

PROGRAM

【July 6th, Wednesday】

Opening Session (13:00-13:10)

Plenary Session (13:10-14:00)

Chair : J. Motohisa (*Hokkaido University*)

Plenary 13:10 (50min +poster) ... 1
III-V Semiconductor nanowires and their applications
T. Fukui
Hokkaido University

Session We1: Flexible Electronics and 2D Materials (14:00-15:06)

Chair : J. Motohisa (*Hokkaido University*)

We1-1 [Invited] 14:00 (30min+poster) ... 3
Development of the printable functional materials for flexible devices
T. Kamata, K. Suemori and M. Yoshida
National Institute of Advanced Industrial Science and Technology

We1-2 14:30 (3min+poster) ... 5
Solution-processed top-gate organic transistor memory with small molecule-polymer composite as a charge storage layer
T. Nagase, F. Shiono, T. Kobayashi and H. Naito
Osaka Prefecture University

We1-3 14:33 (3min+poster) ... 7
Sticking plaster-type disposable healthcare wearable device
Y. Yamamoto, S. Harada, W. Honda, T. Arie, S. Akita and K. Takei
Osaka Prefecture University

We1-4 14:36 (3min+poster) ... 9
Optimization in microwave synthesis of copper phthalocyanine for organic thin-film transistors
S. Mizuka* and M. Kitamura**,**
*Kobe University, **The University of Tokyo

We1-5 14:39 (3min+poster) ... 11
Design and analysis of piezoelectric MEMS vibration energy harvesters
M. Aramaki*, K. Kariya*, T. Yoshimura*, S. Murakami** and N. Fujimura*
*Osaka Prefecture University, **Technology Research Institute of Osaka Prefecture

We1-6 14:42 (3min+poster) ... 13
Carrier control in Ce doped Si thin films using organic ferroelectric-gate field effect transistors
H.Nonami, Y.Miyata, T.Yoshimura, A.Ashida and N.Fujimura
Osaka Prefecture University

We1-7 14:45 (3min+poster) ... 15
Synthesis of graphene by microwave surface-wave plasma chemical vapor deposition
S. Ichimura**, Y. Hayashi** and Masayoshi Umeno*
*Chubu University, **Okayama University

We1-8 14:48 (3min+poster) ... 19
Study of direct growth mechanism of multilayer graphene by precipitation method using W capping layer
J. Yamada, Y. Ueda, T. Maruyama and S. Naritsuka
Meijo University

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Investigation of growth mechanism on non-catalytic CVD growth of graphene on sapphire substrate Y. Ueda, J. Yamada, T. Maruyama and S. Naritsuka Meijo University			
We1-10	14:54 (3min+poster)	...	23
Graphene nanoribbons grown on cleaved SiC(1-100) surfaces A. Shioji, T. Takasaki, T. Kajiwara, A. Visikovskiy and S. Tanaka Kyushu University			
We1-11	14:57 (3min+poster)	...	25
Fabrication of Molybdenum Disulfide (MoS ₂) Thin Film at Low Temperature under Atmospheric Pressure by Mist CVD S. Sato and T. Kawaharamura Kochi University of Technology			
We1-12	15:00 (3min+poster)	...	27
Field Effect Modulation of Interlayer Exciton Photoluminescence in 1L-MoS ₂ /1L-MoSe ₂ van der Waals Hetero-structure S. Mouri*,**, W. Zhang*, Y. Miyauchi* and K. Matsuda* *Kyoto University *Ritsumeikan University			
We1-13	15:03 (3min+poster)	...	29
Cross-sectional STM/STS study of 2D-topological insulator AlSb/InAs/GaSb/AlSb quantum wells T. Ando, S. Kaku and J. Yoshino Tokyo Institute of Technology			

Break (15:06-15:16)

Session We2: Solar Cells and Optical Devices (15:16-16:46)

Chairs : H. Tampo (AIST)

We2-1 [Invited]	15:16 (30min+poster)	...	31
Recent progress in development of Cu(InGa)(SeS) ₂ solar cells H. Sugimoto Solar Frontier K.K.			
We2-2	15:46 (3min+poster)	...	33
Degradation mechanism of Cu(In, Ga)Se ₂ solar cells induced by air exposure J. Nishinaga, Y. Kamikawa, T. Koida and H. Shibata National Institute of Advanced Industrial Science and Technology			
We2-3	15:49 (3min+poster)	...	35
Fabrication of Cu ₂ ZnSnS ₄ thin films with Cl-ion-free solution by mist CVD method T. Ikenoue, Y. Watanabe, M. Miyake and T. Hirato Kyoto University			
We2-4	15:52 (3min+poster)	...	37
Solution based mist-CVD technique for hybrid organic-inorganic perovskite H. Nishinaka and M. Yoshimoto Kyoto Institute of Technology			
We2-5	15:55 (3min+poster)	...	39
Stability and controllability of InGaAs/GaAsP wire-on-well (WoW) structure for multi-junction solar cells H. Cho, K. Toprasertpong, H. Sodabanlu, K. Watanabe, M. Sugiyama and Y. Nakano The University of Tokyo			

We2-6	15:58 (3min+poster)	...	41
Effects of Si gas flow sequence on electrical characteristics of GaAsN films grown by atomic layer epitaxy Y. Yokoyama*, M. Kawano, M. Horikiri, T. Haraguchi, T. Yamauchi, H. Suzuki, T. Ikari and A. Fukuyama University of Miyazaki			
We2-7	16:01 (3min+poster)	...	43
2D photocurrent excitation spectroscopy on two-step photon absorption in InAs quantum dot intermediate band solar cells R. Tamaki, Y. Shoji and Y. Okada The University of Tokyo			
We2-8	16:04 (3min+poster)	...	45
Thermal carrier-escape process from the intermediate band in InAs/GaAs quantum dot solar cells K. Hirao, S. Asahi, S. Watanabe, T. Kaizu, Y. Harada and T. Kita Kobe University			
We2-9	16:07 (3min+poster)	...	47
Observation of mini-band formation in the ground and high-energy electronic states of super-lattice solar cells T. Usuki*, K. Matsuuchi**, T. Nakamura**, K. Toprasertpong*, T. Ikari**, A. Fukuyama**, M. Sugiyama* and Y. Nakano* *The University of Tokyo, **University of Miyazaki			
We2-10	16:10 (3min+poster)	...	49
Investigation of bulk-like carrier transport and effective mobility in multiple quantum well solar cells K. Toprasertpong*, T. Inoue*, K. Watanabe*, T. Kita**, M. Sugiyama* and Y. Nakano* *The University of Tokyo, **Kobe University			
We2-11	16:13 (3min+poster)	...	51
Investigation of thermal carrier escape from an AlGaAs/GaAs single quantum well by temperature-dependent I-V measurements A. Iwamoto, T. Murakami, K. Matsuochi, T. Nakamura, D. Ohori, T. Ikari, and A. Fukuyama Miyazaki University			
We2-12	16:16 (3min+poster)	...	53
InGaN/AlGaIn/GaN polarization engineered water splitting photocathode under visible light irradiation A. Nakamura*, K. Fujii**, Y. Nakano* and M. Sugiyama* *The University of Tokyo, **The University of Kitakyushu			
We2-13	16:19 (3min+poster)	...	55
Emission properties of Er ³⁺ ions in GaAs modulated by photonic crystal cavities M. Ogawa, T. Kojima, K. Sakuragi, N. Fujioka, A. Koizumi and Y. Fujiwara Osaka University			
We2-14	16:22 (3min+poster)	...	57
Photonic-crystal structure grown by tertiary-butyl arsine-based MOVPE for photonic-crystal lasers M. Yoshida, M. De Zoysa, K. Ishizaki, R. Hatsuda and S. Noda Kyoto University			
We2-15	16:25 (3min+poster)	...	59
Strain engineering in Ge photonic devices on Si using a cross beam structure M. Nishimura, Y. Ishikawa and K. Wada The University of Tokyo			
We2-16	16:28 (3min+poster)	...	61
Two-color laser based on a wafer-bonded coupled multilayer cavity for novel terahertz LED H. Ota, X. M. Lu, N. Kumagai, T. Kitada and T. Isu Tokushima University			

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GaN-based VCSEL using a periodic gain structure consisting of two GaInN 5QWs		
K. Matsui, T. Furuta, Y. Kozuka, T. Akagi, T. Takeuchi, S. Kamiyama, M. Iwaya and I. Akasaki		
Meijo University		
We2-18	16:34 (3min+poster)	... 65
Controlling emission properties of Eu-doped GaN by microcavity		
T. Inaba, T. Kojima, A. Koizumi and Y. Fujiwara		
Osaka University		
We2-19	16:37 (3min+poster)	... 67
Localized emission from quantum-dot-like InGaN islands formed in N-polar InGaN/GaN multiple quantum wells		
T. Tanikawa, K. Shojiki, R. Nonoda, S. Kuboya, R. Katayama and T. Matsuoka		
Tohoku University		
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Development of ZnSe-based organic-inorganic hybrid UV-APDs array		
T. Abe, S. Uchida, K. Tanaka, H. Kasada, K. Ando, and K. Ichino		
Tottori University		
We2-21	16:43 (3min+poster)	... 71
Development of ultraviolet optical modulator using non-polar ZnO/ZnMgO multiple quantum wells		
S. Iwagashita, T. Abe, M. Yamamoto, H. Kasada, K. Ando and K. Ichino		
Tottori University		

Break (16:46-16:56)

Poster Session I (We1, We2) (16:56-19:00)

Dinner (19:00-20:00)

Rump Session (20:00-21:30)

“Novel Energy Harvesting Technologies Supporting IoT Society”

Organizer: M. Sugiyama (*The University of Tokyo*)
N. Fujimura (*Osaka Prefecture University*)

Panelists: H. Akinaga (*AIST*): Moderator
K. Uchida (*Tohoku University*)
Y. Hikosaka (*Fujitsu Semiconductor Ltd*)
K. Takeuchi (*NTT*)
T. Yoshimura (*Osaka Pref. University*)

【July 7th, Thursday】

Session Th1: Characterization / Spintronics (8:30-10:15)

Chair : M. Kitamura (*Kobe University*)

Th1-1 [Invited]	08:30 (30min+poster)	...	73
Study on kinetics and thermodynamics of 4H-SiC thermal oxidation for the control of MOS interface characteristics K. Kita, H. Hirai, Y. Fujino and H. Kajifusa The University of Tokyo			
Th1-2	09:00 (3min+poster)	...	75
Semi-conducting characteristics of nano-polycrystalline diamond synthesized by high pressure and high temperature technique A. Ishikawa, R. Fukuta, F. Ishikawa, M. Matsushita, H. Ohfuji, T. Shinmei and T. Irifune Ehime University			
Th1-3	09:03 (3min+poster)	...	77
Stress-dependent spectroscopy on single-crystalline diamond R. Ishii*, S. Shikata**, M. Funato* and Y. Kawakami* *Kyoto University, **Kwansei Gakuin University			
Th1-4	09:06 (3min+poster)	...	79
Effects of post-growth annealing temperature on photoluminescence from phosphorus doped n ⁺ Ge on Si N. Higashitarumizu, K. Wada, and Yasuhiko Ishikawa The University of Tokyo			
Th1-5	09:09 (3min+poster)	...	81
Rare earth ion doping in Ge deposited by molecular beam epitaxy Y. Miyata, K. Ueno, T. Yoshimura, A. Ashida and N. Fujimura Osaka Prefecture University			
Th1-6	09:12 (3min+poster)	...	83
Raman scattering studies of strained Ge films on Si substrates S. Sakai*, K. Yamamura*, H. Nishigaki*, N. Hasuike*, H. Harima* and W. S. Yoo** *Kyoto Institute of Technology, **Wafer Masters, Inc.			
Th1-7	09:15 (3min+poster)	...	85
Effect of carrier on magneto-transport characteristics of Ce doped Si films Y. Miyata, T. Yoshimura, A. Ashida and N. Fujimura Osaka Prefecture University			
Th1-8	09:18 (3min+poster)	...	87
Effect of nitrogen source on optical properties of Eu- and Mg-codoped GaN grown by molecular beam epitaxy H. Tateishi, H. Sekiguchi, K. Tomoyasu, K. Yamane, H. Okada and A. Wakahara Toyohashi University of Technology			
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Investigation on energy transfer process in Eu-doped GaN by two-wavelength excited photoluminescence measurements H. Kogame, K. Okada, T. Kojima, A. Koizumi, and Y. Fujiwara Osaka University			
Th1-10	09:24 (3min+poster)	...	91
Valence state control of Eu ions in Eu-doped GaN grown by organometallic vapor phase epitaxy T. Nunokawa, A. Koizumi, M. Matsuda, W. Zhu and Y. Fujiwara Osaka University			

Th1-11	09:27 (3min+poster)	...	93
Controllable energy transfer between Tm ³⁺ and Yb ³⁺ ions in Tm,Yb-codoped ZnO grown by sputtering-assisted MOCVD H. Kamei, S. Takano, G. Yoshii, T. Kojima, A. Koizumi and Y. Fujiwara Osaka University			
Th1-12	09:30 (3min+poster)	...	95
Elastic properties of wurtzite-type BN evaluated by nanoindentation M. Deura*, K. Kutsukake*, Y. Ohno*, I. Yonenaga* and T. Taniguchi** *Tohoku University, **National Institute for Materials Science			
Th1-13	09:33(3min+poster)	...	97
Raman spectroscopy study of homoepitaxially grown hexagonal boron nitride K. Watanabe and T. Taniguchi National Institute for Materials Science			
Th1-14	09:36(3min+poster)	...	99
Stimulated emission from optically-pumped semipolar AlGaIn/AlIn quantum well S. Ichikawa, M. Funato and Y. Kawakami Kyoto University			
Th1-15	09:39 (3min+poster)	...	101
Improvement of p-type electrical property by polarization-doping in graded-AlGaIn layer T. Yasuda*, S. Katsuno*, N. Kuwabara*, T. Takeuchi*, M. Iwaya*, S. Kamiyama*, I. Akasaki*,** and H. Amano** *Meijo University, **Nagoya University			
Th1-16	09:42 (3min+poster)	...	103
Characterization of III-nitride semiconductors using electron-beam-induced-current (EBIC) measurement E. Oku, T. Araki and Y. Nanishi Ritsumeikan University			
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Infrared reflectance spectroscopy and Raman scattering spectroscopy of free-standing GaN bulk substrates K. Kanegae, M. Kaneko, T. Kimoto, M. Horita and J. Suda Kyoto University			
Th1-18	09:48 (3min+poster)	...	107
Mechanism of broadband visible emission from InGaIn/nano-AlIn LED by temperature-dependent photoluminescence T. Arakawa*, M. Mathew**, A. Chauhan*, K. Miyajima***, Y. Nakano* and M. Sugiyama* *The University of Tokyo, **Central Electronics Engineering Research Institute India, ***Tokyo University of Science			
Th1-19	09:51 (3min+poster)	...	109
Evaluation of internal quantum efficiency of InGaIn based LEDs by photocurrent measurement S. Usami, Y. Honda and H. Amano Nagoya University			
Th1-20	09:54 (3min+poster)	...	111
Degradation of InGaIn/GaN SQW structure under optical irradiation O. Ueda*, A. A. Yamaguchi*, S. Tanimoto*, S. Nishibori*, K. Kumakura** and H. Yamamoto** *Kanazawa Institute of Technology, **NTT Corporation			
Th1-21	09:57 (3min+poster)	...	113
Fluorine plasma treatment on InN films grown by RF-MBE S. Fukushima, S. Usuda, T. Araki and Y. Nanishi Ritsumeikan University			

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Damping constant in a nanoscale magnetic tunnel junction evaluated by homodyne-detected ferromagnetic resonance			
M. Shinozaki, E. Hirayama, S. Kanai, H. Sato, F. Matsukura and H. Ohno			
Tohoku University			
Th1-23	10:03 (3min+poster)	...	117
Magnetic field angle dependence of switching field in CoFeB-MgO magnetic tunnel junction with perpendicular easy axis			
J. Igarashi, E. C. I. Enobio, H. Sato, S. Fukami, F. Matsukura and H. Ohno			
Tohoku University			
Th1-24	10:06 (3min+poster)	...	119
Spin-orbit torque induced switching in three-terminal devices with a Ta/W channel			
A. Ohkawara, T. Anekawa, C. Zhang, S. Fukami and H. Ohno			
Tohoku University			
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Fabrication of TiO ₂ films on Ge and Si as tunnel barrier for spin injection			
H. Inaba, T. Koike, A. Ono, M. Oogane and Y. Ando			
Tohoku University			
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Electrical spin-injection into n-type germanium using Co ₂ Fe _{0.4} Mn _{0.6} Si Heusler alloy film			
T. Koike*, M. Oogane*, A. Ono*, T. Takada**, H. Saito** and Y. Ando*			
*Tohoku University, ** National Institute of Advanced Industrial Science and Technology			

Break (10:15-10:25)

Poster Session II (Th1) (10:25-12:00)

Lunch (12:00-13:00)

Session Th2: Growth I (13:00-14:45)

Chair : T. Araki (Ritsumeikan University)

Th2-1 [Invited]	13:00 (30min+poster)	...	125
Growth dynamics of epitaxial interfaces using in situ synchrotron X-ray diffraction			
M. Takahashi and T. Sasaki			
National Institutes for Quantum and Radiological Science and Technology			
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Formation of stacking fault in high-growth-rate InGaN on (1-101) GaN stripe/Si(001)			
M. Kushimoto, Y. Honda and H. Amano			
Nagoya University			
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Three dimensional semi/nonpolar InGaN quantum wells toward phosphor-free polychromatic emitters			
Y. Matsuda, M. Funato and Y. Kawakami			
Kyoto University			
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Thermodynamic analysis of In- and N-polar InN growth by metalorganic vapor phase epitaxy			
A. Kusaba*, Y. Kangawa*, K. Kakimoto*, K. Shiraishi** and A. Koukitu***			
*Kyushu University, **Nagoya University, ***Tokyo University of Agriculture and Technology			
Th2-5	13:39 (3min+poster)	...	133
Dependence of group-III source ratio on photoluminescence of N-polar (000-1) InGaN grown by metalorganic vapor phase epitaxy			
R. Nonoda, T. Tanikawa, K. Shojiki, T. Kimura, S. Tanaka, S. Kuboya, R. Katayama and T. Matsuoka			
Tohoku University			
Th2-6	13:42 (3min+poster)	...	135
High temperature growth of thick InGaN ternary alloy by tri-halide vapor phase epitaxy			
N. Matsumoto, M. Meguro, K. Ema, Q.-T. Thieu, R. Togashi, H. Murakami, Y. Kumagai and A. Koukitu			
Tokyo University of Agriculture and Technology			
Th2-7	13:45 (3min+poster)	...	137
High-temperature annealing of sputtered AlN on sapphire			
H. Miyake*, C.-H. Lin*, Y. Liu*, K. Hiramatsu*, E. Komatsu*, N. Terayama**			
*Mie University, **Shinko Seiki Co., Ltd.			
Th2-8	13:48 (3min+poster)	...	139
Study on nitridation of α -(AlGa) ₂ O ₃ using rf plasma for AlGaIn growth			
A. Buma*, N. Masuda*, M.Oda**, T. Hitora**, T. Araki* and Y. Nanishi*			
*Ritsumeikan University, **FLOSFIA			
Th2-9	13:51 (3min+poster)	...	141
Evolution of strain and dislocations during ESVP growth of AlN			
K. Kishimoto, P.T. Wu, M. Funato and Y. Kawakami			
Kyoto University			
Th2-10	13:54 (3min+poster)	...	143
Epitaxial growth of Mg-doped AlN thin films at low substrate temperature using reactive sputtering technique			
T. Myoken*, K. Ozaki*, T. Ishihara**, H. Izumi** and T. Kita*			
*Kobe University, **Hyogo Prefectural Institute of Technology			

Th2-11	13:57 (3min+poster)	...	145
Surface treatment of sapphire substrates for AlN growth R. Yoshizawa, S. Tamaki, H. Miyake and K. Hiramatsu Mie University			
Th2-12	14:00 (3min+poster)	...	147
Structural property of boron-doped AlN grown by metal-organic vapor phase epitaxy M. Imura*, Y. Ota**, R.G. Banal* and Y. Koide* * National Institute for Materials Science, **Tokyo Metropolitan Industrial Technology Research Institute			
Th2-13	14:03 (3min+poster)	...	149
Crystal growth modes of hexagonal boron nitride films on a c-plane sapphire substrate grown by low pressure chemical vapor deposition N. Umehara, A. Masuda, T. Shimizu, T. Kouno, H. Kominami and K. Hara Shizuoka University			
Th2-14	14:06 (3min+poster)	...	151
Structural and optical properties of Eu doped GaN nanocolumns grown by RF-plasma-assisted molecular beam epitaxy K. Ozaki*, H. Sekiguchi*, T. Imanishi*, K. Yamane*, H. Okada*, K. Kishino** and A. Wakahara* *Toyoashi University of Technology, **Sophia University			
Th2-15	14:09 (3min+poster)	...	153
Selective-area growth of GaN on trench-patterned nonpolar free-standing GaN substrates S. Okada, H. Iwai, H. Miyake and K. Hiramatsu Mie University			
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Selective-area RF-MBE growth of GaN: influences of mask materials N. Tamaki, A. Sonoda, A. Onodera and J. Motohisa Hokkaido University			
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Effects of GaN low-temperature buffer layer on GaN surface flatness grown on Al templates Y. Hoshikawa, Y. Suzuki, K. Uehara, T. Onuma, T. Yamaguchi and T. Honda Kogakuin University			
Th2-18	14:12 (3min+poster)	...	159
Activation free energies for formation and dissociation of N-N bond in a Na-Ga melt T. Kawamura**, H. Imabayashi**, M. Maruyama**, M. Imade**, M. Yoshimura**, Y. Mori** and Y. Morikawa** *Mie University, **Osaka University			
Th2-19	14:15 (3min+poster)	...	161
Selective GaN growth on 6H-SiC substrate with femtosecond-laser-induced periodic nanostructures R. Miyagawa, Y. Miyaji, M. Miyoshi, T. Egawa and O. Eryu Nagoya Institute of Technology			
Th2-20	14:18 (3min+poster)	...	163
MOVPE growth and annealing of Ge buffer layer on Si substrate for high-crystalline-quality GaAs epitaxial layer R. Nakao, T. Yamamoto and S. Matsuo NTT Corporation			
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Effect of initial stage of Ge growth on dark leakage current in near-infrared Ge photodiodes on Si K. Ito, Y. Miyasaka and Y. Ishikawa The University of Tokyo			

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Au thickness dependent solid phase crystallization of amorphous Ge on insulating substrate by catalytic Au insertion R. Mochii, K. Kudo, T. Nomitsu, K. Takakura and I. Tsunoda National Institute of Technology, Kumamoto College			
Th2-23	14:33 (3min+poster)	...	169
Low-temperature formation of Sn-doped Ge on insulator by Au-induced lateral crystallization for flexible electronics T. Sakai, R. Matsumura, T. Sadoh and M. Miyao Kyushu University			
Th2-24	14:36 (3min+poster)	...	171
Enhancement of solid-phase crystallization of amorphous Ge on insulating substrate by electron stimulated nucleation K. Okamoto, K. Tomouchi, E. Murakami, M. Yoneoka, K. Takakura and I. Tsunoda National Institute of Technology, Kumamoto College			
Th2-25	14:39 (3min+poster)	...	173
Temperature dependence of photoluminescence properties of ZnS grown by mist CVD K. Uno, Y. Asano, Y. Yamasaki and I. Tanaka Wakayama University			
Th2-26	14:42 (3min+poster)	...	175
Effects of ion irradiation in sputter-deposition of TiNi films N. Ikenaga and N. Sakudo Kanazawa Institute of Technology			

Break (14:45-14:55)

Session Th3: Quantum Optics / Growth II (14:55-15:58)

Chair : R. Katayama (Osaka University)

Th3-1 [Invited]	14:55 (30min+poster)	...	177
Application of quantum information technology for advanced sensing S. Takeuchi Kyoto University			
Th3-2	15:25 (3min+poster)	...	179
Density control of InP-based nanowires and nanowire quantum dots S. Yanase, H. Sasakura, S. Hara and J. Motohisa Hokkaido University			
Th3-3	15:28 (3min+poster)	...	181
GaAs/AlAs triple-coupled cavity with InAs quantum dots for ultrafast wavelength conversion devices X. M. Lu, N. Kumagai, T. Kitada and T. Isu Tokushima University			
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Selective-area MOVPE growth of InGaAs nanowires for optical communication band K. Chiba*, K. Tomioka**, F. Ishizaka*, A. Yoshida*, J. Motohisa* and T. Fukui* *Hokkaido University, **JST-PRESTO			

Th3-5	15:34 (3min+poster)	...	185
Photoluminescence spectra of zinc-blend and wurtzite phases coexisted Si-doped GaAs nanowires			
M. Nakano*, K. Sugihara*, D. Ohori*, T. Ikari*, Y. Honda**, H. Amano** and A. Fukuyama*			
*Miyazaki University, **Nagoya University			
Th3-6	15:37 (3min+poster)	...	187
Post growth material conversion of GaAs nanowires			
K. Nishioka and F. Ishikawa			
Ehime University			
Th3-7	15:40 (3min+poster)	...	189
Growth of GaAs/GaAsBi heterostructure nanowires by molecular beam epitaxy			
K. Takada, Y. Kubota, Y. Akamatsu, P. Patil, F. Ishikawa and S. Shimomura			
Ehime University			
Th3-8	15:43 (3min+poster)	...	191
Analysis of the Ga incorporation mechanism in selectively-grown InGaAs on Si (111)			
T. Watanabe, Y. Nakano and M. Sugiyama			
The University of Tokyo			
Th3-9	15:46 (3min+poster)	...	193
Evaluation of localized state of low-temperature-grown $\text{In}_x\text{Ga}_{1-x}\text{As}$ using Hall effect measurement			
S. Tsurisaki, Y. Tominaga and Y. Kadoya			
Hiroshima University			
Th3-10	15:49 (3min+poster)	...	197
Crystalline state of low-temperature-grown $\text{In}_x\text{Ga}_{1-x}\text{As}$ - In the case of In content dependence -			
S. Hirose, K. Hirayama, Y. Tominaga and Y. Kadoya			
Hiroshima University			
Th3-11	15:52 (3min+poster)	...	199
Annealing effect to amorphous $\text{In}_x\text{Ga}_{1-x}\text{As}$ on InP substrate			
K. Hirayama*, Y. Tominaga*, Y. Kadoya* and H. Morioka**			
*Hiroshima University, **Bruker AXS K.K.			
Th3-12	15:55 (3min+poster)	...	201
MOVPE growth of metamorphic InAsSb on GaAs substrate for mid-infrared photonic devices			
K. Yoshimoto, Y. Imamura and M. Arai,			
Miyazaki University			

Break (15:58-16:08)

Poster Session III (Th2, Th3) (16:08-18:00)

Break (18:00-19:00)

Banquet (19:00-21:00)

【July 8th, Friday】

Session Fr1: Electron Devices / Oxide Semiconductors (8:30-10:18)

Chair : J. Suda (Kyoto University)

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Recent progress in development of gallium oxide power devices
M. Higashiwaki*, M. H. Wong*, K. Konishi*, K. Sasaki**,*, K. Goto**,**, Q. T. Thieu***, R. Togashi***, H. Murakami***, Y. Kumagai***, B. Monemar***,****, A. Kuramata**, T. Masui** and S. Yamakoshi**
*National Institute of Information and Communications Technology, **Tamura Corporation, ***Tokyo University of Agriculture and Technology, ****Linköping University
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T. Maeda*, M. Okada**, M. Ueno**, Y. Yamamoto**, M. Horita* and J. Suda*
*Kyoto University, **Sumitomo Electronic Industries, Ltd.
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H. Hirai and K. Kita
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K. Iseri*, M. Matsuzaki*, M. Yoneoka*, I. Tsunoda*, K. Takakura*, E. Simoen**, A. Veloso**, C. Claeys**
National Institute of Technology, Kumamoto College*, imec**
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S. Fujikawa*, K. Isono*, Y. Harada*, I. Watanabe**, Y. Yamashita**, A. Endoh**, S. Hara**, A. Kasamatsu** and H. Fujishiro*
*Tokyo University of Science, **National Institute of Information and Communications Technology

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K. Akaiwa*,**, K. Kaneko**, K. Ichino* and S. Fujita**			
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K. Kaneko*,**, M.Kitajima*, T. Uchida*, M. Oda*,**, A. Takatsuka**, T. Hitora** and S. Fujita*			
*Kyoto University, **FLOSFIA			
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*Kyoto Institute of Technology, **Fukuda Crystal Laboratory, ***Tohoku University			
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Break (10:18-10:28)

Poster Session IV (Fr1) (10:28-12:00)

Lunch (12:00-13:00)

Special Session (13:00-16:00)
“Forefront of Semiconductor Lasers”
Chair : S. Fujita (Kyoto University)

Introduction 13:00 (5min)

S. Fujita
Kyoto University

Special Tutorial 13:05 (75min+poster)

System, Device, and Material ~ A Learning from Optical Communication ~
Y. Suematsu
Honorary Professor of Tokyo Institute of Technology

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Tsurugi-Photonics Foundation

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