpyridine) iridium(III) emission layer", Optical Engineering 48(10), p.104001 (2009)
188) H. H. Park, S. G. Choi, A. S. Reddy, S.-J.o Wang, M. P. Hong, K.-H. Kwon, "Size effect of substitutional alkaline-earth elements on the electrical and structural properties of $LaMnO_3$ films", Journal of the Ceramic Society of Japan 117(11), p.1249-1253 (2009)
189) H. H. Park, Y.-J. Choi, S.-J. Wang, H. Kim, K.-H. Koo, "A study on the optical and electrical properties of direct-patternable ZnO films incorporated various contents of Pt nanoparticles", Applied Surface Science 256, p.1010-1013 (2009)
190) H. H. Park, T.-J. Ha, S.-J. Yoon, J.-S. Kim, "A study on the structural and mechanical properties of ordered mesoporous Al_2O_3 film", Applied Surface Science 256, p.1073-1077 (2009)
191) H. H. Park, Jyoti L. Gurav, A. Venkateswara Rao, D. Y. Nadargi, "Ambient pressure dried TEOS-based silica aerogels: good absorbents of organic liquids", J Mater Sci 45, p.503-510 (2010)
192) H. H. Park, S. G. Choi, S.-J. Wang, M. P. Hong, K.-H. Kwon, "Effects of dopant ion and Mn valence state in the $La_{1-x}A_xMnO_3$ (A=Sr,Ba) colossal magnetoresistance films", J. Vac. Sci. Technol. A 28(1), p.1-5 (2010)
193) H. H. Park, H.-H. Park, D.-G. Choi, X. Zhang, S. Jeon, S.-J. Park, S.-W. Lee, S. Kim, K. Kim, J.-H. Choi, J. Lee, D. K. Yun, K. J. Lee, R. H. Hill, J.-H. Jeong, "Photo-induced hybrid nanopatterning of titanium dioxide via direct imprint lithography", J. Mater. Chem. 20(10), p.1921-1926 (2010)
194) H. H. Park, H. G. Moon, H. W. Jang, J.-S. Kim, S.-J. Yoon, "Size effects in the CO sensing properties of nanostructured TiO_2 thin films fabricated by colloidal templating", Electron. Mater. Lett. 6(1), p.31-34 (2010)
195) H. H. Park, C.-Y. Lee, Y.-J. Choi, S. Yoon, "Effect of Ag nanoparticles on the electron energy structure and electrical properties of poly(p-phenylene vinylene) (PPV)", Synthetic Metals 160, p.621-624 (2010)

196) H. H. Park, T.-J. Ha, E. S. Kang, S. Shin, H. H. Cho, "Variations in mechanical and thermal properties of mesoporous alumina thin films due to porosity and ordered pore structure", Journal of Colloid and Interface Science 345, p.120-124 (2010)
197) H. H. Park, J.-C. Park, J.e-H. Pee, "Effect of presynthesis of Ta precursor on the formation of Ta nitrides", J. Mater. Res. 25(5), p.835-841 (2010)
198) H. H. Park, H.-H. Park, H.-S. Lee, X. Zhang, Ross H. Hill, "Fabrication of sub 50-nm direct-patterned Pb(Zr,Ti)O_3 films by electron beam-induced metal-organic deposition", J Electroceram 24, p.214-218 (2010)
199) H. H. Park, J.-H. Pee, J.-C. Park, Y. J. Kim,W.-S. Cho, "Silica coating of synthesized Ta_3N_5 powders by the micro-emulsion method", Physica Scripta T139, p.014048(1-5) (2010)
200) H. H. Park, S. G. Choi, A. S. Reddy, B.-G. Yu, W. S. Yang, S. H. Cheon, "Effect of high temperature post-annealing of $La_{0.7}Sr_{0.3}MnO_3$ films deposited by radio frequency magnetron sputtering on SiO_2/Si substrates heated at low temperature", Thin Solid Films 518, p.4432-4436 (2010)
201) H. H. Park, S.-J. Wang, H. Kim, Y.-S. Lee, H. Jeon, H. J. Chang, "Investigation of the surface chemical and electronic states of pyridine-capped CdSe nanocrystal films after plasma treatments using H_2, O_2, and Ar gases", J. Vac. Sci. Technol. A 28(4), p.559-563 (2010)
202) H. H. Park, S. Yoon, "Enhancement of the Electrical Properties of Poly(p-phenylene vinylene) by the Incorporation of Silicon Dioxide Nanoparticles", Journal of Applied Polymer Science 117, p.700-705 (2010)
203) H. H. Park, H. G. Moon, Y.-S. Shim, H. W. Jang, J.-S. Kim, K. J. Choi, C.-Y. Kang, J.-W. Choi, S.-J. Yoon, "Highly sensitive CO sensors based on cross-linked TiO_2 hollow hemispheres", Sens. Actuator B-Chem. 149, p.116-121 (2010)
204) H. H. Park, J. L. Gurav, I.-K. Jung, E. S. Kang, D. Y. Nadargi, "Silica aerogel: Synthesis and applications", Journal of Nanomaterials, 2010, p.409310 (2010)
205) H. H. Park, M. Kim, A. Efremov, M. Hong, N. K. Min, K.-H. Baek, K.-H. Kwon, "Effect of gas mixing ratio on etch behavior of Y_2O_3 thin films in Cl_2/Ar and BCl_3/Ar inductively coupled plasma", Japanese Journal of Applied Physics 49, p.08JB04 (2010)
206) H. H. Park, H.-H. Park, X. Zhang, Y.-J. Choi, R. H. Hill, "Synthesis of Ag nanostructures by photochemical reduction using citrate capped Pt seeds", Journal of Nanomaterials 2011, p.265287 (2010)
207) H. H. Park, J. Y. Kim, Y.-J. Choi, S. Golledge, D. C. Johnson. "Effective atomic layer deposition procedure for Al-dopant distribution in ZnO thin films, J. Vac. Sci. Technol. A 28(5), p.1111-1114 (2010)
208) H. H. Park, Y. S. Lim, J. Y. Cho, J.-K. Lee, S.-M. Choi, K. H. Kim, W.-S. Seo, "Microstructures and thermoelectric properties of spark plasma sintered In_4Se_3", Electron. Mater. Lett. 6(3), p.117-121 (2010)
209) H. H. Park, S.-B. Jung, T.-J. Ha, H. Kim, W.-S. Seo, Y. S. Lim, "The application of an ordered mesoporous silica film to a GaAs device", J Electroceram 25, p.140-144 (2010)
210) H. H. Park, T.-J. Ha, S.-Y. Jung, S.-J. Yoon, J.-S. Kim, H. W. Jang, "Effect of porosity on the Seebeck coefficient of mesoporous TiO_2 thin films", Thin Solid Films 518(24), p.7196-7198 (2010)
211) H. H. Park, S.-J. Wang, "Properties of one-step synthesized Pt nanoparticle-doped poly(3,4-ethylenedioxy thiophen):poly(styrenesulfonate) hybrid films", Thin Solid Films 518(24), p.7185-7190 (2010)
212) H. H. Park, S. G. Choi, S.-J. Wang, H.-H. Park, J.-N. Jang, M. Hong, K.-H. Kwon, "Properties of amorphous silicon thin films synthesized by reactive particle beam assisted chemical vapor deposition", Thin Solid Films 518(24), p.7372-7376 (2010)
213) H. H. Park, D. W. Kim, J.-H. Kang, Y. S. Lim, M.-H. Lee, W.-S. Seo, K. H. Seo, M. G. Park, "Effect of a hard coating layer on the damp heat stability of Ga-doped ZnO thin films on polyethylene terephthalate substrate", Journal of the Korean Physical Society 57(4), p.1045-1048 (2010)
214) H. H. Park, S. C. Gong, S. K. Jang, S. O. Ryu, H. Jeon, H. J. Chang, "Post annealing effect of flexible polymer solar cells to improve their electrical properties", Current Applied Physics 10(4), p.e192-e196 (2010)
215) H. H. Park, H. Kim, S. C. Gong, H. J. Chang, H. Jeon, "A study of the incorporation of conducting materials into direct-patternable SnO_2 thin films formed by photochemical metal-organic deposition", Journal of the Ceramic Society of Japan 118(11), p.1009-1012 (2010)
216) H. H. Park, H. Kim, "Enhancement of adhesion ability and high-temperature stability of silver paste film by incorporation of SnO_2 conducting oxide", Journal of the Ceramic Society of Japan 118(11), p.1071-1074 (2010)
217) H. H. Park, H.-H. Park, X. Zhang, Y.-J. Choi, H. Kim, R. H. Hill, "Facile synthesis and size control of Ag nanoparticles by a photochemical reduction at room temperature", Journal of the Ceramic Society of Japan 118(11), p.1002-1005 (2010)
218) H. H. Park, H.-S. Lee, H.-J. Choi, S.-W. Chung, "Electric and ferroelectric properties of a multilayer film of $Nd_2Ti_2O_7$ and $Bi_{3.25}La_{0.75}Ti_3O_{12}$ for use as a ferroelectric field effect transistor", Journal of the Ceramic Society of Japan 118(11), p.1017-1020 (2010)
219) H. H. Park, H.-S. Lee, H.-J. Choi, S.-W. Chung, "Effect of $SrTiO_3$ buffer layer on the phase formation

and properties of direct-patternable $BiFeO_3$ thin films fabricated using photochemical metal-organic deposition", Journal of the Ceramic Society of Japan 118(11), p.1024-1027 (2010)

220) H. H. Park, H.-S. Lee, Y.-T. Hwang, "Structural and Electrical Properties of Direct-Patternable $Bi_{4-X}Nd_XTi_3O_{12}$ Ferroelectric Thin Films", Ferroelectrics 400(1), p.255-262 (2010)

221) H. H. Park, Y.-J. Choi, S. Golledge, D. C. Johnson, H. J. Chang, H. Jeon, "The electrical and optical properties of direct-patternable SnO_2 thin films containing Pt nanoparticles at various annealing temperatures", Surface & Coatings Technology 205(7), p.2649-2653 (2010)

222) H. H. Park, S. C. Gong, S. Bang, H. Jeon, Y. C. Chang, H. J. Chang, "Effects of atomic layer deposition temperatures on structural on structural and electrical properties of ZnO films and its thin film transistors", Met. Mater. Int. 16(6), p.953-958 (2010)

223) H. H. Park, H. G. Moon, H. W. Jang, J.-S. Kim, S.-J. Yoon, "Mechanism of the sensitivity enhancement in TiO_2 hollow-hemisphere gas sensors", Electron. Mater. Lett. 6(4), p.135-139 (2010)

224) H. H. Park, J. S. Lee, Y.-J. Choi, S.-J. Wang, J. C. Pyun, "Characterization of Au-metal nanoparticles-hybridized poly(3,4-ethylenedioxythiophene) films for electrochromic devices", Phys. Status Solidi A 208(1), p.81-85 (2011)

225) H. H. Park, C.-Y. Lee, Y.-J. Choi, "Electrical properties of poly(p-phenylene vinylene) films with an incorporation of platinum metal nanoparticles", Journal of Applied Polymer Science 119, p.811-815 (2011)

226) H. H. Park, H.-H Park, X. Zhang, S.-W. Lee, K. Kim, D.-G. Choi, J.-H. Choi, J. Lee, E.-S. Lee, R. H. Hill, J.-H. Jeong, "Facile nanopartterning of zirconium dioxide films via direct ultraviolet-assisted nanoimprint lithography", Journal of Materials Chemistry 21, p.657-662 (2011)

227) H. H. Park, D. W. Kim, J.-H. Kang, Y. S. Lim, M.-H. Lee, W.-S. Seo, K. H. Seo, M. G. Park, "Pretreatment of polyethylene terephthalate substrate for the growth of Ga-doped ZnO thin film", Journal of Nanoscience and Nanotechnology 11, p.1617-1620 (2011)

228) H. H. Park, H. G. Moon, H. W. Jang, J.-S. Kim, S.-J. Yoon, "A route to high sensitivity and repid response Nb_2O_5-based gas sensors: TiO_2 doping, surface embossing, and voltage optimization", Sensors and Actuators B-Chemical 153, p.37-43 (2011)

229) H. H. Park, S.-Y. Jung, T.-J. Ha, W.-S. Seo, Y. S. Lim, S. Shin, H. H. Cho, "Thermoelectric properties of Nb-doped ordered mesoporous TiO_2", Journal of Electronic Materials 40(5), p.652-656 (2011)

230) H. H. Park, J.-H. Yim, K. Jung, H.-J. Kim, C. Park, J.-S. Kim, "Effect of composition on thermoelectric properties in PbTe-Bi_2Te_3 composites", Journal of Electronic Materials 40(5), p.1010-1014 (2011)

231) H. H. Park, J. Y. Cho, Y. S. Lim, S.-M. Choi, K. H. Kim, W.-S. Seo, "Thermoelectric properties of spark plasma-sintered In_4Se_3-In_4Te_3", Journal of Electronic Materials 40(5), p.1024-1028 (2011)

232) H. H. Park, H.-H. Park, X. Zhang, S.-W. Lee, S.-J. Jeong, S.-M. Lee, K. Kim, S.-G. Choi, J.-H. Choi, J. Lee, E.-S. Lee, H. K. Kang, R. H. Hill, J.-H. Jeong, "Optical characterization of anatase TiO_2 films patterned by direct ultraviolet-assisted nanoimprint lithography", Microelectronic Engineering 88, p.923-928 (2011)

233) H. H. Park, H. Kim, M.-K, "A study on the graphene incorporated direct-patternable SnO_2 thin film", Phys. Status Solidi A 208(8), p.1869–1872 (2011)

234) H. H. Park, H. G. Moon, Y.-S. Shim, Dong S., Yoon, J.-S., H. W. Jang, "Embossed TiO_2 Thin Films with Tailored Links between Hollow Hemispheres: Synthesis and Gas-Sensing Properties", J. Phys. Chem. C 115, p.9993–9999, (2011),

235) H. H. Park, S. G. Choi, H. –S. Lee, H. Choi, S. –W. Chung, "Spectroscopic study on resistive switching property of perovskite manganite film with controlled oxygen deficient state", J. Phys. D: Appl. Phys. 44, p.422001, (2011)

236) H. H. Park, J. –H. Yim, K. Jung, M. –J. Yoo, J. –S. Kim, C. Park, "Preparation and thermoelectric properties of quaternary bismuth tellurideeindium selenide compound", Current Applied Physics 11, p.S46-S49, (2011)

237) H. H. Park, C.-Y. Lee, Y.-J. Choi, "Electron energy structure and electrical properties of poly(p-phenylene vinylene) (PPV) with gold metal nanoparticles", Journal of Macromolecular Science, Part A: Pure and Applied Chemistry 48, p.538–543 (2011)

238) H. H. Park, Y. –J. Choi, C. –J. Kim, "Characteristics of direct-patternable SnO_2:Pt nanocomposite thin films fabricated by photochemical metal-organic deposition", J. Mater. Res. 26, p.2860, (2011)

239) H. H. Park, S. C. Gong, H. Jeon, H. J. Chang, "Properties of Blue Polymer Light Emitting Diodes According to the Doping Concentrations of FIrpic Phosphorescence", Mol. Cryst. Liq. Cryst. 551, p. 14–23, (2011)

240) H. H. Park, S. G. Choi, J. –N. Jang, M. Hong, K. –H. Kwon, "Effect of reflector bias voltage on the nanocrystallization of silicon thin films by reactive particle beam assisted chemical vapor deposition", Journal of the Ceramic Society of Japan 119 (12), p.922-925, (2011)

241) H. H. Park, T. –J. Ha, Y. –J. Choi, S. –Y. Jung, W. –S. Seo, Y. S. Lim, S. Shin, H. H. Cho, "Study on the Electrical and Thermal Conductivity of Ordered Mesoporous TiO_2 Thin Film Incorporated with Pt Nanoparticles", Jpn. J. Appl. Phys. 50, p.075001, (2011)

242) H. H. Park, H.-H. Park, X. Zhang, S. –W. Lee, K. –D. Kim, D. –G. Choi, J. –H. Choi, J. Lee, E. –S. Lee, Ross H. Hill, J. –H. Jeong, "Facile nanopatterning of zirconium dioxide films via direct ultraviolet-assisted nanoimprint lithography", J. Mater. Chem. 21, p.657–662, (2011)
243) H. H. Park, Y-J. Choi, "Direct patterning of SnO_2 composite films prepared with various contents of Pt nanoparticles by photochemical metal-organic deposition", Thin Solid Films 519, p.6214, (2011)
244) H. H. Park, K. H. Jung, S.-M. Choi, W.-S. Seo, "High temperature thermoelectric properties of Sr and Fe doped $SmCoO_3$ perovskite structure", Current Applied Physics 11, p.S260, (2011)
245) H. H. Park, T.-J. Ha, H.-G. Im, S.-J. Yoon, H. W. Jang, "Pore structure control of ordered mesoporous silica film using mixed surfactants", Journal of Nanomaterials 2011, Article ID 326472, (2011)
246) H. H. Park, M. Kim, A. Efremov, H. W. Lee, M. Hong, N. K. Min, K.-H. Kwon, "HfO_2 etching mechanism in inductively-coupled Cl_2/Ar plasma", Thin Solid Films 519, p.6708, (2011)
247) H. H. Park, J. S. Lee, Y.-J. Choi, J. C. Pyun, "Electrochromic properties of poly(3,4-ethylenedioxythiophene) nanocomposite film containing SiO_2 nanoparticles", Applied Polymer Sience 122, p.3080, (2011)
248) H. H. Park, S. Bang, S. Lee, J. Park, S. Park, Y. Ko, C. Choi, H. Chang, H. Jeon," The effects of post-annealing on the performance of ZnO thin film transistors", Thin Solid Films 519, p.8109–8113, (2011)
249) H. H. Park, W.-S. Kim, H.-S. Lee, Y.-T. Hwang, "Properties of $Pb(Zr_{0.52}Ti_{0.48})O_3$, $SrBi_2Ta_2O_9$, and $Nd_2Ti_2O_7$ in a MFIS of Y_2O_3 insulator base structure for Fe FET", Ferroelectrics 413, p.1, (2011)
250) H. H. Park, W.-S. Kim, H. –J. Choi, S. –W. Chang, "Comparative Studies of HfO_2, Y_2O_3, and CeO_2 Insulators in Metal-$Nd_2Ti_2O_7$ Ferroelectric-Insulator-Semiconductor Structures, Ferroelectrics 423, p.45–53, (2011)
251) H. H. Park, S.-J. Wang, Y.-J. Choi, "Investigation of Ag poly(3,4-ethylenedioxythiophen e):polystyrene sulfonate nanocomposite films prepared by a one-step aqueous method", Journal of Applied Physics 109, p.124902, (2011)
252) H. H. Park, T.-J. Ha, S.-Y. Jung, J.-H. Bae, H.-L. Lee, H. W. Jang, S.-J. Yoon, S. Shin, H. H. Cho, "Analysis of heat transfer in ordered and disordered mesoporous TiO_2 films by finite element analysis", Microporous and Mesoporous Materials 144, p.191–194, (2011)
253) H. H. Park, I.-K. Jung, J. L. Gurav, T.-J. Ha, S. G. Choi, S. Baek, "The properties of silica aerogels hybridized with SiO_2 nanoparticles by ambient pressure drying", Ceramics International 38S, p.S105–S108, (2012)
254) H. H. Park, S.-J. Wang, Y.-J. Choi, "Synthesis and characterization of Pt nanoparticles assembled in poly(3,4-ethylenedioxythiophene):polystyrene sulfonate", Ceramics International 38S, p.S453–S456 (2012)
255) H. H. Park, Y.-J. Choi, S. Golledge, D. C. Johnson, "A study on the incorporation of ZnO nanoparticles into MEH-PPV based organic-inorganic hybrid solar cells", Ceramics International 38S, p. S525–S528, (2012)
256) H. H. Park, H. Kim, "A study on the electrical properties of fluorine doped direct-patternable SnO_2 thin films", Ceramics International 38S, p.S609–S612, (2012)
257) H. H. Park, S. G. Choi, J.-N. Jang, M. P. Hong, K.-H. Kwon, "Effect of plasma source power on the nanocrystallization of silicon thin films by reactive particle beam assited chemical vapor deposition", Ceramics International 38S, p.S641–S644, (2012)
258) H. H. Park, I.-K. Jung, J. L. Gurav, Uzma K.H. Bangi, S. Baek, "Silica xerogel films hybridized with carbon nanotubes by single step sol–gel processing", Journal of Non-Crystalline Solids 358, p.550–556, (2012)
259) H. H. Park, S. -J. Baek, S. -C,Gong, Y. -C. Chang, H. Jeon, H. -J Chang, "Properties of flexible phosphorescence polymer light emitting diodes coated on polyethylenenaphthalate plastic substrates", Journal of Nanoscience and Nanotechnology 12, p.1585-1588 (2012)
260) H. H. Park, J. Y. Cho, W. J. Nam, Y. S. Lim, W. -S. Seo, J. Y. Lee, "Bulky mesoporous TiO_2 structure", RSC Advances 2, p.2449-2453, (2012)
261) H. H. Park, H. G. Moon, W. -S. Shim, D. H. Kim, H. W. Jang, S. -H. Han, S.-J. Yoon, "Highly Ordered Large-Area Colloid Templates for Nanostructured TiO_2 Thin Film Gas Sensors", Journal of Nanoscience and Nanotechnology 12, p.3496-3500, (2012)
262) H. H. Park, H. H. Park, X. Zhang, S. -Y. Hwang, S. H. Jung, S. Kang, H. -B. Shin, H. K. Kang, R. H Hill, C. K. Ko, "Simple and cost-effective fabrication of size-tunable zinc oxide architectures by multiple size reduction technique", Science and Technology of Advanced materials 12, p.025003, (2012)
263) H. H. Park, Uzma K.H. Bangi, M. S. Kavale, S. Baek, "Synthesis of MWCNTs doped sodium silicate based aerogels by ambient pressure drying", Journal of Sol-Gel Science and Technology 62, p.201-207, (2012)
264) H. H. Park, H. H. Park, W. L. Law, X. Zhang, S. -Y. Hwang, S. H. Jung, H. -B. Shin, H. K. Kang, R. H Hill, C. K. Ko, "Facile Size-Tunable Fabrication of Functional Tin Dioxide Nanostructures by Multiple Size Reduction Lithography" Appl. Mater. Interfaces 4, p.2507-2514, (2012)
265) H. H. Park, J. -H. Yim, H. W. Jang, M. -J. Yoo, D. -S. Paik, S. Baek, J. -S. Kim, "Thermoelectric

Properties of Indium-Selenium Nanocomposites Prepared by Mechanical Alloying and Spark Plasma Sintering", Journal of Electronic Materials 41(6), p.1354, (2012)

266) H. H. Park, C, -H. Lim, S. -M. Choi, W. -S. Seo, "A Power-Generation Test for Oxide-Based Thermoelectric Modules Using p-Type $Ca_3Co_4O_9$ and n-Type $Ca_{0.9}Nd_{0.1}MnO_3$ Legs", Journal of Electronic Materials 41(6), p.1247, (2012)

267) H. H. Park, C, -H. Lim, S. -M. Choi, W. -S. Seo, K. H. Kim, J. -Y. Kim, "Improvements of thermoelectric transport properties for a partially substituted $Ca_3Co_4O_9$ system by spark plasma sintering", Journal of Ceramic Processing Research 13(3), p.198-201, (2012)

268) H. H. Park, Y. S. Lim, S. G. Seo, B. B. Kim, H. -S. Choi, W. -S. Seo, Y. S. Cho, "Effects of SiO_2 Interlayer on Electrical Properties of Al-Doped ZnO Films under Bending Stress", Electronic Materials Letters 8, p.375-379, (2012)

269) H. H. Park, T. -J. Ha, H. W. Jang, S. -J. Yoon, S. Shin, H. H. Cho, "Study on the thermal stability of ordered mesoporous SiO_2 film for thermal insulating film", Microporous and Mesoporous Materials 158, p.123-128, (2012)

270) H. H. Park, H. G. Moon, Y. S. Shim, D. H. Kim, H. Y. Jeong, M. Jeong, J. Y. Jung, S. M. Han, J. K. Kim, J. -S. Kim, J. -H. Lee, H. L. Tuller, S. -J. Yoon, H. W. Jang, "Self-activated ultrahigh chemosensitivity of oxide thin film nanostructures for transparent sensors", Scientific Reports 1, p.588, (2012)

271) H. H. Park, S. -J Wang, Y. -J. Choi, S. C. Gong, Y. -H. Kim, "Effect of Silica Nanoparticle Content on the Structure and Electrostatic Bonding of PEDOT:PSS", Molecular Crystals and Liquid Crystals 568, p.179-185, (2012)

272) H. H. Park, T. -J. Ha, H. K. Kim, D. J. Choi, S. Shin, H. H. Cho, H. W. Jang, S. -J. Yoon, "Application of ordered mesoporous SiO_2 film for low power consumption in phase-change memory", Microporous and Mesoporous Materials 163, p.321-325, (2012)

273) H. H. Park, Uzma K.H. Bangi, C. -S. Park, S. Baek, "Improvement in optical and physical properties of TEOS based aerogels using acetonitrile via ambient pressure drying", Ceramics International 38, p.6883–6888, (2012)

274) H. H. Park, C. -S. Park, S. G. Choi, "Compensation effect of boron and nitrogen codoping on the hardness and electrical resistivity of diamond-like carbon films prepared by magnetron sputtering deposition", Journal of Materials Research 27, p.3027-3032, (2012)

275) H. H. Park, K. -H. Jung, S. -M. Choi, C. -H. Lim, W. -S. Seo, "Phase analysis and thermoelectric properties of $Zn_{1-x}M_xO$ (M= Al, Ga) samples", Surf. Interface Anal., 44, p. 1507-1510, (2012)

276) H. H. Park, S. C. Gong, Y. -J. Choi, H. Kim, C. -S. Park, "Aluminum-doped zinc oxide formed by atomic layer deposition for use as anodes in organic light emitting diodes", J. Vac. Sci. Technol. A 31, p. 01A101-1-01A101-6, (2013)

277) H. H. Park, T. H. Shin, J. –Y. Ha, H. –C. Song, S. –J. Yoon, J. -W. Choi, "Piezoelectric properties of highly densified 0.01Pb $(Mg_{1/2}W_{1/2})O_3$–0.41Pb $(Ni_{1/3}Nb_{2/3})O_3$–0.35$PbTiO_3$–0.23$PbZrO_3$+0.1 wt%Y_2O_3+1.5 wt% ZnO thick films on alumina substrate". Ceramic International 39, p.1327-1333, (2013)

278) H. H. Park, Uzma K.H. Bangi, I. -K. Jung, C. -S. Park, S. Baek, "Optically transparent silica aerogels based on sodium silicate by a two step solegel process and ambient pressure drying", Solid State Science 18, p.50-57, (2013)

279) H. H. Park, H. -S. Lee, S. G. Choi, H. -J. Choi, S. -W. Chung, "A study of resistive switching property in $Pr_{0.7}Ca_{0.3}MnO_3$, $CaMnO_3$, and their bi-layer films", Thin Solid Films 529, p.347–351, (2013)

280) H. H. Park, H. Kim, J. T. Baek, "A study of the electrical properties of graphene-incorporated direct-patternable ZnO thin films", Thin Solid Films 529, p.234–237, (2013)

281) H. H. Park, J. -S Lee, T. -J. Ha, M. -H. Hong, "The effect of porosity on the CO sensing properties of TiO_2 xerogel thin films", Thin Solid Films 529, p. 98–102, (2013)

282) H. H. Park, S. -Y. Jung, T. -J. Ha, C, -S. Park, W. -S. Seo, Y. S. Lim, S. Shin, H. H. Cho, "Improvement in the conductivity ratio of ordered mesoporous Ag-TiO_2 thin films for thermoelectric materials", Thin Solid Films 529, p. 94–97, (2013)

283) H. H. Park, H. Kim, M. -H. Hong, H. W. Jang, S. -J. Yoon, "CO gas sensing properties of direct-patternable TiO_2 thin films containing multi-wall carbon nanotubes", Thin Solid Films 529, p. 89–93, (2013)

284) H. H. Park, S. G. Choi, H. -S. Lee, H. Choi, S. -W. Chung, "The effect of Sr concentration on resistive switching properties of $La_{1-x}Sr_xMnO_3$ films", Thin Solid Films 529, p. 352–355, (2013)

285) H. H. Park, J. -S. Lee, T. -J. Ha, M. -H. Hong, C. -S. Park, "The effect of multiwalled carbon nanotube doping on the CO gas sensitivity of TiO_2 xerogel composite film" Applied Surface Science 269, p. 125– 128, (2013)

286) H. H. Park, Y. -J. Choi, S. C. Gong, D. C. Johnson, S. Golledge, D. Y. Yeom, "Characteristics of the electromagnetic interference shielding effectiveness of Al-doped ZnO thin films deposited by atomic layer deposition", Applied Surface Science 269, p. 92– 97, (2013)

287) H. H. Park, T. H. Shin, H. -Y. Ha, H. C. Song, S. -J. Yoon, S. -J. Hwang, S. Nahm, J. -W. Choi, "Role of Alumina Buffer Layer on the Dielectric and Piezoelectric Properties of PZT System Thick Films", J.

Am. Ceram. Soc., 96(2), p. 491–495, (2013)

288) H. H. Park, Uzma K.H. Bangi, C. -S. Park, S. Baek, "Sol–gel synthesis of high surface area nanostructured zirconia powder by surface chemical modification", Powder Technology 239, p. 314–318, (2013)

289) H. H. Park, T. -J. Ha, M. -H Hong, C. -S Park, "Gas sensing properties of ordered mesoporous TiO2 film enhanced by thermal shock induced cracking", Sensors and Actuators B 181, p. 874– 879 (2013)

290) H. H. Park, H. S. Lee, S. G. Choi, M. J. Rozenberg, "A new route to the Mott-Hubbard metal-insulator transition: Strong correlations effects in $Pr_{0.7}Ca_{0.3}MnO_3$", Scientific Reports 3, p. 1704-1708, (2013)

291) H. H. Park, T. -J. Ha, S. Shin, H. K. Kim, M. -H. Hong, C. -S. Park, "Use of ordered mesoporous SiO_2 as protection against thermal disturbance in phase-change memory" Appl. Phys. Lett. 102, p. 144102, (2013)

292) H. H. Park, Y. -J. Choi, S. -C. Gong, C. -S. Park, H. -S Lee, J. G. Jang, H. J. Chang, G. Y. Yeom, "Improved Performance of Organic Light-Emitting Diodes Fabricated on Al-Doped ZnO Anodes Incorporating a Homogeneous Al-Doped ZnO Buffer Layer Grown by Atomic Layer Deposition", Applied Materials & Interfaces 5, p. 3650-3655, (2013)

293) H. H. Park, P. -R. Choi, E. Koo, "Synthesis and Characterization of Luminescent $Eu(TTA)_3$phen in a Poly(ethylene oxide) Matrix for Detecting Traces of Water", Journal of Electronic Materials 42, p. 927-930, (2013)

294) H. H. Park, I. K. Jung, C. -S. Park, T. -J. Ha, S. Beak, "Effect of surface modification of SiO_2 nanoparticles on the mechanical properties of ambient pressure dried silica aerogels", Int. J. Nanotechnol., 10, p. 811-818, (2013)

295) H. H. Park, S. G. Choi, H. -S. Lee, G. Y. Yeom, "Investigation of the Properties of Ba-Substituted $La_{0.7}Sr_{0.3-x}Ba_xMnO_3$ Perovskite Manganite Films for Resistive Switching Applications", Journal of Electronic Materials, 42, p.1196-1201, (2013)

296) H. H. Park, H. Kim, C. -S Park, S. Baek, "A study of the annealing atmosphere effects on the electrical properties of graphene-incorporated directpatternable ZnO thin films", Int. J. Nanotechnol., 10, p. 819-827, (2013)

297) H. H. Park, H. H. Park, X. Zhang, K. W. Lee, K. H. Kim, S. H. Jung, D. S. Park, Y. S. Choi, H. -B. Shin, H. K. Sung, K. H. Park, H. K. Kang, C. K. Ko, "Position-controlled hydrothermal growth of ZnO nanorods on arbitrary substrates with a patterned seed layer via ultraviolet-assisted nanoimprint lithography", Cryst. Eng. Comm., 15, p.3463-3469, (2013)

298) H. H. Park, S. -J. Wang, Y. -J. Choi, B. Yoo, Y. -H. Kim, "Effect of Surface Chemisorption between Poly(3,4-ethylenedioxythiophene):Poly(styrene sulfonate) and Ag Nanoparticles on the Conductivity of the Nanocomposite Film", Chemistry Letters, 42, p.615-617, (2013)

299) H. H. Park, M. -H. Hong, S. -Y. Jung, T. -J. Ha, W. -S. Seo, Y. S. Lim, S Shin, H. H. Cho, "Thermoelectric properties of mesoporous TiO_2 thin films through annealing temperature and ratio of surfactant", Surface & Coatings Technology, 231, p.370-373, (2013)

300) H. H. Park, H. C. Kim, Y. -J. Choi, Y. -H. Kim, "One-step synthesis of Pt nanoparticles incorporated direct-patternable SnO_2 nanocomposite thin films", Surface & Coatings Technology, 231, p.385-388 (2013)

301) H. H. Park, C. -S. Park, S. G. Choi, J. -N. Jang, M, Hong, K. -H. Kwon, "Effect of boron and silicon doping on the surface and electrical properties of diamond like carbon films by magnetron sputtering technique", Surface & Coatings Technology, 231, p.131-134, (2013)

302) H. H. Park, I. K. Jung, T. -J. Ha, S. J. Park, D. J. Choi, S. Baek, "A study on the properties of Zr-doped γ-Al_2O_3 xerogels hybridized with α-Al_2O_3 whiskers synthesized by solvothermal drying", Surface & Coatings Technology, 231, p.185-188, (2013)

303) H. H. Park, C. -S. Park, Uzma K.H. Bangi, "Effect of sulfur dopants on the porous structure and electrical properties of mesoporous TiO_2 thin films", Materials Letters, 106, p.401-404, (2013)

304) H. H. Park, D. –S. Lee, T. –H. Kim, C. –H. Park, C. –Y. Chung, Y. –S. Lim, W. –S. Seo, "Crystal structure, properties and nanostructuring of a new layered chalcogenide semiconductor, Bi_2MnTe_4", CrystEngComm, 15, 5532-5338, (2013)

305) H. H. Park, Y. –S. Lim, D. –W. Kim, J. –H. Kang, S. –G. Seo, B. -B Kim, H. –S. Choi, W. –S. Seo, Y. –S. Cho, "Interfacial Structure and Electrical Propertiesof Transparent Conducting ZnO Thin Films on Polymer Substrates", Microsc. Microanal. 19, p.131–135, (2013)

306) H. H. Park, B. B. Kim, S. G. Seo, Y. S. Lim, H.-S. Choi, W.-S. Seo, "Improved Damp Heat Stability of Ga-Doped ZnO Thin Film by Pretreatment of the Polyethylene Terephthalate Substrate", Electron. Mater. Lett., Vol. 9, No., 5, p.599-603, (2013)

307) H. H. Park, B. –G. Song, J. H. Jung, G. –N. Bae, J. –K. Park, S. –H. Cho1, "Preparation of Monolithic $Cu(In_{0.7}Ga_{0.3})Se_2$ Nanopowders and Subsequent Fabrication of Sintered CIGS Films", Journal of Nanoscience and Nanotechnology, Vol. 13, p.6042–6051, (2013)

308) H. H. Park, M. –H. Hong, C. –S. Park, W. –S. Seo, Y. S. Lim, J. –K. Lee, "Thermoelectric Properties of Al-Doped Mesoporous ZnO Thin Films", Journal of Nanomaterials, Volume 2013, 6 pages, (2013)

309) H. H. Park, M. –H. Hong, C. –S. Park, S. W. Shin, H. H. Cho, W. –S. Seo, Y. S. Lim, J. –K. Lee,

"Effect of Surfactant Concentration Variation on the Thermoelectric Properties of Mesoporous ZnO", Journal of Nanomaterials, Volume 2013, 6 pages, (2013)

310) H. H. Park, S. G. Choi, H. –S. Lee, H. J. Choi, S. –W. Chung, " The effect of Ca substitution on the structural and electrical properties of $La_{0.7}Sr_{0.3-x}Ca_xMnO_3$ perovskite manganite films", Journal of Physics D, 46, 425102, (2013)

311) H. H. Park, H. G. Moon, Y. R. Choi, Y. –S. Shim, K. –I. Choi, J. –H. Lee, J. –S. Kim, S. –J. Yoon, C. –Y. Kang, H. W. Jang, "Extremely Sensitive and Selective NO Probe Based on Villi-like WO_3 Nanostructures for Application to Exhaled Breath Analyzers", ACS Appl. Mater. Interfaces 5, 10591−10596, (2013)

312) H. H. Park, S. –J. Jung, S. –G. Kim, D. –B. Hyun, S. H. Baek, J. -S. Kim, "Effect of Mechanical Deformation on Thermoelectric Properties of p-Type $(Bi_{0.225}Sb_{0.775})_2Te_3$ Alloys", Journal of Nanomaterials, 868540, (2013)

313) H. H. Park, Uzma K. H. Bangi, W. –J. Han, B. –W. Yoo, "Effects of successive additions of two capping ligands on the structural properties of PbO nanoparticles", J Nanopart Res, (2013)

314) H. H. Park, D. -S. Lee, T. –H. An, M. Jeong, H.-S. Choi, Y. -S Lim, W. –S. Seo, C. –H. Park, C. Park, H. H. Park, "Density of state effective mass and related charge transport properties in K-doped BiCuOSe", Applied Physics Letters 103, p.232110-0-4, (2013)

315) H. H. Park, Y. –J. Choi, "A simple approach to the fabrication of fluorinedoped zinc oxide thin films by atomic layer deposition at low temperatures and an investigation into the growth mode", J. Mater. Chem.C, Vol.2, No.1, 98-108, (2014)

316) H. H. Park, H. –H. Park, X. Zhang, Y. Cho, D. –W. Kim, J. Kim, K. W. Lee, J. Choi, H. K. Lee, S. H. Jung, E. J. Her, C, H, Kim, A. –Y. Moon, C. –S. Shin, H. –B. Shin, H. K. Sung, K. H. Park, H. –J. Kim, H. K. Kang, "Wafer-scale surface roughening for enhanced light extraction of high power AlGaInP-based light-emitting diodes", Optics Express 22, A723-A734, (2014)

317) H. H. Park, H. Kim, Y. –J. Choi, K. –M. Kang, "Directly patternable SnO_2 thin films incorporating Pt nanoparticles", Materials Research Bulletin 52, 6-10, (2014)

318) H. H. Park, M. –J. Choi, D. S. Jeong, J. H. Kim, J.-S. Kim, S. K. Kim, "Atomic layer deposition of HfO_2 thin films using H_2O_2 as oxidant", Applied Surface Science 301, 451-455, (2014)

319) H. H. Park, S. –J. Jung, J. –H. Kim, D. I. Kim, S. K. Kim, J. –S. Kim, D. –B. Hyun, S. –H. Baek, "Strain-assisted, low-temperature synthesis of high-performance thermoelectric materials", Phys. Chem. Chem. Phys., 16, 3529-3522, (2014)