**2017年中国科学院半导体研究所**

**五四青年学术交流会**

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| **序号** | **姓名** | **部门** | **题目** |
| 1 | 冯圣文 | 光电系统 | A Distributed Acoustic Sensing System Based on Phase-Generated-Carrier Algorithm and Its Application in Oil and Gas Exploration |
| 2 | 刘翠翠 | 工程中心 | 基于ZEMAX的双波长单管半导体激光器光纤耦合模块设计 |
| 3 | 蒋越 | 光电系统 | Fully distributed optical fiber acoustic sensor system |
| 4 | 刘晓晨 | 集成中心 | A piezo-resistive atomic force probe used for large displacement detection |
| 5 | 尚雅轩 | 超晶格 | 一种基于虚拟仪器的脉冲磁场下磁化翻转动力学参数的测量系统 |
| 6 | 杨帅 | 照明中心 | 基于MOCVD技术的AlN声表面波谐振器 |
| 7 | 梅书哲 | 材料重点 | The effect of coil arrangement on temperature distribution in MOCVD reactor with induction heating |
| 8 | 张璐 | 照明中心 | The effect of etching conditions on surface morphology of periodic inverted pyramids patterned Si (100) substrate |
| 9 | 马庆艳 | 固态光电 | Quantum walk classical simulation with slot waveguide array for sensing |
| 10 | 汤敏 | 光电研发 | Mode Properties for Variable Curvature Microresonators |
| 11 | 李彤 | 纳米光电 | Realization of circularly polarized beam based on plasmonic metasurface |
| 12 | 曹海城 | 照明中心 | Composite model and analysis for the degradation in the mid-power LEDs |
| 13 | 胡晓斌 | 纳米光电 | High efficiency broad band arbitrary optical rotation and generation of vector beams |
| 14 | 王登贵 | 材料重点 | Epitaxial Growth of HfS2 on Sapphire by CVD |
| 15 | 孟军华 | 材料重点 | Aligned Growth of Millimeter-Size Hexagonal Boron NitrideSingle-Crystal Domains on Epitaxial Nickel Thin Film |
| 16 | 季祥海 | 材料重点 | InAs/GaSb core-shell nanowires grown on Si substrates by metalorganic chemical vapor deposition |
| 17 | 吴清清 | 照明中心 | Suppression of cracks in the epitaxy of AlN by MOCVDthrough a hexagonal BN nucleation layer |
| 18 | 吉泽生 | 材料重点 | Growth and characterization of AlN epilayers usingpulsed metal organic chemical vapor deposition |
| 19 | 张翔 | 照明中心 | Epitaxial growth of GaN on (-201) β-Ga2O3 substrate |
| 20 | 储佳焰 | 材料重点 | The effect of growth temperature in the middlestage of GaN epilayers grown on CPSS |
| **序号** | **姓名** | **部门** | **题目** |
| 21 | 王蕴玉 | 照明中心 | MOCVD Growth of GaN using graphene as buffer layer |
| 22 | 沈佳英 | 材料重点 | Thermally induced acceptor to donor transformation of implanted carbon in InAs |
| 23 | 赵晓萌 | 材料重点 | Effect of InSb/In0.9Al0.1Sb superlattice buffer layer on the structural and electronic properties of InSb films |
| 24 | 王琦 | 照明中心 | Epitaxial growth of crack-free semipolar GaN LED structures on patterned Si (100) substrate |
| 25 | 任宽宽 | 材料重点 | Turning a disadvantage into an advantage:synthesizing high-qualityorganometallic halide perovskite nanosheet arrays for humidity sensors |
| 26 | 岳世忠 | 材料重点 | Insights into the Influence of Work Functions of Cathodes on Efficiencies of Perovskite Solar Cells |
| 27 | 孙阳 | 材料重点 | High-efficiency large-area flexible polymer solar cells with imprinted Ag grid |
| 28 | 李巍 | 材料重点 | Impact of dual field plates on drain current degradation in InAlN/AlN/GaN HEMTs |
| 29 | 占香蜜 | 材料重点 | Highly sensitive detection of deoxyribonucleic acid hybridization using Au-gated AlInN/GaN high electron mobility transistor based sensors |
| 30 | 赵泽平 | 光电研发 | Small Signal Circuit Model and Parameter Extraction ofHigh Speed Photodetectors |
| 31 | 罗佳明 | 材料重点 | Cardiac troponin detection based on FET real-timeand high sensitivity biosensors |
| 32 | 杨杰 | 照明中心 | Research on phosphor-conversion laser-based white light used as optical source of VLC and illumination |
| 33 | 闵成彧 | 光电研发 | Visible Light Communication System Using Silicon Photocell for Energy Gathering and Data Receiving |
| 34 | 王海丽 | 工程中心 | 975nm分布反馈激光器一级光栅的制备 |
| 35 | 吴浩越 | 纳米光电 | High quantum efficiency N-structure type-II superlattice MWIR detector with RCE design |
| 36 | 刘传威 | 材料重点 | Isotopic analysis of CO2 based on quantum cascade laser |
| 37 | 王文知 | 工程中心 | 大功率半导体激光器可靠性研究 |
| 38 | 肖志雄 | 光电研发 | Single mode unidirectional-emission circular-side hexagonal resonator microlasers |
| 39 | 王福丽 | 光电研发 | Realization of the all optical inverter using hybridsquare-rectangular Lasers |
| 40 | 张洋 | 材料重点 | A New Optical Method for Measuring the Coefficient ofInverse Spin Hall Effect |
| 41 | 赵成城 | 材料重点 | Monte Carlo calculation of multiplication factor and excess noise factor of InAs APD |
| 42 | 黄建亮 | 材料重点 | Impact of band structure of Ohmic contact layers on the response feature of p-i-n very long wavelength type II InAs/GaSb superlattice photodetector |

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| **序号** | **姓名** | **部门** | **题目** |
| 43 | 黄文军 | 材料重点 | Electron mobility of inverted InAs/GaSbquantum well structure |
| 44 | 蔡凯明 | 超晶格 | Electric field control of deterministic current-induced magnetizationswitching in a hybrid ferromagnetic/ferroelectric structure |
| 45 | 刘俊 | 材料重点 | Hot electron injection: an efficacious approach to chargeLaCoO3 for improving the water splitting efiiciency |
| 46 | 马佳淋 | 超晶格 | Orientation-Dependent Intrinsic Anomalous Hall Effect in Epitaxial MnAs Films |
| 47 | 陈华民 | 纳米光电 | Crumpled Graphene Triboelectric Nanogenerators: smaller devices with higher output performance |
| 48 | 杨健 | 集成中心 | Research on the piezoelectric properties and Schottky contact of AlN thin film |
| 49 | 杨超 | 照明中心 | GaN with Laterally Aligned Nanopores to Enhance the Water Splitting |
| 50 | 谭青海 | 超晶格 | Observation of forbidden phonons and dark excitons by resonance Raman scattering in few-layer WS2 |
| 51 | 张保 | 超晶格 | Piezo Voltage Controlled Planar Hall Effect Devices |
| 52 | 赵旭鹏 | 超晶格 | *L*10-MnGa based magnetic tunnel junction for high magnetic field sensor |
| 53 | 袁配 | 光电研发 | Design and Fabrication of Wavelength Tunable AWGs Based on Thermo-optic Effect |
| 54 | 李超懿 | 光电研发 | Design and Fabrication of O band 8 channel Flat-top Arrayed Waveguide Grating Based on Silica-on-Silicon |
| 55 | 李凯丽 | 光电研发 | 45-channel 100GHz AWG based on Si nanowire waveguides |
| 56 | 陈光灿 | 材料重点 | High-speed Chaos-masking Data Encryption by Using a Monolithic Integrated Chaotic Laser as Broadband Chaos Signal Generator |
| 57 | 孙术乾 | 光电研发 | Single-shot chirped microwave signal compression |
| 58 | 张志珂 | 光电研发 | Transmission of 56 Gb/s PAM-4 signal using 1.55-μm directly modulated laser |
| 59 | 翁海中 | 光电研发 | Optical frequency comb generation based on the dual-mode square microlaser |
| 60 | 王岭 | 固态光电 | Precise and Continuous Time and Frequency Synchronisation at the 5×10-19 Accuracy Level |
| 61 | 杨成悟 | 固态光电 | Wideband Dynamic Microwave Frequency Identification system Based on Microwave Photonics |
| 62 | 侯云虹 | 集成中心 | The Introduction of the Aluminum Nitride MEMS Contour-Mode Resonator |