

Poster Session

P1	One-Dimensional Wolter Mirror for Achromatic Hard X-ray microscopy	S. Matsuyama, N. Kidani, T. Wakioka, H. Mimura and K. Yamauchi	Osaka University
P2	Development of Advanced Kirkpatrick-Baez Mirror for Achromatic hard X-ray Microscopy	N. Kidani, S. Matsuyama, T. Wakioka, S. Kitamura, H. Mimura and K. Yamauchi	Osaka University
P3	Fabrication of Ultraprecision Millimeter-thick Neutron Focusing Supermirror by Numerically Controlled Local Wet Etching and Low-pressure Polishing	F. Yamaga ¹ , M. Nagano ¹ , K. Yamasaki ¹ , N. Zettsu ¹ , D. Yamazaki ² , R. Maruyama ² , K. Soyama ² and K. Yamamura ¹	¹ Osaka University ² JAEA
P4	Advancement on Reproduction of <i>Morpho</i> -Butterfly's color - Fabrication and Simulation Analysis-	A. Saito ^{1,2,3} , J. Murase ¹ , M. Yonezawa ¹ , M. Akai-Kasaya ¹ , and Y. Kuwahara ¹	¹ Osaka University ² SPRING-8/RIKEN ³ JST/PRESTO
P5	Excitation, Propagation, and Focusing of Surface Plasmon Polaritons via A Pair of Subwavelength Holes through Silver Thin Film	Y. Oshikane, M. Nakano, and H. Inoue	Osaka University
P6	Development of Side-By-Side Kirkpatrick-Baez Mirror for High-Density X-ray Nanobeam	T. Wakioka, S. Matsuyama, N. Kidani, H. Mimura, Y. Sano, and K. Yamauchi	Osaka University
P7	Figuring of Damage-Free Cylindrical Silicon Crystal Substrate for a Focusing X-ray Spectrometer by Plasma Chemical Vaporization Machining	M. Hosoda ¹ , M. Nagano ¹ , N. Zettsu ¹ , S. Shimada ² , K. Taniguchi ³ and K. Yamamura ¹	¹ Osaka University ² Osaka Electro-Communication University ³ Techno-X Co., Ltd.
P8	Ray-tracing Analysis of a Graded Multilayer Mirror	H. Yokoyama, N. Mimura, T. Kimura, S. Imai, S. Matsuyama Y. Sano and K. Yamauchi	Osaka University
P9	Nano-scale Elemental Analysis using SR-STM -Evaluation of Elemental Contrast for Adsorbed Nano-Structures on the Semiconductor Surface-	H. Notsu ^{1,2,3} , A. Saito ^{1,2,3} , G. Ohzeki ^{1,2} , T. Tanaka ^{1,2} , Y. Takagi ^{2,4} , Y. Tanaka ² , H. Matsuno ^{1,2} , Y. Kohmura ² , M. Akai-Kasaya ¹ , T. Ishikawa ² Y. Kuwahara ^{1,2} and M. Aono ⁵	¹ Osaka University ² SPRING-8/RIKEN ³ JST/PRESTO ⁴ Inst. for Molecular Science ⁵ NIMS
P10	Phase-Shifting Point Diffraction Interferometer with Spherical Reference Wavefronts Generated by Two Optical Fibers	N. Ogawa, Y. Oshikane, H. Inoue and M. Nakano	Osaka University
P11	Fabrication of High-Precision Elliptical Neutron Focusing Supermirror with Large Clear Aperture	M. Nagano ¹ , F. Yamaga ¹ , N. Zettsu ¹ , D. Yamazaki ² , R. Maruyama ² , K. Soyama ² , and K. Yamamura ¹	¹ Osaka University ² JAEA
P12	Fabrication of Metallo-dielectric Plasmonic Nanoshell Arrays for A Label-Free Immunoassay Based on NIR-light Responsive LSPR	S. Uchida, K. Yamamura and N. Zettsu	Osaka University
P13	Development of High-resolution X-ray Diffraction Microscopy using Kirkpatrick and Baez Mirrors	R. Tsutsumi ¹ , Y. Takahashi ¹ , N. Zettsu ¹ , A. Suzuki ¹ , Y. Nishino ² , E. Matsubara ³ , T. Ishikawa ⁴ and K. Yamauchi ¹	¹ Osaka University ² Hokkaido University ³ Kyoto University ⁴ SPRING-8/RIKEN
P14	Development of Wavefront Measurement Method for Hard X-ray Adaptive Optics System	T. Kimura ¹ , S. Handa ¹ , H. Mimura ¹ , H. Yumoto ² , H. Yokoyama ¹ , Y. Sano ¹ , K. Tamasaku ^{1,3} , Y. Nishino ³ M. Yabashi ² , T. Ishikawa ^{2,3} and K. Yamauchi ¹	¹ Osaka University ² SPRING-8/JASRI ³ SPRING-8/RIKEN
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P16	Electrical Characterization of DNA Solutions Using Metal-Gap-Insulator-Semiconductor Devices	T. Hirokane, Y. Doi, T. Furukawa, J. Uchikoshi, K. Arima, and M. Morita	Osaka University
P17	First-principle Analysis Silicon Etching by Hydrogen Radical -Diffusion of Absorbed Hydrogen Atom on Si(001) 2x1 Surface-	K. Inagaki, K. Hirose, Y. Morikawa and K. Yasutake	Osaka University
P18	Electroluminescence in Metal-Oxide-Semiconductor Tunnel Diodes on Ultrathin Silicon-on-Insulator Substrates	K. Matsumura, A. Tsuchida, R. Yamada, Y. Oshikane, J. Uchikoshi, K. Arima and M. Morita	Osaka University

P19	Investigation of Structural Change in TiN/HfLaSiO Gate Stack Induced by High-temperature Annealing	T. Yamamoto ^{1,2} , S. Ogawa ¹ , H. Arimura ² , M. Saeki ² , N. Kitano ² , T. Hosoi ² , T. Shimura ² and H. Watanabe ²	¹ Toray Research Center ² Osaka University
P20	Investigation of High-k Bulk and Interface Defects in Poly-Si/TiN/HfLaSiO/SiO ₂ Stacks using Charge Pumping Technique	M. Saeki, H. Arimura, N. Kitano, T. Hosoi, T. Shimura and H. Watanabe	Osaka University
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P22	Improvement of Thickness Uniformity of Si Layer in SOI Wafer by Numerically Controlled Sacrificial Oxidation Using Atmospheric-Pressure Plasma with Electrode Array System	K. Yoshinaga, Y. Sano, H. Mimura, S. Matsuyama, and K. Yamauchi	Osaka University
P23	Interaction Between Dangling Bonds and Passivants at Ge/GeO ₂ Interfaces: A Theoretical Study	S. Saito and T. Ono	Osaka University
P24	Dependence of Miscut Angles on Straightness of Step Edges of Si(111) Surfaces Flattened by Ultra-low Dissolved Oxygen Water	H. Sakane, T. Teramura, J. Uchikoshi, M. Morita and K. Arima	Osaka University
P25	Open Air Deposition of Silicon Oxide Films at Room Temperature Using Atmospheric-Pressure Plasma Jet	K. Higashida ¹ , K. Nakamura ¹ , T. Shibata ² , T. Yamada ¹ , H. Ohmi ¹ , H. Kakiuchi and K. Yasutake ¹	¹ Osaka University ² Panasonic Electric Works Co., Ltd.
P26	Consideration of Photo-etching Mechanism of Si with N-fluoropyridinium Salt	K. Tsukamoto ¹ , J. Uchikoshi ¹ , M. Otani ¹ , S. Goto ¹ , Y. Ie ¹ , T. Nagai ² , K. Adachi ² , K. Arima ¹ and M. Morita ¹	¹ Osaka University ² Daikin Industries, Ltd.
P27	Residual Order and Rate Enhancement of SiGe Thermal Oxidation	T. Shimura, Y. Okamoto, D. Shimokawa, T. Inoue, T. Hosoi and H. Watanabe	Osaka University
P28	Impact of La and Al Composition Ratio on the Electrical Properties of La-Al-O Higher-k Gate Dielectrics	H. Arimura ¹ , T. Ando ^{1,2} , S. L. Brown ² , A. Kellock ³ , A. Callegari ² , M. Copel ² , R. Haight ² , H. Watanabe ¹ and V. Narayanan ²	¹ Osaka University ² IBM T. J. Watson ³ IBM Almaden
P29	Thermal Robustness and Improved Electrical Properties of Ultrathin Germanium Oxynitride Gate Dielectric	K. Kutsuki, I. Hideshima, T. Hosoi, T. Shimura and H. Watanabe	Osaka University
P30	Selective Transportation of Gold Nanoparticles Encapsulated with TFG Subunit Dimers and Their Plasmonic Characteristics	T. Hashimoto ¹ , B. Zheng ^{2,3} , M. Fukuta ^{1,3} , K. Gamo ¹ , N. Zettsu ^{1,3} , I. Yamashita ^{2,3} , Y. Uraoka ^{2,3} and H. Watanabe ^{1,3}	¹ Osaka University ² NAIST ³ JST/CREST
P31	Critical Titanium Coverage on SiO ₂ for Selective Adsorption of Ti-binding Ferritin	K. Gamo ¹ , M. Fukuta ^{1,3} , T. Hashimoto ¹ , B. Zheng ^{2,3} , N. Zettsu ^{1,3} , I. Yamashita ^{2,3} , Y. Uraoka ^{2,3} and H. Watanabe ^{1,3}	¹ Osaka University ² NAIST ³ JST/CREST
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P33	High-performance Organic Single Crystal Transistor with Sub-micrometer Channel	T. Fujiwara ¹ , M. Akai-Kasaya ¹ , A. Saito ^{1,2} , J. Takeya ^{1,2} and Y. Kuwahara ¹	¹ Osaka University ² JST/PREST
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P38	Tunneling-current-induced Light Emission from Chiral Binaphthylene-perylenebiscarboxydiimide Dimer	A. Fujiki ¹ , Y. Miyake ¹ , M. Kasaya-Akai ¹ , A. Saito ^{1,2} , and Y. Kuwahara ¹	¹ Osaka University ² JST/PREST
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P41	Tunneling-current-induced Light Emission from Isolated Single-walled Carbon Nanotubes	Y. Miki ¹ , N. Ozawa ¹ , A. Fujiki ¹ , K. Okamura ¹ , M. Kasaya-Akai ¹ , A. Saito ^{1,2} , H. Tabata ¹ , S. Honda ³ , M. Katayama ¹ and Y. Kuwahara ¹	¹ Osaka University ² JST/PREST ³ University of Hyogo
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P55	First Principles Calculation of C ₇ H ₁₂ ON ⁺ Cation Adsorption on Graphene	M. Tani, M. Sakaue, H. Nakanishi, W. A. Diño and H. Kasai	Osaka University
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P59	TEM Observation of Surface Atomic Structure of Cobalt Nanocatalysts Producing Graphite	T. Yahiro and Y. Takai	Osaka University
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P62	Impact of Nitrogen Incorporation into Al ₂ O ₃ Gate Dielectrics on Flatband Voltage Stability in 4H-SiC MIS Devices	T. Hosoi ¹ , Y. Kagei ¹ , T. Kirino ¹ , S. Mitani ² , Y. Nakano ² , T. Nakamura ² , T. Shimura ¹ and H. Watanabe ¹	¹ Osaka University ² ROHM Co., Ltd.,
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P66	Thinning of SiC Wafer by Plasma Chemical Vaporization Machining	K. Aida, Y. Sano, H. Nishikawa, K. Yamamura, H. Mimura, S. Matsuyama and K. Yamauchi	Osaka University
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P71	Investigation of Correlation between Thermally Grown SiO ₂ Thickness Fluctuation and Local Dielectric Breakdown in 4H-SiC MOS Devices	Y. Uenishi ¹ , K. Kozono ¹ , S. Mitani ² , Y. Nakano ² , T. Nakamura ² , T. Hosoi ¹ , T. Shimura ¹ and H. Watanabe ¹	¹ Osaka University ² ROHM Co., Ltd.,
P72	Study on Molybdenum Oxide Encapsulated inside Carbon Nanotubes Using Transmission Electron Microscope	R. Sagawa ¹ , W. Togashi ¹ , T. Akita ² and Y. Takai ¹	¹ Osaka University ² AIST
P73	Study on Plasma Etching Method for Si by Utilizing a Solid Fluoropolymer as On-site Etchant Generator	K. Umehara, K. Yasutake, K. Kishimoto, H. Kakiuchi and H. Ohmi	Osaka University
P74	Study on the Structure and Electrical Properties of μ -SiC films Prepared by Plasma Enhanced Chemical Transport at Sub-atmospheric Pressure	T. Hori, T. Mori, H. Kakiuchi, K. Yasutake and H. Ohmi	Osaka University
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P78	Role of Correlation Effects in Many-Electron System: Toward Overcoming Unreliability Problems of Density Functional Theory	M. Kojo and K. Hirose	Osaka University
P79	Processing Characteristics in Catalyst-Referred Etching of 4H-SiC (0001) Substrates	T. Okamoto ¹ , Y. Sano ¹ , K. Tachibana ¹ , K. Arima ¹ , A. N. Hattori ¹ , K. Yagi ² , J. Murata ¹ , S. Sadakuni ¹ and K. Yamauchi ¹	¹ Osaka University ² Ebara Corp.