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Contents

Part One

xxiii xxv xxvii	Conference Committee Symposium Committees Introduction
	SESSION 5-1
7658 02	Dependence of silicon thin-film growth characteristics on substrate temperature [7658-191] L. Lin, H. Zhang, S. Jiang, Sun Yat-sen Univ. (China)
7658 03	Assess image blur in photoelectric imaging system [7658-240] X. Xie, Institute of Optics and Electronics (China) and Graduate Univ. of Chinese Academy of Sciences (China); J. Zhou, Q. Wu, Institute of Optics and Electronics (China)
7658 04	Photoluminescence and photovoltaic performance of poly3-octylthiophene and poly3-alkylthiophene [7658-85] L. Li, F. Zhang, C. Guan, Z. Zhuo, B. Cao, Y. Liu, Beijing Jiaotong Univ. (China)
7658 05	Research progress on optical wireless communication at Xi'an University of Technology [7658-168] X. Ke, L. Yang, Xi'an Univ. of Technology (China)
7658 06	Energy transfer from both triplet and singlet energy levels of PVK to DCM2 induced by heavy-ion [7658-255] J. Luo, L. Xiao, Z. Chen, B. Qu, Q. Gong, Peking Univ. (China)
7658 07	SAW ethanol gas sensors based on cryptophane-A sensitive film [7658-87] P. Sun, Univ. of Electronic Science and Technology of China (China) and Sichuan Agricultural Univ. (China); Y. Jiang, G. Xie, X. Du, Univ. of Electronic Science and Technology of China (China)
7658 08	Realization of p-type conductivity in ZnO by (N, Ag) dual acceptor codoping: a first-principles study [7658-21] Z. Xiong, L. Chen, Q. Wan, D. Li, Jiangxi Science and Technology Normal Univ. (China)
7658 09	Electrical and optical properties of amorphous vanadium oxide thin films deposited by DC magnetron sputtering [7658-132] Z. Luo, Z. Wu, M. Du, X. Xu, J. Yu, T. Wang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 0A	Optimizing the growth condition of optoelectronic material (ZnO film) by imaging technology [7658-180] J. Wang, S. Pan, Y. Zhang, Dalian Univ. of Technology (China)

/658	OB Effect of variable substrate temperature for SrTiO₃ thin films using pulsed laser deposition [7658-71] X. Wan, L. Wang, X. Su, J. Chen, L. Kong, Beijing Univ. of Technology (China)
7658	Numerical simulation of multilayer organic light-emitting devices [7658-187] H. Gao, H. Rao, Y. Hu, J. Ju, Y. He, Y. Wan, Univ. of Electronic Science and Technology of China (China)
7658	The low-cost preparation of pyramid-like texture ZnO thin films and the application as a front electrode in hydrogen amorphous silicon solar cells [7658-166] Y. H. Hu, L. F. Wang, H. J. Xu, Y. C. Chen, W. H. Jiang, Jingdezhen Ceramics Institution (China)
	SESSION 5-2
7658	OE Substrate temperature influence on the properties of InGaZnO thin films grown by PLD technique [7658-70] J. Chen, L. Wang, X. Wan, X. Su, L. Kong, Beijing Univ. of Technology (China)
7658	OF Polymer PSQ-L notch filter fabricated by simple nanoimprint process [7658-294] J. Teng, Dalian Univ. of Technology (China) and Ghent UnivIMEC (Belgium); X. Han, H. Zhang, J. Wang, X. Jian, Dalian Univ. of Technology (China); S. Scheerlink, G. Morthier, R. Baets, Ghent UnivIMEC (Belgium); M. Zhao, Dalian Univ. of Technology (China)
7658 (Effect of triplet energy and transporting property of electron transporting material on iridium complex yellow phosphorescent organic light-emitting devices [7658-183] W. Wen, J. Yu, S. Chen, C. Huang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658	Solvothermal synthesis of platinum nanoparticles and their SERS properties [7658-290] Y. Yang, Z. Huang, D. Li, Shanghai Institute of Ceramics (China); M. Nogami, Nagoya Institute of Technology (Japan)
7658	Ol Theoretical and experimental demonstration of phase locking technology by utilizing cubic susceptibility medium [7658-232] L. Zhao, J. Sun, Huazhong Univ. of Science and Technology (China)
7658	OJ Steady enhancement of organic solar cell performance by doping phosphorescent iridium complex [7658-189] J. Huang, J. Yu, H. Wang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658	The application of ALD process on special fiber [7658-256] G. Wei, R. Zhang, P. Lang, Beijing Univ. of Posts and Telecommunications (China)
7658	OL Research on high-speed single photon detector [7658-37] C. Wang, H. Yang, D. Wang, Ctr. for Space Science and Applied Research (China); H. Ma, Institute of Physics (China) and Beijing Univ. of Posts and Telecommunications (China); K. Luo, Institute of Physics (China); Z. Sun, G. Zhai, Ctr. for Space Science and Applied Research (China)

7658 01	Simple defogging method for outdoor images based on physical model [7658-81] J. Guo, X. Wang, C. Hu, C. Yang, Dalian Naval Academy (China)
7658 0	Quantitative analysis on flyback region problem of 1D transmissive liquid crystal optical phased array devices [7658-269] L. Xu, Z. Huang, Univ. of Electronic Science and Technology of China (China)
	SESSION 5-3
7658 0	Nano-optical microscopy: now and its industrialization [7658-268] S. Wu, Z. Wang, J. Zhang, C. Xu, H. Li, S. Pan, Dalian Univ. of Technology (China)
7658 C	Study of the transfer function of atmosphere to operation range of IRFPA [7658-33] W. Dong, Y. An, Xi'an Univ. of Technology (China); W. Chen, Xi'an Institute of Applied Optics (China)
7658 0	Thickness effect and etching implement of silicon substrate of LiTaO ₃ thin film infrared detector [7658-555] D. Zhang, W. Luo, Y. Bao, F. Gao, W. Qian, Civil Aviation Flight Univ. of China (China)
7658 C	Realization of large open circuit voltage in organic photovoltaic cells by introducing a fluorescent dye layer [7658-236] N. Wang, J. Yu, Y. Zang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 (Electroluminescence performance of organic light-emitting diode with molybdenum trioxide inside hole transport layer [7658-148] Y. Zou, Z. Deng, Z. Lü, Z. Chen, Y. Yin, H. Du, Y. Wang, Beijing Jiaotong Univ. (China)
7658 (Fraunhofer diffraction of the object with inclined plane [7658-65] A. Zhao, Henan Agricultural Univ. (China)
7658 C	U The research and analysis of TDICCD dynamic driving design [7658-78] Y. Cheng, T. Li, Beijing Institute of Space Mechanics & Electricity (China)
7658 0	V Research on accelerometer based on multi-mode interference [7658-48] Q. Zhou, C. Hou, G. Yang, J. Bai, S. Zhao, Zhejiang Univ. (China)
7658 01	A novel chemically selective siloxane polymer for chemical vapor sensing [7658-43] J. Huang, Y. Jiang, X. Du, J. Bi, Univ. of Electronic Science and Technology of China (China)
7658 C	Investigation of bright spatial solitons in SBN: 75 photorefractive crystal [7658-128] Q. Guo, G. Deng, B. Liang, P. Li, Y. Li, X. Li, Hebei Univ. (China)

POSTER SESSION

7658 OY	Daytime star detection device using polarization and spectral filtering method [7658-231] G. Lan, Institute of Optics and Electronics (China) and Graduate Univ. of Chinese Academy of Sciences (China); W. Ma, F. Cheng, Institute of Optics and Electronics (China)
7658 OZ	Study of quantitative identification of infrared thermal wave testing based on BP neural
	networks [7658-556] Z. Wei, Xi'an Hi-Tech Research Institute (China); L. Tao, Qinzhou City Tech Research Institute (China); Y. Wei, Xi'an Hi-Tech Research Institute (China); Z. Min, Qinzhou City Tech Research Institute (China)
7658 10	Quantum teleportation and survey technology [7658-76] Z. Wang, Huaiyin Normal Univ. (China)
7658 11	Effect of carrier gases on growth of thick GaN films by hydride vapour phase epitaxy
	[7658-25] R. Wang, R. Yang, Hebei Univ. of Technology (China); J. Zhang, Tianjin Vocational Institute (China); Y. Xu, Q. Li, China Electronic Science of Technology Group Co., Ltd. (China); W. Wei, Hebei Univ. of Technology (China)
7658 12	Data processing based on 3D measurement system using disparity method [7658-250] S. Yang, North Univ. of China (China)
7658 13	Traceable dynamic calibration for CHAL-010 thermocouple [7658-251] X. Hao, L. Hao, S. Jiang, H. Zhou, North Univ. of China (China)
7658 14	Time constant measurement of thermocouple by use of modulated laser [7658-253] L. Hao, X. Hao, S. Jiang, H. Zhou, L. Huang, North Univ. of China (China)
7658 15	The design of mirror's temperature control system of three Antarctic Schmidt Telescopes
	[7658-09] J. Zhao, Nanjing Institute of Astronomical Optics & Technology (China) and Graduate Univ. of Chinese Academy of Sciences (China); D. Wang, X. Yuan, J. Wang, Nanjing Institute of Astronomical Optics & Technology (China)
7658 16	Viewing angle changeable display [7658-272] J. Leng, Z. Huang, W. Yang, X. Chen, Univ. of Electronic Science and Technology of China (China)
7658 17	Principle and design of small-sized and high-definition x-ray machine [7658-55] A. Zhao, Henan Agricultural Univ. (China)
7658 18	The impact model of cumulative damage on the detection threshold of space optical
	communication [7658-130] G. Chang, Y. Zhou, J. Ma, J. Zhou, B. Zhao, X. Wang, Harbin Institute of Technology (China); Y. Zhou, Wuhan Univ. of Science and Technology (China); X. Lv, Zhejiang Supcon Technology Co. (China)
7658 19	Dynamic MTF analysis and calculation of aerial camera [7658-228] J. Liao, Institute of Optics and Electronics (China) and Graduate Univ. of Chinese Academy of Sciences (China); X. Gao, Institute of Optics and Electronics (China)

7658 1B	Time information extraction of return signal for laser altimeter over ladder terrain [7658-14] W. Zhong, X. Feng, G. Wu, H. Zhou, Wuhan Univ. (China)
7658 1C	Identification of the active photo-excited carrier in reverse biased quantum dot resonant
	tunneling diode [7658-216] W. Wang, Shanghai Institute of Technical Physics (China); W. Wang, H. Chen, J. Zhou, Institute of Physics (China); D. Xiong, East China Normal Univ. (China)
7658 1D	Research on phase detection on two-dimensional position sensitive detector [7658-18] F. Xi, Chongqing Univ. (China) and Chongqing Technology and Business Univ. (China); L. Qin, L. Xue, T. Wu, Chongqing Univ. (China)
7658 1E	A real-time HCI system based on infrared tracking [7658-202] X. Liu, Y. Wang, Y. Liu, D. Weng, X. Hu, Beijing Institute of Technology (China)
7658 1F	Theoretical study on the cross sensitivity of fiber Bragg grating sensor affected by multi-
	external fields [7658-10] B. Luo, Univ. of Electronic Science and Technology of China (China) and Chongqing Univ. of Technology (China); M. Zhao, S. Wang, Chongqing Univ. of Technology (China); X. Zhou, Univ. of Electronic Science and Technology of China (China); N. Zhong, Chongqing Univ. of Technology (China)
7658 1G	Laser pumping magnetic resonance of theory research based on coherent population
	trapping [7658-26] Z. Yang, K. Chong, Q. Wang, C. Lei, C. Zheng, W. Sun, Harbin Engineering Univ. (China)
7658 1H	Preparation of negative electron affinity gallium nitride photocathode [7658-24] J. Qiao, Nanjing Univ. of Science and Technology (China) and Nanyang Institute of Technology (China); B. Chang, Y. Qian, Nanjing Univ. of Science and Technology (China); X. Du, Chongqing Univ. (China); Y. Zhang, X. Wang, Nanjing Univ. of Science and Technology (China)
7658 11	Research on effect of Kell coefficient on the quality of aerial photography [7658-230] Y. Fan, Institute of Optics and Electronics (China) and Graduate Univ. of Chinese Academy of Sciences (China); W. Ma, Institute of Optics and Electronics (China)
7658 1J	Luminescent properties of BaAl ₂ Si ₂ O ₈ :Eu ²⁺ , Mn ²⁺ phosphor for white LED [7658-120] C. Shen, K. Li, China Jiliang Univ. (China)
7658 1K	The extraction and identification of target signature based coherent wavelet space
	frequency domain filtering [7658-62] Z. Li, Northwestern Polytechnical Univ. (China) and Chinese Flight Test Establishment (China); G. Li, Xi'an Univ. of Arts and Science (China); M. Chen, Northwestern Polytechnical Univ. (China)
7658 1L	CVD diamond soft x-ray detectors [7658-129] L. Hou, G. Yang, S. Liu, Chinese Academy of Engineering Physics (China)

Investigation of DBR used in HB-LED [7658-42] Z.-Q. Li, Y.-N. Wang, X.-G. Wu, Y. Gu, Yanshan Univ. (China)

7658 1A

7658 1M	First-principles calculations for geometrical structures and electronic properties of nN-Mg codoped ZnO [7658-68] L. Chen, Z. Xiong, Q. Wan, D. Li, C. Zhao, Jiangxi Science and Technology Normal Univ. (China)
7658 1N	Influence of baffle on improving the thickness uniformity of thin film deposited by magnetron sputtering system [7658-206] H. Yu, Y. Jiang, T. Wang, Z. Wu, C. Chen, J. Jiang, H. Jing, Univ. of Electronic Science and Technology of China (China)
7658 10	Analysis of titanium and vanadium oxide thin film by method of reactive co-sputtering [7658-209] T. Wang, Y. Jiang, H. Yu, Z. Wu, Univ. of Electronic Science and Technology of China (China)
7658 1P	Photoluminescence investigation of InAs quantum dots in quantum well with different strain reducing layer [7658-08] L. Kong, Y. Zhou, R. Wang, C. Zhang, J. Yao, S. Wang, Zhejiang Ocean Univ. (China); J. Cai, Z. Wu, Xiamen Univ. (China)
7658 1Q	Laser active imaging-guided anti-tank missile system small-scale integration design [7658-246] M. Yan, X. Shan, Z. Qu, Changchun Institute of Technology (China)
7658 1R	Systematical investigations of annealing effects on electrical properties and thermal sensitivity characteristics of TiO ₂₋₆ thin films by DC reactive magnetron sputtering [7658-125] Y. Qiu, Z. Wu, Y. Ju, J. Jiang, Z. Luo, M. Du, Univ. of Electronic Science and Technology of China (China)
7658 1\$	A new method of building footprints detection using airborne laser scanning data and multispectral image [7658-241] Y. Luo, T. Jiang, S. Gao, X. Wang, Information Engineering Univ. (China)
7658 1T	Up-converion in bismuth doped fibers [7658-27] Y. Qiu, J. Wang, Y. Jin, China Jiliang Univ. (China)
7658 1U	Design of optimized quantum well infrared photodetector's structure including higher order effects [7658-266] J. Jin, C. Lin, Shanghai Institute of Technical Physics (China)
7658 1V	Liquid crystal writable gratings for beam steering [7658-214] Y. Gao, M. Li, Y. Shi, F. Ye, Luoyang Institute of Science and Technology (China)
7658 1W	Detection algorithm of infrared small target based on improved SUSAN operator [7658-292] X. Liu, S. Wang, J. Zhao, Hong Qing High-Tech Institute (China)
7658 1X	Analyzing the emission self-organized structure in gas discharge by photoelectric detect method [7658-16] S. Liu, F. Yang, J. Song, Y. Gu, L. Zhu, H. Ma, Agricultural Univ. of Hebei (China)

7658 1Y	Multi-feature fusion diagnosis for optoelectronic tracking devices using fuzzy measurement [7658-223]
	Y. Zhang, T. Zhang, X. Zhang, Chongqing Technology and Business Univ. (China); J. Xiao, Xuzhou Airforce College (China)
7658 1Z	Effect of temperature on the growth of vanadium oxide films deposited by DC reactive magnetron sputtering [7658-53]
	M. Du, Z. Wu, Z. Luo, X. Xu, J. Yu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 20	Measurement and analysis of modulation transfer function of the third generation low-light-level image intensifier [7658-162]
	J. Su, Xi'an Technological Univ. (China); X. Bai, Xi'an Technological Univ. (China) and Xi'an Institute of Applied Optics (China); F. Shi, Xi'an Institute of Applied Optics (China); R. Liu, Xi'an Technological Univ. (China); Z. Hu, Xi'an Institute of Applied Optics (China)
7658 21	Investigation of fabricating the films in the phase transition regime from amorphous to microcrystalline by MWECR CVD system [7658-175]
	Y. J. Xie, Y. H. Hu, R. X. Xiao, H. Gao, Jingdezhen Ceramics Institution (China); G. H. Chen, Beijing Univ. of Technology (China); H. J. Xu, Y. C. Chen, L. F. Wang, Jingdezhen Ceramics Institution (China)
7658 22	Inspection focus technology of space tridimensional mapping camera based on astigmatic method [7658-248]
	Z. Wang, L. Zhang, Changchun Institute of Optics, Fine Mechanics and Physics (China)
7658 23	Detection of weak and small infrered targets under complicated background [7658-242] J. Chen, Univ. of Electronic Science and Technology of China (China) and Sichuan Changhong Electric Co., Ltd. (China); J. Zhang, L. Deng, X. Niu, X. Wei, J. Xu, Sichuan Changhong Electric Co., Ltd. (China); J. Wu, Univ. of Electronic Science and Technology of China (China)
7658 24	Influences of process parameters of low frequency PECVD technology on intrinsic stress of silicon nitride thin film [7658-279]
	W. Li, Z. Kang, Univ. of Electronic Science and Technology of China (China); Y. Ye, Fuzhou Univ. (China); Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 25	Optical fiber sensor for nitroaromatic explosives based on fluorescence quenching [7658-161]
	F. Chu, Shanghai Univ. of Electric Power (China)
7658 26	Calculation of intrinsic surface acoustic wave velocity in LiNbO ₃ [7658-181] T. Liu, K. Yu, P. Wang, Beijing Univ. of Technology (China)
7658 27	Optimum cut direction of lithium niobate as substrate in surface acoustic wave devices [7658-182]
	K. Yu, T. Liu, Beijing Univ. of Technology (China)
7658 28	Study on the cloud layer height and properties in Hefei observed by lidar [7658-86] Z. Chen, W. Liu, Y. Zhang, J. He, J. Ruan, S. Li, Y. Cui, Anhui Institute of Optics and Fine

Mechanics (China)

7658 29	Analysis of properties of ZnCoO bulks by solid state reaction [7658-100] X. Su, L. Wang, J. Chen, X. Wan, L. Kong, Beijing Univ. of Technology (China)
7658 2A	Method of improving the accuracy of image motion measurement for panoramic aerial cameras [7658-186]
	G. Li, Changchun Institute of Optics, Fine Mechanics and Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); P. Jia, Changchun Institute of Optics, Fine Mechanics and Physics (China)
7658 2B	Research on anti-blooming driving timing for CCD video camera [7658-264] S. Mo, Q. Chen, Q. Liu, Sichuan Univ. (China)
7658 2C	Adaptive optimization agorithm for CDS control parameters of high-speed CCD [7658-263] S. Mo, Q. Liu, Sichuan Univ. (China)
7658 2D	Quadruple region extended displaying using mirror image [7658-01] K. Sakamoto, F. Kanazawa, Konan Univ. (Japan)
7658 2E	Glasses-free 3D display system using special grating film with view control effect [7658-02] K. Sakamoto, Y. Yatabe, Konan Univ. (Japan)
7658 2F	4-views tabletop flat display system for collaborative work on round table [7658-03] K. Sakamoto, T. Honda, Konan Univ. (Japan)
7658 2G	Light-weight monocular display unit for 3D display using polypyrrole film actuator [7658-04] K. Sakamoto, K. Ohmori, Konan Univ. (Japan)
7658 2H	Optical characteristics of 9, 10-diphenylanthracene nanocrystals fabricated by reprecipitation [7658-134]
	Z. Yuan, J. Yu, W. Ma, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 2I	Stereo matching based on SIFT descriptor with illumination and camera invariance [7658-101]
	H. Niu, X. Zhao, C. Li, Soochow Univ. (China); X. Peng, Shenzhen Univ. (China)
7658 2J	Studies on the lateral emission of erbium-doped fiber amplifiers [7658-226] D. Zhang, Changshu Institute of Technology (China); S. Tanabe, Kyoto Univ. (Japan)
7658 2K	Recursive SAM-based band selection for hyperspectral anomaly detection [7658-133] Y. He, D. Liu, S. Yi, Xi'an Research Institute of High Technology (China)
7658 2L	Threat assessment of aerial target in ultra-wide field of view infrared image [7658-91] Y. Zhou, M. Xing, Y. Wang, Ordnance Engineering College (China)
7658 2M	The research of Organophosphorus pesticide biosensor characteristic [7658-235] Y. Peng, X. Luo, Y. Cheng, Dalian Maritime Univ. (China)
7658 2N	Bad pixel replacement based on spatial statistics for IR sensor [7658-61] X. Meng, W. Zhang, M. Cong, Y. Cao, W. Bao, Harbin Institute of Technology (China)

7658 20	Scanning capacitance microscopy characterization on diffused p-n junctions of InGaAs/InP infrared detectors [7658-281] H. Yin, Y. Li, W. Wang, H. Xia, X. Li, H. Gong, W. Lu, Shanghai Institute of Technical Physics (China)
7658 2P	Measuring of spectral BRDF using fiber optic spectrometer [7658-157] W. Zhang, F. Wang, Z. Wang, H. Wang, Harbin Institute of Technology (China)
7658 2Q	The study on organic solar cells based on bathocuproine as an exciton blocking layer [7658-172] F. Liu, J. Zhong, J. Yu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 2R	The growth of cubic boron nitride films on the interlayer of nickel by RF sputter [7658-114] Q. Guo, J. Deng, M. Cui, W. Zhao, B. Yang, P. Yang, L. Kong, Beijing Univ. of Technology (China)
7658 2S	Detection performance of laser range-gated imaging system [7658-107] J. Xu, Xi'an Jiaotong Univ. (China) and Xi'an Research Institute of High Technology (China); X. Li, J. Luo, S. Zhang, Y. Xu, Xi'an Research Institute of High Technology (China)
7658 2T	In-situ self-assembled polyaniline/carbon nanotubes nanofiber thin films for ammonia gas sensors [7658-245] H. Tai, Y. Jiang, G. Xie, Univ. of Electronic Science and Technology of China (China)
7658 2U	9.3 X continuous zoom optical system with finite conjugate distance [7658-95] Y. Li, Y. Wang, D. Zhu, J. Chen, C. Jin, F. Lu, Wenzhou Medical College (China)
7658 2V	Optical tracking method based on geometric feature point of the extended target [7658-195] Z. Fan, Institute of Optics and Electronics (China, The Key Lab. on Adaptive Optics (China), and Graduate Univ. of Chinese Academy of Sciences (China); C. Wang, C. Rao, W. Jiang, Institute of Optics and Electronics (China) and The Key Lab. on Adaptive Optics (China); X. Ma, Institute of Optics and Electronics (China), The Key Lab. on Adaptive Optics (China), and Graduate Univ. of Chinese Academy of Sciences (China)
7658 2W	Adaptive NUC algorithm for uncooled IRFPA based on neural networks [7658-194] Z. Liu, Y. Jiang, J. Lv, H. Zhu, Univ. of Electronic Science and Technology of China (China)
7658 2X	Research of image enhancement of dental cast based on wavelet transformation [7658-295] J. Zhao, Z. Li, X. Liu, Hong Qing High-Tech Institute (China)
7658 2Y	Luminescent properties of Tb(acac) ₂ AA nanorods prepared by ultrasound irradiation [7658-297] L. Zhou, H. Yu, H. Guo, W. Wang, T. Li, J. Wang, H. Xu, Dalian Jiao Tong Univ. (China); B. Chen, Dalian Maritime Univ. (China)
7658 2Z	Three-dimensional location of tomato based on binocular stereo vision for tomato harvesting robot [7658-239] R. Xiang, Zhejiang Univ. (China) and China Jiliang Univ. (China); H. Jiang, Y. Peng, Y. Ying, Zhejiang Univ. (China)

Development of the tongue coating analyzer based on concave grating monochrometer 7658 30 and virtual instrument [7658-44]
Z. Ren, G. Liu, L. Zeng, Z. Huang, W. Zeng, Jiangxi Science and Technology Normal Univ.

(China)

Part Two

7658 31	Infrared activity of crystalline silicon and amorphous silicon [7658-126] S. Liu, W. Chen, J. Zhang, W. Zhou, P. Zeng, Univ. of Electronic Science and Technology of China (China)
7658 32	Si (211) substrate thinning technology for HgCdTe focal plane arrays on Si substrates
	[7658-288] S. Zhang, C. Wang, J. Cao, X. Hu, Shanghai Institute of Technical Physics (China)
7658 33	Research on testing field flaws of image intensifier based on spatio-temporal SNR [7658-298] B. Zhou, B. Liu, D. Wu, Mechanical Engineering College (China)
7658 34	Multi-object spectral imaging based on MEMS [7658-203] Y. Chen, Y. Ji, J. Zhou, X. Chen, W. Shen, Soochow Univ. (China)
7658 35	A white organic light-emitting diode based on anthracene-triphenylamine derivatives
	[7658-188] Q. Jiang, J. Qu, J. Yu, S. Tao, Y. Gan, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 36	A novel spectrum measurement system [7658-229] Q. Qi, Q. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 37	Method for laser disturbing image quality evaluation based on wavelet weight and correlation [7658-36]
	Y. Xu, X. Sun, Z. Wang, Hefei Electronic Engineering Institute (China)
7658 38	Structure design and performance analysis of the Csl(Tl) thin film crystal cell [7658-141] S. Liu, W. Zhou, Y. Yang, W. Chen, J. Zhang, P. Zeng, Univ. of Electronic Science and Technology of China (China)
7658 39	The analysis of the interference hyperspectral image features and compression [7658-262] L. Zhang, Xi'an Institute of Optics and Precision Mechanics (China), Academy of Opto-Electronics (China), and Shenyang Institute of Aeronautical Engineering (China); S. Zhang, X. Bin, S. Quan, Academy of Opto-Electronics (China)
7658 3A	The manufacture of a binary optic liquid crystal blazed grating and its electro-optical
	properties [7658-273] K. Liu, Z. Huang, J. Wang, Z. Wu, Y. Sun, L. Kong, Univ. of Electronic Science and Technology of China (China)
7658 3B	Acidic chemical bath deposition of Cd _{1-x} Zn _x S thin films [7658-271] M. Cao, Y. Sun, J. Wu, X. Chen, N. Dai, Shanghai Institute of Technical Physics (China)

7636 SC	C. Hu, Y. Li, Y. Wang, H. Feng, C. Jin, F. Lu, Wenzhou Medical College (China)
7658 3D	Fabrication and characterization of photo cathode materials for transparent organic light-emitting diodes [7658-233] H. Lin, J. Yu, N. Wang, C. Huang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 3E	Full parallax 3D stereoscopic display [7658-05] K. Sakamoto, M. Nishiguchi, Konan Univ. (Japan)
7658 3F	Research on vision control system for inverted pendulum [7658-94] X. Jin, Y. Bian, J. Jiang, A. Li, X. Jiang, F. Zhao, Tongji Univ. (China)
7658 3G	Novel reflectivity-difference biosensor [7658-31] H. Chen, L. Wei, Y. Feng, National Univ. of Defense Technology (China)
7658 3H	Poling and characterization of a novel organic/polymer electro-optic material [7658-140] J. Liao, X. Tang, R. Lu, X. Tang, H. Li, X. Zhang, Y. Liu, Univ. of Electronic Science and Technology of China (China)
7658 3I	Self-assembly of conducting polymer nanowires as hole injection layer for organic light-emitting diodes applications [7658-135] Y. Yang, Y. Jiang, J. Xu, J. Yu, Univ. of Electronic Science and Technology of China (China)
7658 3J	Study on the dependence of properties of TiOx heat sensitive films on deposit oxygen flow rate [7658-52] J. Jiang, Z. Wu, Y. Qiu, H. Yu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 3K	White light LED based on YAG:Ce ³⁺ and YAG:Ce ³⁺ ,Gd ³⁺ phosphor [7658-123] K. Li, C. Chen, China Jiliang Univ. (China)
7658 3L	White organic light-emitting diodes based on doped and ultrathin Rubrene layer [7658-220] Y. Li, Y. Jiang, W. Wen, J. Yu, Univ. of Electronic Science and Technology of China (China)
7658 3M	Study on lifetime of high-brightness green organic light-emitting devices [7658-173] Z. Gao, J. Zhong, J. Yu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 3N	Different materials as a cathode modification layer on the impact of organic solar cells [7658-171] J. Zhong, Q. Huang, J. Yu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 30	Azimuth vertical transference based on magneto-optical modulation [7658-666] L. Tan, Q. Zhong, X. Huang, Xi'an Hi-Tech Research Institute (China)
7658 3P	Growth of ZnO nanoparticles at low temperature and optical properties [7658-222] W. Ma, J. Yu, Z. Yuan, Y. Jiang, Univ. of Electronic Science and Technology of China (China)

/658 3Q	[7658-28] Y. Wu, P. Sun, H. Yu, S. Zeng, H. Xu, Dalian Jiao Tong Univ. (China); B. Chen, Dalian Maritime Univ. (China)
7658 3R	Texture recognition of SAR image based on surfacelet transform [7658-219] D. Liu, C. Zhao, C. Tang, Heilongjiang Institute of Science and Technology (China)
7658 3S	Effect of different solvents on the performance of organic light-emitting device based on red-fluorescent ACY dye by spin coating method [7658-89] S. Yu, J. Yu, H. Wang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 3T	Measurement of gas permeation through packaging materials of OLED by mass spectrometry [7658-667] D. Wang, J. Li, X. Wang, J. Li, Univ. of Electronic Science and Technology of China (China)
7658 3U	Efficient organic photovoltaic cells using 2-(4-biphenylyl)-5-phenyl-1,3,4-oxadiazole as an exciton blocking layer [7658-227] W. Zhang, J. Yu, N. Wang, C. Huang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 3V	Acceptor thickness effect of exciplex and electroplex emission at heterojunction interface in organic light-emitting diodes [7658-249] W. Zhang, J. Yu, K. Yuan, Y. Jiang, Univ. of Electronic Science and Technology of China (China); Q. Zhang, K. Cao, Shanghai Jiaotong Univ. (China)
7658 3W	Design of driving circuit for binocular CCD image system [7658-149] M. Zhang, Changchun Institute of Optics, Fine Mechanics and Physics (China) and Graduate School of Chinese Academy of Sciences (China); J. Ren, X. Zhang, Changchun Institute of Optics, Fine Mechanics and Physics (China)
7658 3X	A study of two-point multi-section non-uniformity correction auto division algorithm for infrared images [7658-196] B. Zhou, Y. Ma, H. Li, K. Liang, Huazhong Univ. of Science and Technology (China) and Wuhan National Lab. for Optoelectronics (China)
7658 3Y	New LED illumination optical engine for micro-projection display [7658-102] C. Feng, Harbin Normal Univ. (China); Z. Meng, Changchun Institute of Optics, Fine Mechanics and Physics (China); W. Sun, Harbin Normal Univ. (China)
7658 3Z	Efficiency improvement of yellow organic light-emitting devices by using mixed hole transporting layer [7658-252] S. Chen, J. Yu, W. Wen, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 40	Contrast study on GaAs photocathode activation techniques [7658-13] J. Niu, Nanjing Univ. of Science and Technology (China) and Nanyang Institute of Technology (China); Y. Zhang, B. Chang, Z. Yang, Y. Xiong, Nanjing Univ. of Science and Technology (China)

7658 41 Spectral response variation of exponential-doping transmission-mode GaAs photocathodes in the preparation process [7658-15]

Y. Zhang, Nanjing Univ. of Science and Technology (China); J. Niu, Nanjing Univ. of Science and Technology (China) and Nanyang Institute of Technology (China); B. Chang, Y. Xiong, Z. Yang, Y. Du, Nanjing Univ. of Science and Technology (China)

7658 42 Properties of photoelectricity of WO_x-doped ITO thin films [7658-217]

Y. Liu, Z. Li, C. Wang, H. Liu, Naval Univ. of Engineering (China); S. Luo, Commanding Communications Academy (China)

An objective assessment method of digital image mosaic artifacts visibility based on visual perception [7658-84]

H. Yu, Beijing Institute of Technology (China) and Huangshi Institute of Technology (China); W. Jin, Beijing Institute of Technology (China); X. Liu, Huangshi Institute of Technology (United States)

7658 44 Research on APD-based non-line-of-sight UV communication system [7658-289]

R. Wang, L. Wang, C. Li, W. Zhang, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); Y. Yuan, J. Xu, Y. Zhang, X. Li, Shanghai Institute of Technical Physics (China)

7658 45 Study on the experiment of cable tension measurement with FBG sensors [7658-139]

J. Hu, National Astronomical Observatories (China)

7658 46 Photoluminescence of Mn⁺ doped GaAs [7658-211]

H. Zhou, Central South Univ. of Forestry and Technology (China), Institute of Semiconductors (China), and Hunan Normal Univ. (China); S. Qu, Institute of Semiconductors (China); S. Liao, Hunan Normal Univ. (China); F. Zhang, Central South Univ. of Forestry and Technology (China); J. Liu, Z. Wang, Institute of Semiconductors (China)

7658 47 Photostimulated luminescence of BaFCI:Eu²⁺ in oxide glass ceramics [7658-259]

X. Meng, J. Zhou, Tsinghua Univ. (China)

7658 48 A novel design of infrared focal plane array with digital read out interface [7658-112]

X. Liu, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); R. Ding, Shanghai Institute of Technical Physics (China); W. Lu, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); C. Zhou, Shanghai Institute of Technical Physics (China)

7658 49 **Reliability studies of high operating temperature MCT photoconductor detectors** [7658-41] W. Wang, J. Xu, Y. Zhang, X. Li, Shanghai Institute of Technical Physics (China)

7658 4A Etch-induced damage of HgCdTe caused by inductively coupled plasma etching technique [7658-287]

W. Yin, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); W. Zhou, J. Huang, Shanghai Institute of Technical Physics (China)

7658 4B Effects of solution properties on the morphology and diameters of nanofibers fabricated by electrospinning [7658-34]

H. Jing, Y. Jiang, X. Du, Univ. of Electronic Science and Technology of China (China)

7658 4C	Research of a high-efficiency practical distributed fiber Bragg grating temperature sensor system [7658-215] Y. Zhang, Yanshan Univ. (China) and Gulf Security Technology Ltd., Co. (China); B. Wei, J. Lou, W. Bi, Yanshan Univ. (China)
7658 4D	Infrared non-uniformity correction algorithm based on fast independent component blind separation [7658-58]
	HB. Nie, W. Zhang, YM. Cao, M. Zhao, Harbin Institute of Technology (China)
7658 4E	Application research of fault diagnosis expert system for photoelectric tracking device based on BP NN [7658-80] M. Hou, Y. Zhang, Huaihai Institute of Technology (China); F. Liu, Shandong Shengli Vocational College (China); J. Zhang, Huaihai Institute of Technology (China); L. Su,
	Chongqing Institute of Technology (China)
7658 4F	Distinguishing different parts of objects by terahertz imaging [7658-258] J. Ge, R. Wang, S. Hu, N. Dai, Shanghai Institute of Technical Physics (China); D. Li, H. Ma, G. Ma, Shanghai Univ. (China)
7658 4G	Fabrication and evaulation of the CdZnTe microlens arrays [7658-153] J. Huang, W. Zhou, W. Yin, Shanghai Institute of Technical Physics (China)
7658 4H	Influence of doping I ₂ into MEH-PPV on carrier transporting capability and electroluminescence properties [7658-131] Z. Cheng, F. Zhang, Beijing Jiaotong Univ. (China)
7658 41	Non-uniformity correction for infrared focal plane array with image based on neural network algorithm [7658-177] T. Wang, J. Yu, Y. Zhou, Y. Xing, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 4J	Effective local-field confinement of silver nanoparticle dimer arrays [7658-103] L. Yao, X. Li, T. Yang, S. Pan, M. Chen, Dalian Univ. of Technology (China)
7658 4K	The influence of substrate temperature on the electrical and optical properties of titanium oxide thin films prepared by d.c. reactive magnetron sputtering [7658-113] Y. Ju, Z. Wu, Y. Qiu, L. Li, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 4L	Research of laser active image-denoising method [7658-111] J. Luo, J. Xu, S. Hou, X. Li, The Second Artillery Engineering College (China)
7658 4M	A back-illuminated heterojunctions ultraviolet photodetector based on ZnO film [7658-280] X. Jiang, D. Li, W. Yang, J. Wang, X. Lin, Z. Huang, Univ. of Electronic Science and Technology of China (China)
7658 4N	Design of the acquisition system with low-noise based on 160×120 uncooled infrared detector [7658-99] Y. Xing, Y. Zhou, T. Wang, Y. Jiang, Univ. of Electronic Science and Technology of China (China)

7658 40	Design of high-speed low-noise pre-amplifier for CCD camera [7658-97] X. Xue, Changchun Institute of Optics, Fine Mechanics and Physics (China); S. Zhang, Changchun Univ. (China); H. Li, Y. Guo, Changchun Institute of Optics, Fine Mechanics and Physics (China)			
7658 4P	High-efficient and brightness white organic light-emitting diodes operated at low bias voltage [7658-299]			
	L. Zhang, J. Yu, K. Yuan, Y. Jian, Univ. of Electronic Science and Technology of China (China)			
7658 4Q	The spectral adaptation applied to image color appearance model [7658-200] H. Yang, W. Yang, C. Guo, X. Wu, H. Li, A. Dou, F. Bai, Yunnan Normal Univ. (China)			
7658 4R	Novel structure for ultrafast uncooled focal plane array [7658-267] Z. Cheng, B. Ma, X. Zhang, H. Zhai, Y. Shi, Shanghai Institute of Technical Physics (China)			
7658 4S	Fabrication of black silicon materials by wet etching and characterization [7658-106] Z. Guo, Z. Wu, A. Zhang, J. Jiang, G. Zhao, Y. Jiang, Univ. of Electronic Science and Technology of China (China)			
7658 4T	Effects of annealing on InAsSb films grown by the modified LPE technique [7658-67] C. Sun, S. Hu, Q. Wang, J. Wu, N. Dai, Shanghai Institute of Technical Physics (China)			
7658 4U	Preparation and mechanism of carbon encapsulated Cu nanoparticles [7658-277] J. Xue, Wuhan Institute of Technology (China) and Wuhan Reseach Institute of Materials Protection (China); H. Xiang, S. Pang, H. Ding, X. Wang, H. Cao, Wuhan Institute of Technology (China)			
7658 4V	Studies of a colorimetric array consisted of metalloporphrins and Pt complexes [7658-204] J. Luo, Univ. of Electronic Science and Technology of China (China); T. Ma, L. Li, P. Pan, Xinyun Electronic Components Co., Ltd. (China); J. Xu, Y. Jiang, Y. Yang, Univ. of Electronic Science and Technology of China (China)			
7658 4W	A novel colored electrophoretic core/shell particles prepared by precipitation polymerization [7658-108] Y. Feng, F. Teng, S. Huang, Beijing Jiaotong Univ. (China)			
7658 4X	Subpixel edge-detection algorithm based on pseudo-Zernike moments [7658-144] K. Zhang, H. Chen, Q. Liang, C. Huang, J. Xu, Huazhong Univ. of Science and Technology (China)			
7658 4Y	Study on height calibration in the PMP measurement system [7658-93] Y. Zhang, H. Wu, X. Pan, F. Meng, Changzhou Institute of Technology (China)			
7658 4Z	Effects of different nanostructural ZnS films on the characteristics of organic/inorganic heterostructure devices [7658-56] L. Lu, Z. Xu, F. Zhang, S. Zhao, L. Wang, Z. Zhuo, X. Gai, Beijing Jiaotong Univ. (China)			

7658 5C	Spectrum acquisition of detonation based on CMOS [7658-45] Y. Li, Xi'an Institute of Optics and Precision Mechanics (China) and Graduate Univ. of Chinese Academy of Sciences (China); Y. Bai, B. Wang, B. Liu, Xi'an Institute of Optics and Precision Mechanics (China); Y. Xue, W. Zhang, Y. Gou, Xi'an Institute of Optics and Precision Mechanics (China) and Graduate Univ. of Chinese Academy of Sciences (China); X. Bai, J. Qin, O. Xian, Xi'an Institute of Optics and Precision Mechanics (China)
7658 5D	Study on algorithm and real-time implementation of infrared image processing based on FPGA [7658-115] Y. Pang, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); R. Ding, Shanghai Institute of Technical Physics (China); S. Liu, Z. Chen, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China)
7658 5E	Calculation of optical band gaps of a-Si:H thin films by ellipsometry and UV-Vis spectrophotometry [7658-164] Y. Qiu, W. Li, M. Wu, J. Fu, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 5F	Research on infrared image enhancement algorithm based on histogram [7658-152] J. Zhang, Z. Liu, Y. Lei, Y. Jiang, Univ. of Electronic Science and Technology of China (China)
7658 5G	Design of SOPC-based infrared image enhancement system [7658-151] Y. Lei, Z. Wu, Z. Liu, J. Zhang, T. Wang, R. Wang, Univ. of Electronic Science and Technology of China (China)
7658 5H	Simulation and analysis of ACB'S photometric signature based on STK [7658-156] L. Zhang, D. Ma, C. Niu, Zhengzhou Information Science and Technology Institute (China)
7658 51	980-nm 14-pin butterfly module dual-channel CW QW semiconductor laser for pumping [7658-286] Y. Deng, C. Yan, Y. Qu, H. Li, Y. Wang, X. Gao, Z. Qiao, M. Li, B. Qu, P. Lu, B. Bo, Changchun Univ. of Science and Technology (China)
7658 5J	Underwater object detection technology based on polarization image fusion [7658-260] Y. Li, S. Wang, Shanghai Ocean Univ. (China)
7658 5K	X-ray integrated digital imaging system based on a-si flat panel detector [7658-218] J. Fu, B. Li, B. Jiang, Beijing Univ. of Aeronautics and Astronautics (China)
7658 5L	Application of stimulated rotational Raman scattering technique in NO ₂ -DIAL system [7658-278] D. Fang, Huzhou Teachers College (China) and China Jiliang Univ. (China); B. Xu, K. Yang, C. Li, China Jiliang Univ. (China)
7658 5M	Research on detection characteristics test method for infrared detector in low temperature background [7658-179] S. Wang, W. Zhang, Q. Wang, Harbin Institute of Technology (China)
7658 5N	Iterative blind image restoration with ringing reduction [7658-212] J. Zhao, H. Feng, Z. Xu, Q. Li, Zhejiang Univ. (China)

7658 5O	Monte Carlo simulation of detecting space debris with lidar [7658-150] S. Fang, Hefei Electronic Engineering Institute (China); Y. Fu, State Key Lab. for Complex Systems Simulation (China); Z. Li, Hefei Electronic Engineering Institute (China)
7658 5P	Nondestructive testing of rocket engine injector panel using ultrasonic burst phase
	thermography [7658-77] D. Chen, Beihang Univ. (China); C. Zhang, Capital Normal Univ. (China); N. Wu, Beihang Univ. (China); Z. Zeng, Chongqing Normal Univ. (China); C. Xing, Y. Li, Capital Normal Univ. (China); S. Zhao, Beihang Univ. (China); T. Ning, Capital Normal Univ. (China)
7658 5Q	High-speed motion-blurred image restoration based on blind deconvolution [7658-92] L. Liu, State Key Lab. of Astronautic Dynamics (China) and Changchun Univ. of Science and Technology (China); R. Xu, G. Li, State Key Lab. of Astronautic Dynamics (China); Z. Ping, Changchun Univ. of Science and Technology (China)
7658 5R	A hyperspectral images compression algorithm based on 3D bit plane transform [7658-261] L. Zhang, Xi'an Institute of Optics and Precision Mechanics (China), Academy of Opto-Electronics (China), and Shenyang Institute of Aeronautical Engineering (China); L. Xiang, S. Zhang, S. Quan, Academy of Opto-Electronics (China)
7658 5S	Dim-small-targets detection based on higher-order cumulant and wavelet method
	[7658-257] G. Liu, Air-force Aviation Univ. (China); R. Wang, Jilin Architectural and Civil Engineering Institute (China); Q. Wang, DNMC Shenzhen (China)
7658 5T	High-speed SPGD wavefront controller for an adaptive optics system without wavefront
	sensor [7658-142] C. Wang, The Key Lab. on Adaptive Optics (China), Institute of Optics and Electronics (China), and Graduate Univ. of Chinese Academy of Sciences (China); X. Li, M. Li, J. Ye, The Key Lab. on Adaptive Optics (China) and Institute of Optics and Electronics (China); B. Chen, The Key Lab. on Adaptive Optics (China), Institute of Optics and Electronics (China), and Graduate Univ. of Chinese Academy of Sciences (China)
7658 5U	Joint transform correlator based on CIELAB model with encoding technique for color pattern recognition [7658-159] T. Lin, C. Chen, C. Liu, Y. Chen, Yuan Ze Univ. (Taiwan)
7658 5V	Study the encountering simulation system for laser fuze based on intensity attenuation and fiber delay [7658-47] H. Chen, P. Li, W. Guo, Beijing Institute of Technology (China)
7658 5W	The energy coupling between two chiral waveguides [7658-265] J. Zhao, P. Cheng, Harbin Engineering Univ. (China); J. Li, Harbin Institute of Technology (China)
7658 5X	Wave-shaping and engineering realization of CCD driving signals [7658-138] Y. Wang, T. Li, Beijing Institute of Space Mechanics and Electricity (China)
7658 5Y	Timing generator of scientific grade CCD camera and its implementation based on FPGA technology [7658-158]
	G. Si, Y. Li, Y. Guo, Changchun Institute of Optics, Fine Mechanics and Physics (China)

- 7658 5Z

 128×128 dual-color ROIC with electrical crosstalk resistant design [7658-119]

 W. Lu, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); R. Ding, Shanghai Institute of Technical Physics (China); X. Liu, Shanghai Institute of Technical Physics (China) and Graduate Univ. of Chinese Academy of Sciences (China); C. Zhou, Shanghai Institute of Technical Physics (China)
- 7658 60 **A CMOS transimpedance amplifier for pulsed laser range finder** [7658-143] Y. Chen, G. Huang, R. Shu, B. Wang, Shanghai Institute of Technical Physics (China)

Author Index

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Introduction

The 5th International Symposium on Advanced Optical Manufacturing and Testing technologies (AOMATT) was held 26–29 April 2010 at Dalian World Expo Center in the beautiful city of Dalian, China. This is the same venue where the 2007 World Economy Forum of DAVOS was held. AOMATT was initiated in 2000 to provide a forum for international researchers, designers, managers, and manufacturers to discuss related technologies in this area. The first meeting, AOMATT 2000, was held in Chengdu, China. Since then, AOMATT has increasingly become a must-attend conference for the international optical design, manufacturing, and testing communities. AOMATT has developed a reputation for excellent plenary sessions, quality oral and poster papers, and fun social events.

AOMATT 2010 was opened with a grand opening ceremony and outstanding plenary sessions. About 1,000 delegates attended the opening ceremony and plenary sessions in the multi-functional hall of the Dalian World Expo Center. Honored guests and sponsoring and cooperating organization representatives, including Professor Qing Yu Weng representing the National Science Foundation of China (NSFC), Dr. Jinxue Wang representing SPIE, technical cosponsor of AOMATT, and Dr. James C. Wyant, Dean of Optical Sciences at the University of Arizona and 2010 president of OSA, gave welcome and congratulation speeches at the opening ceremony. Professor Guofan Jin, an academician of the Chinese Academy of Engineering and cochair of the symposium, gave an opening speech in written form on behalf of the Chinese Optical Society (COS). Plenary speakers included Dr. Roland Geyl from REOSC of France, Dr. Hong Minghui from the National University of Singapore, Dr. Yoshiharu Namba from Chubu University of Japan, Dr. James Wyant from the University of Arizona in the USA, Dr. Thomas Franz from the NTG Company in Germany, Professor Fengting Sang, an academician from the Dalian Institute of Chemical Physics, Chinese Academy of Sciences (CAS), and Professor Xianggun Cui, an academician from the Nanjing Institute of Astronomical Optics and Technology, National Astronomical Observatory, CAS. Other academicians attending AOMATT 2010 included: Wenhan Jiang from IOE of CAS, Can Li from DICP of CAS, Junhua Pan from Suzhou University, Liwei Zhou from Beijing Institute of Technology, and Yijun Zhao from the National University of Defense Technology.

AOMATT 2010 received more than 1,300 abstracts. After careful reviews by the conference chairs and committee members and an invited reviewer, more than 700 papers were accepted for presentation at the conference and publication in the Proceedings of SPIE. The AOMATT 2010 proceedings are divided into six volumes - 7654–7659 - and correspond to the six conferences of the symposium, namely, Large Mirrors and Telescopes; Advanced Optical Manufacturing Technologies; Optical Test and Measurement Technology and Equipment;

Design, Manufacturing, and Testing of Micro- and Nano-Optical Devices and Systems; Optical Materials, Detectors, Imagers, and Energy Conversion Technology; and Smart Structures and Materials in Manufacturing and Testing.

There is continued improvement in paper quality compared to previous AOMATT symposiums. Many papers report cutting-edge research and development. More authors are from well-known universities, research institutions, and corporations around the world. We believe AOMATT 2010 made another important step in establishing itself as an essential international symposium for the international optical design, manufacturing, and testing communities.

We would like to express our sincere appreciation to COS—The Chinese Optical Society, IOE—Institute of Optics and Electronics, the Chinese Academy of Sciences, and to SPIE for supporting AOMATT. We want to thank all the authors and participants for attending the symposium and sharing their research with colleagues around the world. We especially thank IOE and Dr. Yudong Zhang, President of IOE, for their steadfast support of AOMATT since its inception in 2000.

We look forward to your participation and support of the 6th AOMATT in 2012. Location, time, and the call for papers will be posted on SPIE and IOE websites soon.

Li Yang

Secretary General, AOMATT 2010 Chairman, Committee on Optical Manufacturing Technology, COS