

Selected Publication List

- 1. “Progress in Development on CdZnTe X-ray Detector”**
Yongdong Zhou, Ning Zhou, Linhu Zhang, Jin Wang, Aihua Wan, Proceedings of SPIE, “Semiconductor Photodetectors III”, Vol. 6119, 2006, PP61190H-1~8
- 2. “HgTe/HgCdTe Superlattices Grown on CdTe/Si by Molecular Beam Epitaxy for Infrared Detection”**
Y. SELAMET, Y.D. ZHOU, J. ZHAO, Y. CHANG, C.R. BECKER, R. ASHOKAN, C.H. GREIN, and S. SIVANANTHAN, “Journal of ELECTRONIC MATERIALS”, Vol. 33, No. 6, 2004, PP503-508
- 3. “Near-Bandgap Infrared Absorption Properties of HgCdTe”**
Y. CHANG, G. BADANO, J. ZHAO, Y.D. ZHOU, R. ASHOKAN, C.H. GREIN, and V. NATHAN, “Journal of ELECTRONIC MATERIALS”, Vol. 33, No. 6, 2004, PP709-713
- 4. “HgCdTe Photoconductive Mixers for 3-15 Terahertz”**
Albert Betz, Rita Boreiko, Yongdong Zhou, Jun Zhao, Yusuf Selamet, Yong Chang, Renganathan Ashokan, Charlie Bucker, and Sivalingam Sivananthan, “Proceedings of the 14th International Symposium on Space Terahertz Technology”, 2003
- 5. “HgCdTe for far-infrared heterodyne detection”**
Y. D.Zhou, J. Zhao, R. Boreiko, Y. Chang, Y. Selamet, R. Ashokan, C.R. Becker, Albert Betz, S. Sivananthan, Proceedings of SPIE, “Materials for Infrared Detectors III”, Vol. 5209, 2003, PP99-106
- 6. “Photovoltaic Infrared Detectors Based on HgTe/HgCdTe Superlattices Grown on CdTe/Si by Molecular Beam Epitaxy”**
Y.-D. Zhou, J. Zhao, Y. Chang, R. Ashokan, R.T. Boreiko, C.H. Grein, A.L.Betz and S. Sivananthan, the Extended Abstract proceeding of 2003 U.S. Workshop on the Physics and Chemistry of II-VI Materials, September 17-19, 2003, New Orleans, Louisiana, PP.13-16
- 7. “Gold Diffusion in Mercury Cadmium Telluride Grown by Molecular Beam Epitaxy”**
Y. Selamet, R. Singh, J. Zhao, Y. D. Zhou, S. Sivananthan and N. Dhar, Proceedings of SPIE, “Materials for Infrared Detectors III”, 2003

8. **“Far-infrared Detector based on HgTe/HgCdTe Superlattices”**
Y. D.Zhou, C.R. Becker, Y. Selamet, Y. Chang, R. Ashokan, R.T. Boreiko, T. Aoki, David J. Smith, A.L.Betz, S. Sivananthan, *Journal of Electronic Materials*, Vol 32(7), July 2003, PP 608-614
9. **“Far-Infrared Focal Plane Arrays”**
A.L. Betz, R.T. Boreiko, S. Sivananthan and Y.D. Zhou, in Proceedings FAR-IR, SUB-MM &MM DETECTOR TECHNOLOGY WORKSHOP, Wolf J., Farhoomand J. and McCreight C.R. (eds.). NASA/CP-211408, 2002
10. **“Progress in Far-infrared Detection Technology”**
Y.D.Zhou, C.R. Becker, R. Ashokan, Y. Selamet, Y. Chang, R.T. Boreiko, A.L.Betz, S. Sivananthan, *Proceedings of SPIE, “Materials for Infrared Detectors II”*, Vol.4795, PP121-128, 2002
11. **“MBE growth of HgCdTe HOT detector heterostructures”**
J. Zhao, Y.D.Zhou, G. Banano, Y. Selamet, C.H. Grein, S. Sivananthan, *Proceedings of SPIE, “Materials for Infrared Detectors II”*, Vol.4795, PP82-87, 2002
12. **“FAR-INFRARED DETECTOR BASED ON HgTe/HgCdTe SUPERLATTICES”**
Y. D. Zhou, C.R. Becker, Y. Selamet, Y. Chang, R. Ashokan, R.T. Boreiko, T. Aoki, D. J. Smith, A.L.Betz, S. Sivananthan, the Extended Abstract proceeding of 2002 U.S. Workshop on the Physics and Chemistry of II-VI Materials, November 13-15, 2002, San Diego, California, PP.21-24
13. **“COMPOSITION, THICKNESS AND URBACH SLOPE DISTRIBUTION OF HgCdTe MBE WAFERS BY Infrared microscope mapping”**
Y. Chang, G.Badano, J.Zhao, Y. D. Zhou, C.H. Grein and S. Sivananthan, the Extended Abstract proceeding of 2002 U.S. Workshop on the Physics and Chemistry of II-VI Materials, November 13-15, 2002, San Diego, California, PP.123`
14. **“The Material Construction Design and Numerical Simulation of GaInAsSb Multi-junction PIN Photovoltaic Infrared Detector”**
LIANG Bangli^{1,2}, XIA Guanqun¹, ZHOU Yongdong², FAN Shuping²
Chinese Journal of Research and Progress of Solia State Electronics, 2002, Vol(1)

15. **“Sputtering Growth of BaTiO₃ Thin Films and The Films’ Property Studies”**
WU Cai-Yun JI Xiao-Bing FAN Shu-Ping ZHOU Yong-Dong CHU Jun-Hao
WANG Kang-Jie, *Chinese Journal of Research and Progress of Solid State Electronics*, 2001. Vol (3), pp.361-365
16. **“The Sputtering Deposition and the X-ray Photoelectron Spectroscopy Study for the CdTe Thin Film”**
ZHOU Yong-Dong Li Yan-Jing Wu Xiao-shan XU Guo-Sheng FANG Jia-Xiong
TANG Ding-Yuan, *Chinese Journal of Infrared Technology*, 2001 PP 8~10
17. **“The Fabrication and Study of the HgCdTe MIS Device of CdTe+ZnS Double Insulator Films”**
ZHOU Yong-Dong FANG Jia-Xiong. LI Yian-Jin. GONG Hai-mei. WU Xiao-Shen. JIN Xiu-Fan. TANG Ding-Yuan, *Chinese Journal of Infrared Millimeter Waves*, Aug. 2001, PP 249~252
18. **“The Sputtering Deposition and the X-ray Photoelectron Spectroscopy Study for the ZnS Dielectric Thin Film”**
ZHOU Yong-Dong FANG Jia-Xiong Li Yan-Jing Xu Guo-Sheng TANG Ding-Yuan, *CHINESE JOURNAL OF INORGANIC MATERIALS*, 2000, 15(6) pp1127-1130
19. **“THE STUDY OF THE INTERFACE OF THE SPUTTERING CDTE DIELECTRIC FILM AND HGCdTE CRYSTAL”**
ZHOU Yong-Dong ZHAO Jun LI Yan-Jin FANG Jia-Xiong,
Chinese Journal of Materials Research, Vol.14, No.2, April 2000, PP221-224
20. **“The study of the Influence of Surface Coating of ZnS on the HgCdTe Device”**
ZHOU Yong-Dong FANG Jia-Xiong TANG Ding-Yuan,
Chinese Journal of Infrared Technology, Vol.22, No.3, May, 2000, PP31-34
21. **“The Study of the Two Kinds of Surface Passivation Ways for the n-HgCdTe Photoconductor device”**
ZHOU Yong-Dong FANG Jia-Xiong TANG Ding-Yuan,
Chinese Journal of Infrared Millimeter Waves, Vol.19, No.3, June, 2000, PP233-236

22. **“Effects of Oxygen Pressure and Substrate Temperature on ZnO: Al Film by Pulsed Laser Deposition”**
GE Shuibing, CHENG Shanhua, NING Zhaoyuan, SHEN Mingraong, GAN Zhaoqiang, ZHOU Yongdong, CHU Junhao, *Chinese JOURNAL OF FUNCTIONAL MATERIALS*, Vol.S1, 2000,
23. **“EFFECTS OF DOPANT RATIO ON ZnO:Al FILM BY PULSED LASER DEPOSITION”**
GE Shui-bing, CHENG Shan-hua, NING Zhao-yuan, SHEN Ming-rong, GAN Zhao-qiang, Zhou, Yong-dong, CHU Jun-hao, *Chinese JOURNAL OF FUNCTIONAL MATERIALS AND DEVICES*, Vol.1, 2000,
24. **“Surface Recombination Velocity of the HgCdTe Surface Passivated with Sputtering CdTe Film”**
ZHOU Yong-Dong Zhao Jun GONG Hai-Mei LI Yan-Jin FANG Jia-Xiong, *Chinese Journal of Infrared Millimeter Waves*, Vol.19, No.1, February, 2000, PP71-74
25. **“The first exploration to the teaching of the ceramic semiconductor and its application”**
ZHOU Yong-Dong,
Chinese Journal of Suzhou University, Natural Science, Vol.14, No.6, 1998, PP98-100
26. **“Photoconductivity Decay Study on the ZnS Passivated HgCdTe Surface”**
ZHOU Yong-Dong Zhao Jun GONG Hai-Mei LI Yan-Jin FANG Jia-Xiong, *Chinese Journal of ACTA PHOTONICA SINICA*, Vol.27, No.z2, September, 1998, PP102-106
27. **“The Device Passivation Study for the Use of HgCdTe Focal Plane Arrays”**
ZHOU Yong-Dong FANG Jia-Xiong Ye Hua-Wei Fan Guang-Yu TANG Ding-Yuan, *Chinese Journal of Functional Materials*, Vol.29, Supplement, September, 1998, PP113-114
28. **“The Sputtering Deposition of CdTe Film and the Use of the Film for the Surface Passivation of n-HgCdTe Photoconductor device”**

ZHOU Yong-Dong FANG Jia-Xiong JIN Xiu-Fang Wang Ji-Yuan TANG Ding-Yuan, *Chinese Journal of Functional Materials*, Vol.29, Supplement, September, 1998, PP467-469

29. **“The sputtering growth of ZnS and the effects on the carrier transfer property in the n-HgCdTe Hall device”**

ZHOU Yong-Dong FANG Jia-Xiong Ye Hua-Wei Fan Guang-Yu TANG Ding-Yuan, *Chinese Journal of Functional Materials*, Vol.29, Supplement, September, 1998, PP470-472

30. **“Temperature Induced Quenching of the Raman Scattering on CdTe Crystal Surface”**

ZHOU Yong-Dong, FANG Jia-Xiong, Sheng Jie, Zhao Jun, Lu Hui-Qing, TANG Ding-Yuan, *Chinese Journal of ACTA OPTICA SINICA*, Vol.17, No.3, March, 1997, PP382-384

31. **“The Influence of Surface Treatment on the CdTe Raman Spectra”**

ZHOU Yong-dong, FANG Jia-Xiong, Sheng Jie, Zhao Jun, Lu Hui-Qing, TANG Ding-Yuan, *Chinese Journal of Research and Progress of Solid State Electronics*, Vol.17, No.3, Aug., 1997, PP281-285

32. **“The Efficient Visible Light from the Surface Layer of Porous Silicon”**

ZHOU Yong-Dong, JIN Yi-Xin, *CHINESE JOURNAL OF INORGANIC MATERIALS*, Vol. 12, NO. 3, Jun., 1997, PP430-434

33. **“The Raman Scattering Spectra of the Surface of CdTe Bulk”**

ZHOU Yong-Dong, FANG Jia-Xiong, Sheng Jie, Zhao Jun, Lu Hui-Qing, TANG Ding-Yuan, *The Research and Progress of the Chinese Solid State Optical property*, ISBN7-309-01791-9/0-173, PP129, The Proceedings of the 8th National Conference on Chinese Solid State Optical Property, 1996, PP129

34. **“The Microstructure and the Luminescence Origin of the Porous Silicon”**

ZHOU Yong-Dong, JIN Yi-Xin, *Chinese Journal of Research and Progress of Solid State Electronics*, Vol.16, No.4, November, 1996, PP331-335

35. **“Luminescence of Rare-Earth Erbium Ion-implanted porous silicon”**

LI Yi, ZHOU Yong-Dong, *Chinese Journal of Luminescence*, Vol.17, No.1, 1996, PP33-37

36. **“The Intensified Er³⁺ Emission from Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, LI Yi, Jian Hong, LI Jue-Sheng, *JOURNAL OF THE CHINESE CERAMIC SOCIETY*, Vol.24, No.3, June, 1996, PP352-354
37. **“The Influence of Anodization on the Er³⁺ Luminescence from Si:Er³⁺ Material”**
ZHOU Yong-Dong, JIN Yi-Xin, LI Yi, JIANG Hong, LI Ju-Sheng, *CHINESE JOURNAL OF INORGANIC MATERIALS*, Vol.11, No.2, June, 1996, PP325-328
38. **“1.54μm EMISSION FROM POROUS SILICON”**
ZHOU Yong-Dong, JIN Yi-Xin, *Chinese Journal of ACTA PHOTONICA SINICA*, Vol.25, No.5, January, 1996, PP451-455
39. **“MICROSTRUCTURE AND LATTICE DISTORTION OF EFFICIENT VISIBLE LIGHT-EMITTING POROUS SILICON”**
ZHOU Yong-Dong, JIN Yi-Xin, *Chinese Journal of ACTA PHOTONICA SINICA*, Vol.25, No.5, April, 1996, PP428-433
40. **“INFLUENCE OF ION IMPLANTATION ON THE EFFICIENT VISIBLE PHOTOLUMINESCENCE OF POROUS SILICON”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, LI Yi, LI Ju-Sheng, *Chinese Journal of ACTA PHOTONICA SINICA*, Vol.25, No.1, January, 1996, PP20-24
41. **“Luminescence of Er-implanted porous silicon”**
LI Yi, ZHOU Yong-Dong, LI Ju-Sheng, JIANG Hong, JIN Yi-Xin, *Solid state communications*, Vol.96, No.5, 1995, PP317-320
42. **“The Anodization Induced 1.54μm Luminescence enhance from the Si:Er³⁺ Material”**
ZHOU Yong-Dong, JIN Yi-Xin, LI Yi, JIANG Hong, LI Ju-Sheng, *Chinese Journal of Fudan University, Natural Science*, Vol.34, Supplement, September, 1995, PP98-99
43. **“The X-ray Double Crystal Study on the Microstructure of Luminous Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, *Chinese Journal of Functional Materials*, Vol.26, Supplement, September, 1995, PP137-139

44. **“Visible Luminescence on the Unpolished Surface of Polycrystal Silicon Wafer after Anodization”**
ZHOU Yong-Dong, JIN Yi-Xin, *JOURNAL OF THE CHINESE CERAMIC SOCIETY*, Vol.23, No.6, December, 1995, PP689-692
45. **“The Anodization Induced 1.54 μ m Luminescent Intensification of the Si:Er³⁺ Material”**
ZHOU Yong-Dong, JIN Yi-Xin, LI Yi, JIANG Hong, LI Ju-Sheng, *Chinese Journal of Infrared Millimeter Waves*, Vol.14, No.4, August, 1995, PP363-366
46. **“The IR Photoluminescence Characterization of the Efficient Visible Light-Emitting Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, *Chinese Journal of Infrared Millimeter Waves*, Vol.14, No.1, February, 1995, PP85-89
47. **“The Intensified Er³⁺ Emission from Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, LI Yi, JIANG Hong, LI Ju-Sheng, *The Proceedings of the Chinese 7th National Conference on Optical Fiber Communication*, ISBN320323, October 1995, PP891~893
48. **“A Study on Visible Luminescence of Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, YUAN Jin-Shang, *CHINESE SCIENCE BULLETIN*, Vol.39, No.17, September 1994, PP1430-1434
49. **“Visible light emitting from the surface layer on a porous layer”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, *Journal of Luminescence*, 60&61 (1994), PP404-408
50. **“The Study on the Visible Light Emitting from Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, ZHANG Bao-Ling, ZHOU Tiang-Ming, *Chinese Journal of Semiconductor Information*, Vol.30, No.6, December, 1993, PP6-12
51. **“Visible Light from the Anodic Oxidated Polycrystal Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, ZHANG Bao-Ling, ZHOU Tiang-Ming, *Extended Abstracts of the 1993 International Conference on Solid State Devices and Materials*, Makuhari, Japan, 1993, pp639-641, (ISBN 4-930813-55-7);

52. **“A Study on Mechanism of Visible Luminescence from Porous Silicon”**
ZHOU Yong-Dong, JIN Yi-Xin, NING Yong-Qiang, YUAN Jin-Shan,
*MRS Volume 313-Magnetic Ultrathin Films, Multilayers and Surface/Magnetic
Interfaces-Physics and Characterization (2 volum set)*, October8, 1993