

PROCEEDINGS OF SPIE

Sixth International Conference on ***Thin Film Physics and Applications***

Wenzhong Shen
Junhao Chu
Editors

25–28 September 2007
Shanghai, China

Organized and Sponsored by
Department of Physics, Shanghai Jiao Tong University (China)
The National Natural Science Foundation of China (China)
Chinese Physical Society (China)
Shanghai Physical Society (China)

Published by
SPIE

Volume 6984

Proceedings of SPIE, 0277-786X, v. 6984

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Sixth International Conference on Thin Film Physics and Applications, edited by Wenzhong Shen, Junhao Chu,
Proceedings of SPIE Vol. 6984, 698401, (2008) · 0277-786X/08/\$18 · doi: 10.1117/12.796760

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Please use the following format to cite material from this book:

Author(s), "Title of Paper," in *Sixth International Conference on Thin Film Physics and Applications*, edited by Wenzhong Shen, Junhao Chu, Proceedings of SPIE Vol. 6984 (SPIE, Bellingham, WA, 2008) Article CID Number.

ISSN 0277-786X
ISBN 9780819471826

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

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Contents

xv	Conference Committees
xvii	Introduction
xix	Conference Photo

SESSION 1 PHYSICS OF THIN FILMS

- 6984 02 **The structure and dielectrics of epitaxially strained BaRO₃ (R=Ti, Zr) thin films** [6984-01]
J. Tang, J. Zhu, J. Xiong, W. Qin, Y. Li, Univ. of Electronic Science and Technology of China (China)
- 6984 03 **Stress effect on electronic characteristics in heterojunction of (n⁺)nanocrystalline/(p⁺)crystalline Si** [6984-02]
W. Wei, Wenzhou Univ. (China)
- 6984 04 **Evaluation of carrier density distribution and population inversion caused by Γ —X scattering in GaAs/AIAs multi-quantum wells** [6984-03]
H. Kitamura, S. Hiratsuka, Doshisha Univ. (Japan); M. Hosoda, Osaka City Univ. (Japan); N. Ohtani, Doshisha Univ. (Japan)
- 6984 05 **Phase diagrams and in-plane anisotropic misfit strains of (110)Ba_{0.6}Sr_{0.4}TiO₃ thin films grown on (001) orthorhombic NdGaO₃ substrate** [6984-04]
P. F. Liu, X. J. Meng, J. L. Sun, J. H. Ma, J. H. Chu, Shanghai Institute of Technical Physics (China)
- 6984 06 **The first-principles study of Al adsorption on Si(001)2×1** [6984-05]
C. B. Feng, Z. Q. Ma, F. Hong, Y. H. Li, Shanghai Univ. (China)
- 6984 07 **Pulsed-laser deposition of thin Fe film on Cu(100): a kinetic Monte Carlo simulation** [6984-06]
J. Hu, F. Wu, Y. Fang, Zhejiang Normal Univ. (China)
- 6984 08 **Evaluation of subband energy in TPD/DCM organic multiple quantum wells** [6984-07]
T. Takayuki, M. Murata, M. Haishi, Doshisha Univ. (Japan); T. Ando, Hamamatsu Photonics (Japan); N. Ohtani, Doshisha Univ. (Japan)
- 6984 09 **Synthesis and characterization of SiO₂ capped ZnCdS nanocrystals** [6984-08]
G. Yang, D. Li, X. Zhu, Z. Xu, Y. Wang, Shanghai Univ. (China)
- 6984 0A **Luminescence of rhodamine B doped in silica films by evaporation-induced self-assembly** [6984-09]
L. Yao, F. Lu, C. Yue, F. Xie, F. Guan, Univ. of Shanghai for Science and Technology (China)
- 6984 0B **Determining band offset and interface charge density of hydrogenated nanocrystalline silicon/crystalline silicon heterojunction diode by C-V matching method** [6984-10]
J. J. Lu, Z. Z. Jiang, J. Chen, Y. L. He, W. Z. Shen, Shanghai Jiao Tong Univ. (China)

- 6984 0C **Temperature dependence of optical properties in AlInN thin films** [6984-11]
L. F. Jiang, W. Z. Shen, Shanghai Jiao Tong Univ. (China); H. Ogawa, Q. X. Guo, Saga Univ. (Japan)
- 6984 0D **Weak localization in indium nitride films** [6984-12]
X. Z. Yu, Z. Z. Jiang, Y. Yang, W. Pan, W. Z. Shen, Shanghai Jiao Tong Univ. (China)

SESSION 2 THIN FILM MATERIALS

- 6984 0E **High density Si nanodots: fabrication and properties (Invited Paper)** [6984-13]
J. Xu, J. Zhou, X. Li, Z. Cen, D. Chen, W. Li, L. Xu, Z. Ma, K. Chen, Nanjing Univ. (China)
- 6984 0F **Structural, electronic, and optical properties of Mn₄Si₇** [6984-14]
Y. Gao, R. S. Chen, M. Y. Zhou, Hubei Univ. (China); M. A. Lourenco, K. P. Homewood, Univ. of Surrey (United Kingdom); G. Shao, Univ. of Bolton (United Kingdom)
- 6984 0G **The blue-shift effect of the ion-milling-formed HgCdTe photodiodes** [6984-15]
F. X. Zha, Shanghai Univ. (China); J. Shao, National Lab. for IR Physics (China)
- 6984 0H **Simultaneous double-sided deposition of long-length epitaxial CeO₂ buffer layers for YBCO coated conductors** [6984-16]
J. Xiong, W. Qin, J. Tang, B. Tao, X. Han, Y. Li, Univ. of Electronic Science and Technology of China (China)
- 6984 0I **Epitaxial growth and electrical properties of Ba_{0.6}Sr_{0.4}TiO₃ thin films with conductive La_{0.5}Sr_{0.5}CoO₃ bottom electrodes** [6984-17]
W. F. Qin, J. Xiong, J. Zhu, J. L. Tang, W. B. Luo, X. H. Wei, Y. Zhang, Y. R. Li, Univ. of Electronic Science and Technology of China (China)
- 6984 0J **Synthesis, structure, and properties of Cu doped Bi₄V₂O₁₁ via EDTA-citrate gel process** [6984-18]
M. Guo, East China Normal Univ. (China); H. Deng, Shanghai Univ. (China); P. Yang, East China Normal Univ. (China)
- 6984 0K **Epitaxial growth and thermal dynamics of CeO₂ buffer layer on textured Ni-W substrates for YBCO coated conductors** [6984-19]
C. Y. Pan, C. B. Cai, L. L. Ying, Y. M. Lu, Z. Y. Liu, B. Gao, J. L. Liu, Shanghai Univ. (China)
- 6984 0L **Electric field assisted low-temperature growth of SiGe on insulating films for future TFT** [6984-20]
M. Miyao, H. Kanno, T. Sadoh, Kyushu Univ. (Japan)
- 6984 0M **Surface morphology of (100)ZnTe: P layer homoepitaxially grown by horizontal MOVPE technique** [6984-21]
K. Yamaguchi, Y. Kuramitsu, K. Saito, T. Tanaka, M. Nishio, Q. Guo, H. Ogawa, Saga Univ. (Japan)
- 6984 0N **Synthesis of functionalized ZnS:Mn/ZnS nanocrystals** [6984-22]
D. Li, Y. Wang, G. Yang, Z. Xu, Shanghai Univ. (China)

- 6984 0O **A study on the properties of ramie fabrics modified by plasma** [6984-23]
Z. Wang, Y. He, Guangxi Univ. for Nationalities (China); Y. Ma, J. Luo, Guangxi Research Institute of Silk-Ramie Textile Science (China); Y. Zhao, G. Qin, C. Liao, Guangxi Univ. for Nationalities (China)
- 6984 0P **Structural investigation and barrier properties of a-C:H thin films on polymer by PECVD** [6984-24]
Y. Zhang, X. Bian, Q. Chen, Y. Wang, G. Zhang, Y. Ge, Beijing Institute of Graphic Communication (China)
- 6984 0Q **The structural properties of O and B-O ion implanted diamond films** [6984-25]
X. J. Hu, Zhejiang Univ. of Technology (China); J. S. Ye, Hangzhou Iron and Steel Group Corp. (China); Q. S. Lu, G. Q. Zheng, Zhejiang Univ. of Technology (China)
- 6984 0R **Preparation and characterization of multiferroic $\text{CoFe}_2\text{O}_4\text{-Pb}(\text{Zr}_{0.53}\text{Ti}_{0.47})\text{O}_3$ composite films** [6984-26]
Y. Zhu, X. Yang, J. Cheng, S. Yu, W. Wu, Z. Meng, Shanghai Univ. (China)
- 6984 0S **Fabrication and physical properties of high-quality zinc oxide thin films** [6984-27]
B. Zhou, J. Wang, Y. Pan, L. Wang, H. Peng, Beihang Univ. (China)
- 6984 0T **The effect of sol concentration on $0.6\text{BiFeO}_3\text{-}0.4\text{PbTiO}_3$ thin films prepared by sol-gel method** [6984-28]
J. Cai, S. Yu, J. Cheng, Y. Lu, Z. Meng, Shanghai Univ. (China)
- 6984 0U **Electrical and optical properties of Na^+ -doped ZnO thin films prepared by sol-gel method** [6984-29]
Y. Li, Shanghai Univ. (China); C. Lin, Shanghai Institute of Materials (China); X. Zhou, J. Ma, X. Zhu, Shanghai Univ. (China)
- 6984 0V **Nitrogen incorporation characteristics of 4H-SiC epitaxial layer** [6984-30]
R. Jia, Y. Zhang, Y. Zhang, Y. Wang, Xidian Univ. (China)
- 6984 0W **Thickness impact of aluminum and silicon on bow of silicon solar cells** [6984-31]
L. Zhang, W. Wu, M. Li, Q. Su, Y. H. Zhang, Z. Q. Ma, Shanghai Univ. (China)
- 6984 0X **Parameter optimization of silicon solar cell back surface field (BSF) formation** [6984-32]
M. Li, W. Wu, Z. X. Zhao, L. Zhang, Z. Q. Ma, Q. F. Su, Y. H. Zhang, Shanghai Univ. (China)
- 6984 0Y **Investigation of copper phthalocyanine based Schottky solar cells** [6984-33]
Y. Zhang, W. Shi, Y. Guo, L. Wang, G. Wei, Shanghai Univ. (China)
- 6984 0Z **Annealing effects on exciton localization in GaNAs/GaAs epilayer** [6984-34]
Z. L. Liu, P. P. Chen, L. L. Ma, Shanghai Institute of Technical Physics (China); C. Wang, Yunnan Univ. (China); J. Shao, X. S. Chen, W. Lu, Shanghai Institute of Technical Physics (China)
- 6984 10 **Effect of annealing temperature on the structural and optical properties of Al-doped ZnO films by RF magnetron sputtering** [6984-35]
Y. Wu, B. Huang, L. Zhang, S. Wu, Xiamen Univ. (China)

- 6984 11 **Investigation on the mechanical properties of P-doped nc-Si:H films** [6984-36]
L. Wang, J. Wang, J. Lin, B. Zhou, H. Peng, Beihang Univ. (China)
- 6984 12 **Optical properties of $\text{Li}_2\text{B}_4\text{O}_7$ polycrystalline films prepared by screen-painting method** [6984-37]
L. Jia, Q. Wang, J. Jian, Y. Sun, F. Shang, Xinjiang Univ. (China)
- 6984 13 **Size dependence of tunneling magnetoresistance in self-assembled nanoparticle arrays** [6984-38]
Y. Yang, Y. Lin, C. Wu, Q. Feng, Z. Huang, Fujian Normal Univ. (China)
- 6984 14 **Growth of highly (h00) oriented barium strontium titanate films on silicon substrates using conducting LaNiO_3 electrode** [6984-39]
Y. H. Gao, J. H. Ma, J. L. Sun, X. J. Meng, J. H. Chu, Shanghai Institute of Technical Physics (China)
- 6984 15 **Preparation and photoelectric properties of ZnPc-PPV/TAZnPc films** [6984-40]
J. Zhang, Shanghai Univ. (China); Y. Shen, Shanghai Univ. (China) and Shanghai Institute of Technical Physics (China); F. Gu, F. Zheng, J. Zhang, Shanghai Univ. (China)
- 6984 16 **Spectroscopic ellipsometry measurement and simulation of mesoporous TiO_2 multilayer films** [6984-41]
L. Huang, Shanghai Univ. (China); Y. Shen, Shanghai Univ. (China) and Shanghai Institute of Technical Physics (China); F. Gu, X. Xu, J. Zhang, Shanghai Univ. (China)
- 6984 17 **Structural, electrical, and optical characterization of nanocrystalline diamond films deposited by HFCVD method** [6984-42]
Y. Jin, Shanghai Univ. (China) and Shanghai Jiangong Material Huangang Ready-Mixed Concrete Co., Ltd. (China); L. Wang, J. Liu, J. Huang, R. Xu, W. Shi, Y. Xia, Shanghai Univ. (China)
- 6984 18 **Influence of substrates on the nucleation behaviour of nanocrystalline diamond films** [6984-43]
J. Xu, Y. Xia, L. Wang, J. Liu, J. Huang, H. Pen, G. Hu, X. Zhu, Shanghai Univ. (China)
- 6984 19 **Ellipsometric study of CVD diamond films prepared with various grain sizes** [6984-44]
Y. Lou, L. Wang, H. Ma, H. Deng, B. Lu, Y. Xia, Shanghai Univ. (China)
- 6984 1A **Effect of heat treatment on the property of CuInS_2 thin film prepared by chemical bath deposition** [6984-45]
F. Cui, L. Wang, X. Chen, X. Sheng, D. Yang, Zhejiang Univ. (China); Y. Sun, Nankai Univ. (China)
- 6984 1B **Properties of compositionally graded $(\text{Pb,Sr})\text{TiO}_3$ thin films for tunable microwave device application** [6984-46]
D. Zhou, W. Wu, D. Jin, J. Cheng, Z. Meng, Shanghai Univ. (China)
- 6984 1C **Fabrication and properties study of $\text{Cu}(\text{In}_{1-x}\text{Ga}_x)\text{Se}_2$ films by vacuum evaporation** [6984-47]
A. Li, J. Qin, W. Shi, G. Wei, Shanghai Univ. (China)

- 6984 1D **Influence of DC Joule heating treatment on the GMI effect in Fe-Co-Nb-Si-B ribbons** [6984-48]
Q. Man, Y. Fang, H. Sun, F. Ye, Zhejiang Normal Univ. (China)
- 6984 1E **Sol-gel preparation and characterization of transparent GdTaO₄: Eu³⁺ thick films** [6984-49]
K. Han, M. Gu, X. Liu, C. Ni, S. Huang, B. Liu, Tongji Univ. (China)
- 6984 1F **Fabrication and photoluminescence properties of ST-401 plastic scintillation films** [6984-50]
M. Gu, L. You, X. Liu, C. Ni, S. Huang, B. Liu, Tongji Univ. (China)
- 6984 1G **Pockels effect in GaN/Al_xGa_{1-x}N superlattice with different quantum structures** [6984-51]
P. Chen, Institute of Semiconductors (China); S. P. Li, Xiamen Univ. (China); X. G. Tu, Y. H. Zuo, L. Zhao, S. W. Chen, Institute of Semiconductors (China); J. C. Li, W. Lin, H. Y. Chen, D. Y. Liu, J. Y. Kang, Xiamen Univ. (China); Y. D. Yu, Institute of Semiconductors (China); J. Z. Yu, Q. M. Wang, Institute of Semiconductors (China) and Xiamen Univ. (China)
- 6984 1H **Structures and optical properties of indium doped SrTiO₃ thin films by oxygen plasma-assisted pulsed laser deposition** [6984-52]
Y. Zhang, Shanghai Institute of Ceramics (China) and Graduate School of the Chinese Academy of Sciences (China); X. Li, W. Yu, X. Gao, Shanghai Institute of Ceramics (China); F. Wu, Shanghai Institute of Ceramics (China) and Graduate School of the Chinese Academy of Sciences (China); J. Kong, W. Shen, Shanghai Jiao Tong Univ. (China)
- 6984 1I **Fluorescent polymeric nanoparticles fabricated by plasma polymerization under atmospheric pressure and room temperature** [6984-53]
P. Yang, J. Zhang, Y. Guo, Donghua Univ. (China)
- 6984 1J **Correlation between crystalline qualities and resistive switching effects of La_{0.7}Sr_{0.3}MnO₃ films** [6984-54]
F. Wu, Shanghai Institute of Ceramics (China) and Graduate School of the Chinese Academy of Sciences (China); X. Li, W. Yu, Shanghai Institute of Ceramics (China); Y. Zhang, X. Cao, Shanghai Institute of Ceramics (China) and Graduate School of the Chinese Academy of Sciences (China)
- 6984 1K **Effects of TiO₂ buffer layers on the dielectric and tunable properties of Ba_{0.6}Sr_{0.4}TiO₃ thin films prepared by pulsed laser deposition** [6984-55]
J. Gong, J. Cheng, S. Yu, W. Wu, Z. Meng, Shanghai Univ. (China)
- 6984 1L **Study of lithium diffusion through vanadium pentoxide aerogel** [6984-56]
A. Wang, G. Wu, H. Yang, M. Zhang, X. Fang, X. Yang, B. Zhou, J. Shen, Tongji Univ. (China)
- n 6984 1M **The synthesis and property of nano-SnO₂ thin film by sol-gel** [6984-57]
S. Qin, Z. Tong, M. Guo, East China Normal Univ. (China); H. Deng, Shanghai Univ. (China); P. Yang, East China Normal Univ. (China)
- 6984 1N **Infrared dielectric properties of BaTiO₃ ultrathin films** [6984-58]
S. J. Liu, Shanghai Normal Univ. (China) and Shanghai Institute of Technical Physics (China); X. Y. Zhao, G. Pan, G. F. Su, Shanghai Normal Univ. (China); Z. M. Huang, J. H. Chu, Shanghai Institute of Technical Physics (China)

- 6984 1O **MOS capacitance properties of silicon-based PZT thin films** [6984-59]
X. Zhang, East China Normal Univ. (China); M. Shi, Shanghai Univ. (China); S. Qin, M. Guo, East China Normal Univ. (China); H. Deng, Shanghai Univ. (China); P. Yang, East China Normal Univ. (China)
- 6984 1P **Influence of substrate temperature on properties of tin sulfide thin films** [6984-60]
Y. Guo, W. Shi, Y. Zhang, L. Wang, G. Wei, Shanghai Univ. (China)
- 6984 1Q **Investigations on Sb₂O₃ doped-SnS thin films prepared by vacuum evaporation** [6984-61]
Y. Guo, W. Shi, Y. Zhang, L. Wang, G. Wei, Shanghai Univ. (China)
- 6984 1R **Magnetic behavior of Fe-based nanostructures combined with the ordered porous Al₂O₃ film** [6984-62]
C. You, J. Zhang, Z. Song, H. Yan, B. Yu, Y. Shen, Shanghai Univ. (China)
- 6984 1S **Growth and characterization of AlN thin films on free-standing diamond substrates** [6984-63]
J. Huang, Y. Xia, L. Wang, J. Liu, J. Xu, G. Hu, X. Zhu, Shanghai Univ. (China)
- 6984 1T **Growth and characterization of Li-doped ZnO thin films on nanocrystalline diamond substrates** [6984-64]
J. Huang, Y. Xia, L. Wang, J. Xu, G. Hu, X. Zhu, W. Shi, Shanghai Univ. (China)
- 6984 1U **Effects of high magnetic field on the properties of hot-filament CVD diamond films** [6984-65]
J. Huang, H. Peng, R. Xu, J. Xu, J. Liu, L. Wang, Y. Xia, Shanghai Univ. (China)

SESSION 3 TECHNOLOGY OF THIN FILMS

- 6984 1V **New approach to formation of nanopore on SOI: SiC/Si heteroepitaxial growth by supersonic jet CVD (Invited Paper)** [6984-66]
Y. Ikoma, K. Ono, M. Uenuma, T. Ogata, T. Motooka, Kyushu Univ. (Japan)
- 6984 1W **A methyl BN film by using tris-di-methyl-amino-boron (TMAB) for future low-K interlayer (Invited Paper)** [6984-67]
H. Aoki, S. Tokuyama, M. K. Mazumder, D. Watanabe, C. Kimura, T. Sugino, Osaka Univ. (Japan)
- 6984 1X **Fabrication and optical properties of ferroelectric microcavities fabricated by chemical solution deposition (Invited Paper)** [6984-68]
N. Dai, G. J. Hu, X. K. Hong, J. L. Shang, Shanghai Institute of Technical Physics (China)
- 6984 1Y **The effects of buffer layers on the growth of smooth relaxed SiGe thin films** [6984-69]
S. Zheng, China Univ. of Petroleum Beijing (China)
- 6984 1Z **Highly (h00) oriented growth of SrTiO₃ thin films on Si(100) substrates by RF magnetron sputtering and their optical properties** [6984-70]
J. H. Ma, J. H. Pin, Z. M. Huang, Y. H. Gao, T. Lin, F. W. Shi, J. L. Sun, J. H. Chu, Shanghai Institute of Technical Physics (China)
- 6984 20 **The role of ion-assisted deposition in PVD** [6984-71]
Z. Q. Ma, C. B. Feng, X. Tang, F. Li, B. He, B. B. Shi, Shanghai Univ. (China)

- 6984 21 **Synthesis of ordered ZnO nanorod film on ITO substrate using hydrothermal method** [6984-72]
X. Tang, Z. Q. Ma, W. G. Zhao, D. M. Wang, Shanghai Univ. (China)
- 6984 22 **Effect of working pressure on the properties of Al₂O₃/MgF₂ HR coatings prepared by electron beam evaporation** [6984-73]
M. Zhan, Z. Wu, Shanghai Second Polytechnic Univ. (China); J. Shao, Shanghai Institute of Optics and Fine Mechanics (China)
- 6984 23 **Study of the defects in GaN epitaxial films grown on sapphire by HVPE** [6984-74]
Z. Liu, Nanjing Univ. (China) and Nanjing Univ. of Information Science & Technology (China); X. Xiu, L. Chen, R. Zhang, Z. Xie, P. Han, Y. Shi, S. Gu, Y. Zheng, Nanjing Univ. (China)
- 6984 24 **PTFE nanocrystallines by oriented plasma polymerization at atmospheric pressure** [6984-75]
Y. Guo, J. Zhang, J. Xu, R. Zhou, J. Yu, Donghua Univ. (China)
- 6984 25 **Nano-particulate coating on cotton fabric through DBD** [6984-76]
Y. Guo, J. Zhang, J. Xu, R. Zhou, J. Yu, Donghua Univ. (China)
- 6984 26 **Fabrication and characterization of Si nanotip arrays for Si-based nano-devices** [6984-77]
X. Zhang, K. Liu, K. Chen, J. Xu, Z. Ma, W. Li, L. Xu, X. Huang, Nanjing Univ. (China)
- 6984 27 **Quantification of substrate cleanliness level based on thin film adhesion measurement** [6984-78]
Y. Tsukamoto, Ashikaga Institute of Technology (Japan)
- 6984 28 **Fabrication kinetics and properties of Ni-based nano-arrays embedded in anodic Al₂O₃ film** [6984-79]
H. Yan, J. Zhang, C. You, Z. Song, B. Yu, Y. Shen, Shanghai Univ. (China)
- 6984 29 **The effect of bias voltage on the morphology and wettability of plasma deposited titanium oxide films** [6984-80]
W. Liu, Y. Li, K. Guo, J. Zhang, Donghua Univ. (China)
- 6984 2A **Influence of annealing temperature on microstructures and resistivity of Fe_xAl_{1-x} films** [6984-81]
S. Yang, Z. Liao, Z. Liu, Sichuan Univ. (China); W. Wu, China Academy of Engineering Physics (China); D. Wu, T. Lu, Sichuan Univ. (China); L. Zhang, Y. Tang, China Academy of Engineering Physics (China)
- 6984 2B **The influence of the substrate temperature variation on Fe_xAl_{1-x} thin films deposition** [6984-82]
Z. Liu, Z. Liao, S. Yang, Sichuan Univ. (China); W. Wu, China Academy of Engineering Physics (China); D. Wu, T. Lu, Sichuan Univ. (China); L. Zhang, Y. Tang, China Academy of Engineering Physics (China)
- 6984 2C **Effect of LaNiO₃ sol concentration on the structure and dielectric properties of Pb(Zr_{0.53}Ti_{0.47})O₃ thin films grown on LaNiO₃ coated Ti substrates** [6984-83]
X. Yang, J. Cheng, S. Yu, Z. Meng, Shanghai Univ. (China)

- 6984 2D **Characteristics of the composite films formed by CdTe electrodeposited on the ordered porous Al₂O₃** [6984-84]
Z. Song, J. Zhang, C. You, H. Yan, B. Yu, Y. Shen, Shanghai Univ. (China)
- 6984 2E **Characteristic of ZnO films prepared by the sol-gel process** [6984-85]
G. He, B. Huang, S. Wu, J. Li, Xiamen Univ. (China)
- 6984 2F **Voltage-controlled change of MIS reflectivity in visible and near infrared band** [6984-86]
J. H. Qin, J. H. Ma, Z. M. Huang, J. H. Chu, Shanghai Institute of Technical Physics (China)
- 6984 2G **Crystallization of manganese cobalt nickelate films prepared by chemical deposition** [6984-87]
Y. Ge, Z. Huang, Y. Hou, T. Li, J. Chu, Shanghai Institute of Technical Physics (China)
- 6984 2H **The structural and electrochemical properties of tin oxide films prepared by RF magnetron sputtering** [6984-88]
M. Cai, J. Song, L. Zhang, Q. Wu, S. Wu, Xiamen Univ. (China)
- 6984 2I **Study of final polishing slurry for silicon substrate in ULSI** [6984-89]
W. Di, M. Yang, Shijiazhuang Railway Institute (China); Y. Liu, Hebei Univ. of Technology (China)
- 6984 2J **Substrate effect on the growth and thermal electrical properties of vanadium oxide thin films** [6984-90]
X. Wei, Z. Wu, X. Xu, T. Wang, J. Tang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
- 6984 2K **Influence of substrate temperature on the morphology and thermal resistance of vanadium oxide thin films** [6984-91]
X. Wei, Z. Wu, T. Wang, X. Xu, J. Tang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
- 6984 2L **Properties of homoepitaxial 4H-SiC and characteristics of Ti/4H-SiC Schottky barrier diodes** [6984-92]
G. Chen, Nanjing Univ. (China) and Nanjing Electronic Devices Institute (China); Z. Y. Li, S. Bai, Nanjing Electronic Devices Institute (China); P. Han, Nanjing Univ. (China)
- 6984 2M **CVD growth of Ge films on graded Si_{1-x}Ge_x: C buffers** [6984-93]
R. H. Wang, P. Han, Q. Mei, J. Wu, R. P. Ge, Z. L. Xie, X. Q. Xiu, S. L. Gu, Y. Shi, R. Zhang, Y. D. Zheng, Nanjing Univ. (China)
- 6984 2N **MOCVD growth and annealing characteristics of Mg-doped AlGaN films** [6984-94]
J. Yao, P. Han, Z. L. Xie, B. Liu, R. Zhang, R. L. Jiang, Q. J. Liu, F. Xu, Nanjing Univ. (China); H. M. Gong, Shanghai Institute of Technical Physics (China); Y. Shi, Y. D. Zheng, Nanjing Univ. (China)
- 6984 2O **The study of ZnO thin film fabricated by low temperature wet chemical method and its optical properties** [6984-95]
S. Wu, W. Sang, B. Wang, Y. Zhao, J. Min, Y. Lu, Shanghai Univ. (China)

- 6984 2P **Study of Si/SiO₂ hybrid antireflective coatings on SLD prepared by DSEBET** [6984-96]
M. X. Sun, M. Q. Tan, M. Zhao, Institute of Semiconductors (China)
- 6984 2Q **Simulation of SiC deposition in a hot wall CVD reactor** [6984-97]
W. Jia, Y. Zhang, Y. Zhang, R. Jia, H. Guo, Xidian Univ. (China)
- 6984 2R **Wurtzite structure high Mg content ZnMgO thin films deposited by oxygen-plasma enhanced pulsed laser deposition** [6984-98]
Y. Gu, X. Li, Shanghai Institute of Ceramics (China); J. F. Kong, Shanghai Jiao Tong Univ. (China); C. Yang, Shanghai Institute of Ceramics (China); W. Z. Shen, Shanghai Jiao Tong Univ. (China); Y. W. Zhang, W. D. Yu, X. D. Gao, Shanghai Institute of Ceramics (China)
- 6984 2S **Thick and adherent (cBN/nano-diamond)₃ multilayer films deposited by RF magnetron sputtering** [6984-99]
H. Q. Li, Hefei Univ. of Technology (China); K. M. Leung, W. J. Zhang, City Univ. of Hong Kong (Hong Kong China)
- 6984 2T **The properties of ZnO thin films fabricated by ion beam sputtering and RF magnetron sputtering** [6984-100]
X. X. He, H. Q. Li, J. B. Gu, S. B. Wu, B. Cao, Hefei Univ. of Technology (China)
- 6984 2U **Photocurrent generated by nanometer silicon crystallites** [6984-101]
R. Zhang, Shanghai Maritime Univ. (China) and Shanghai Jiao Tong Univ. (China); X. Y. Chen, W. Z. Shen, Shanghai Jiao Tong Univ. (China)
- 6984 2V **MOCVD growth of GaN films on Si-rich SiN_x nanoisland patterned sapphire** [6984-102]
Z. Fang, S. Li, J. Kang, Xiamen Univ. (China)
- 6984 2W **Study of the electrodeposition of self-assembled ZnO-surfactant hybrid thin films** [6984-103]
X. Gan, Shanghai Institute of Ceramics (China) and Graduate School of the Chinese Academy of Sciences (China); X. Gao, X. Li, Shanghai Institute of Ceramics (China)
- 6984 2X **Characterization of (001)-orientated polycrystalline α -HgI₂ films grown by hot wall physical vapor deposition** [6984-104]
Y. Zheng, W. Shi, G. Wei, J. Qin, S. Chen, L. Wang, Y. Xia, Shanghai Univ. (China)
- 6984 2Y **Preparation of polycrystalline HgI₂ films by PVD method under ultrasonic wave** [6984-105]
Y. Zheng, W. Shi, G. Wei, J. Qin, S. Chen, L. Wang, Y. Xia, Shanghai Univ. (China)
- 6984 2Z **Investigation of nanostructure on silicon by electrochemical etching** [6984-106]
L. Xu, J. You, East China Normal Univ. (China); L. Wang, East China Normal Univ. (China) and State Key Lab. of Transducer Technology (China)
- 6984 30 **Mechanics analysis of the multi-point-load process for the thin film solar cell** [6984-107]
Z. Wang, G. Wei, Z. Gong, Shanghai Univ. (China)

SESSION 4 APPLICATIONS OF THIN FILMS

- 6984 31 **Photon upconversion devices for imaging (Invited Paper)** [6984-108]
H. C. Liu, H. Luo, National Research Council Canada (Canada); D. Ban, Univ. of Waterloo (Canada); M. Buchanan, Z. R. Wasilewski, A. J. Springthorpe, P. J. Poole, National Research Council Canada (Canada)
- 6984 32 **Ultraviolet-to-infrared dual-band detectors based on quantum dot and heterojunction structures (Invited Paper)** [6984-109]
A. G. U. Perera, Georgia State Univ. (USA)
- 6984 33 **Extreme ultraviolet multilayer mirrors for astronomical observation (Invited Paper)** [6984-110]
Z. Wang, J. Zhu, R. Chen, J. Xu, F. Wang, Z. Zhang, W. Wu, L. Liu, H. Zhang, D. Xu, H. Jiang, L. Chen, Tongji Univ. (China); H. Zhou, T. Huo, Univ. of Science and Technology of China (China); M. Cui, Y. Zhao, Institute of High Energy Physics (China)
- 6984 34 **Surface properties and field emission of BN and BCN films (Invited Paper)** [6984-111]
T. Sugino, C. Kimura, H. Aoki, Osaka Univ. (Japan)
- 6984 35 **High-performance AlGaIn-GaN HEMT materials and devices grown and fabricated on Si substrates** [6984-112]
Z. H. Feng, J. Y. Yin, F. P. Yuan, B. Liu, Z. Feng, S. J. Cai, Hebei Semiconductor Research Institute (China)
- 6984 36 **Single dipole mode photonic crystal laser on InGaAsP/InP QW waveguide slab** [6984-113]
W. Zheng, M. Xing, G. Ren, X. Du, K. Wang, L. Chen, Institute of Semiconductors (China)
- 6984 37 **Mode analysis of photonic crystal polarization beam splitter and its application in integrated circuit design** [6984-114]
G. Ren, W. Zheng, Y. Zhang, K. Wang, X. Du, M. Xing, L. Chen, Institute of Semiconductors (China)
- 6984 38 **The whispering gallery mode in photonic crystal ring cavity** [6984-115]
M. Xing, W. Zheng, Y. Zhang, G. Ren, X. Du, K. Wang, L. Chen, Institute of Semiconductors (China)
- 6984 39 **Effects of oxygen partial pressure on the resistance switching properties of $\text{La}_{0.7}\text{Ca}_{0.3}\text{MnO}_3$ thin films prepared by pulsed laser deposition method** [6984-116]
W. Yu, X. Li, F. Wu, D. Shang, L. Chen, Shanghai Institute of Ceramics (China)
- 6984 3A **Preparation of Pd doped WO_3 films via sol-gel method and their gasochromic properties** [6984-117]
J. Shi, G. Wu, J. Shen, G. Gao, B. Zhou, X. Ni, X. Yang, Tongji Univ. (China)
- 6984 3B **Coherent amplification by multilayer nematic liquid crystal cell** [6984-118]
X. Sun, Y. Pei, F. Yao, Harbin Institute of Technology (China)
- 6984 3C **Study on the photoinduced current in nematic liquid crystal cell with alkanethiol self-assembled monolayer** [6984-119]
F. Yao, Y. Pei, X. Sun, Harbin Institute of Technology (China)

- 6984 3D **Multi-layer antireflection coatings for silicon solar cells using a sol-gel technique** [6984-120]
B. B. Shi, Z. Q. Ma, X. Tang, C. B. Feng, Shanghai Univ. (China)
- 6984 3E **Research of diamond-like carbon (DLC) films: promising candidate for absorber layer of solar cells** [6984-121]
M. Zhang, X. Cheng, C. Chen, Xiamen Univ. (China)
- 6984 3F **Ohmic contacts with heterojunction structure to N-type 4H-silicon carbide by N⁺ polysilicon film** [6984-122]
H. Guo, Q. Feng, Xidian Univ. (China); D. Qiao, Northwestern Polytechnical Univ. (China); Y. Zhang, Y. Zhang, Xidian Univ. (China)
- 6984 3G **Tunable microwave band-stop filters using ferromagnetic resonance** [6984-123]
B. Zhao, Y. Shi, H. Zhong, H. Wang, Univ. of Electronic Science and Technology of China (China)
- 6984 3H **Design and properties of STW resonators on AT-quartz** [6984-124]
H. Wang, Y. Shi, H. Zhong, X. Jiang, Univ. of Electronic Science and Technology of China (China)
- 6984 3I **Research on the realization of high precision RC array through IC thin film technology** [6984-125]
F. Sun, Harbin Institute of Technology (China); W. Jiang, D. Wu, S. Zhang, Heilongjiang Bada Universal Semiconductor Inc. (China)
- 6984 3J **Photovoltaic properties of near-infrared absorbing manganese (II) phthalocyanine sensitized mesoporous TiO₂ films** [6984-126]
F. Zheng, Shanghai Univ. (China); Y. Shen, Shanghai Univ. (China) and Shanghai Institute of Technical Physics (China); F. Gu, J. Zhang, J. Zhang, Shanghai Univ. (China)
- 6984 3K **The heterojunction structure of n-Si/p-nanocrystalline diamond film for UV detection** [6984-127]
L. Wang, J. Liu, R. Xu, J. Huang, W. Shi, Y. Xia, Shanghai Univ. (China)
- 6984 3L **Electrical properties of radiation detector based on polycrystalline mercuric iodide (HgI₂) thick film** [6984-128]
W. Shi, Y. Zheng, Y. Guo, Y. Zhang, H. Xu, L. Wang, Y. Xia, Shanghai Univ. (China)
- 6984 3M **Fabrication and characterization of 3D pn junction structure for radiation detection** [6984-129]
T. Liu, T. Liu, J. Li, J. Lin, X. Chen, X. Guo, P. Xin, S. Xu, East China Normal Univ. (China); W. Xue, Shanghai Institute of Microsystem and Information Technology (China); L. Wang, East China Normal Univ. (China) and State Key Lab. of Transducer Technology (China)
- 6984 3N **A beam operated MEMS variable optical attenuator** [6984-130]
S. Ding, East China Normal Univ. (China); X. Zhang, ETERN Optoelectronics Tech Co., Ltd. (China); X. Chen, L. Wang, East China Normal Univ. (China)
- 6984 3O **Surface modified polysiloxane as sensitive coating for QCM sensors** [6984-131]
Z. Ying, Y. Jiang, X. Du, G. Xie, Y. Yang, H. Tai, Univ. of Electronic Science and Technology of China (China)

- 6984 3P **Comparative NH₃-sensing characteristic studies of PANI/TiO₂ nanocomposite thin films doped with different acids** [6984-132]
H. Tai, Y. Jiang, G. Xie, J. Yu, Z. Ying, X. Chen, Univ. of Electronic Science and Technology of China (China)
- 6984 3Q **Fabrication and NO₂ sensing properties of ChemFET sensors with self-assembly PAN/PSSA sensitive films based on nano-Au surface** [6984-133]
Y. Jiang, H. Tai, G. Xie, J. Yu, Univ. of Electronic Science and Technology of China (China)
- 6984 3R **High performance NH₃ gas sensor based on ordered conducting polymer ultrathin film** [6984-134]
J. Xu, Y. Jiang, J. Yu, Y. Yang, Z. Ying, Univ. of Electronic Science and Technology of China (China)
- 6984 3S **Free modulation of defect states in multilayer structures consisting of epsilon-negative material and mu-negative material** [6984-135]
Q. Wang, C. Yan, L. Zhang, Y. Cui, Southeast Univ. (China)
- 6984 3T **High diffraction efficiency for multi-layer dielectric gratings with rectangular groove** [6984-136]
W. Kong, M. Yun, C. Ling, X. Sun, Qingdao Univ. (China); J. Shao, Z. Fan, Shanghai Institute of Optics and Fine Mechanics (China)
- 6984 3U **Rigorous coupled-wave analysis for the optical character of multi-layer dielectric thin film** [6984-137]
W. Kong, C. Ling, M. Yun, X. Sun, Qingdao Univ. (China); J. Shao, Z. Fan, Shanghai Institute of Optics and Fine Mechanics (China)
- 6984 3V **The optimization of zero-order diffractive filters for security imaging applications** [6984-138]
D. Zhang, Y. Huang, Z. Ni, J. Chen, S. Zhuang, Univ. of Shanghai for Science and Technology (China); H. He, Shanghai Institute of Optics and Fine Mechanics (China)

Author Index

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Introduction

In recent years, thin film science has grown world-wide into a major research area. The importance of synthesizing new materials for industry has resulted in a tremendous increase of innovative thin film processing technologies. Currently, this development goes hand-in-hand with the explosion of scientific and technological breakthroughs in nanotechnology, microelectronics, and optics. The rapidly changing needs for thin film materials and devices are creating new opportunities for the development of new materials, processes, and technologies.

This conference (TFPA2007) follows the strong tradition of five previous conferences and focuses on the recent advances in the fundamental and applied aspects of thin films from the growth, characterization, and physics to the device performance and reliability. The main objective of the conference is to provide a joint forum for both the thin film physics researchers and the thin film application community to exchange their knowledge by presenting their latest results and by carrying out in-depth technical discussions. A series of thin film materials, technologies and applications, such as nanostructure films, ferroelectric and piezoelectric films, magnetic films, superconductor films, organic and polymer films, micro/nano-fabrications and characterizations, photonics and MEMS devices, solar cells, and others, are the concern of their investigations. A close combination of the experimental and theoretical investigations is a prevalent feature of these investigations.

A total of 138 papers were accepted for publication in these proceedings, which were selected from the 162 presentations on the conference. The content of the invited and contributed papers is a reflection of advanced research on thin film physics and applications. We believe that the publication of this proceedings volume will promote future research activities that will increase knowledge and understanding of thin films in various fields.

Wenzhong Shen
Junhao Chu



