

International Workshop on Advanced Smart Materials and Engineering for Nano- and Bio-Technologies

Date: 13th–14th July, 2017

Venue: Large Conference Room D1-201, Graduate School of Engineering, Rokkodai 2nd Campus,
Kobe University, Japan

◆ Thursday, 13th July, 2017

Bio-Sensing and Functional Materials

| Time | Speaker | Title |
|-------------|---|---|
| 13:30–13:35 | | Opening Remark |
| 13:35–14:00 | Chiaki Ogino (Kobe University, Japan) | <i>Cancer treatment with inorganic nanoparticle</i> |
| 14:00–14:25 | Hideto Minami (Kobe University, Japan) | <i>Emulsion Polymerization with a Biosurfactant</i> |
| 14:25–14:50 | Takashi Nishino (Kobe University, Japan) | <i>Eco-, Nano²-Composites</i> |
| 14:50–15:15 | Minoru Fujii (Kobe University, Japan) | <i>Bio-photonics applications of silicon quantum dots</i> |
| 15:15–15:30 | Coffee Break | |
| 15:30–15:55 | Chiya Numako (Chiba University, Japan) | <i>Characterizations for specific bio-accumulated elements and biominerals</i> |
| 15:55–16:20 | Mitsuo Umetsu (Tohoku University, Japan) | <i>Nanobiotechnology from material-binding biomolecules for nanomaterial engineering</i> |
| 16:20–16:45 | Tatsuo Maruyama (Kobe University, Japan) | <i>Intracellular molecular self-assembly of a peptide derivative that can kill cancer cells</i> |
| 16:45–16:50 | | Closing Remark |

◆ Friday, 14th July, 2017

Advanced Nanostructured Materials for Optoelectronic and Photovoltaic Devices

| Time | Speaker | Title |
|-------------|---|--|
| 08:55–09:00 | Takashi Kita (Kobe University, Japan) | Opening Remark |
| 09:00–10:00 | Jiang Wu (University College London, UK) | <i>III-V optoelectronic devices directly grown on Si platform</i> |
| 10:00–10:40 | Shinya Kano (Kobe University, Japan) | <i>Colloidal quantum-dot thin film for electronic and optoelectronic devices</i> |
| 10:40–10:55 | Coffee Break | |
| 10:55–11:35 | Jun Tatebayashi (Osaka University, Japan) | <i>Recent progress and future prospects of nanowire-based light emitters</i> |
| 11:35–12:05 | Toshiyuki Kaizu (Kobe University, Japan) | <i>Broadband polarization control of closely-stacked InAs/GaAs quantum dots for semiconductor optical amplifier</i> |
| 12:05–13:30 | Lunch Break | |
| 13:30–14:10 | Ryo Tamaki (The University of Tokyo, Japan) | <i>Full spectrum quantum efficiency on III-V quantum dot solar cells</i> |
| 14:10–14:40 | Shigeo Asahi (Kobe University, Japan) | <i>Two-step photon up-conversion solar cell with a voltage booster hetero-interface</i> |
| 14:40–15:20 | Tooru Tanaka (Saga University, Japan) | <i>Intermediate band solar cells based on II-VI dilute oxide semiconductors</i> |
| 15:20–15:35 | Coffee Break | |
| 15:35–16:35 | Christopher A. Broderick (Tyndall National Institute, Ireland) | <i>Theory of dilute bismide semiconductor alloys: emerging materials for GaAs-based near- and mid-infrared photonics</i> |
| 16:35–17:05 | Yukihiro Harada (Kobe University, Japan) | <i>Photoluminescence spectroscopy of isoelectronic impurity doped GaAs</i> |
| 17:05–17:45 | Fumitaro Ishikawa (Ehime University, Japan) | <i>Looking for extra compound semiconductor nanowires</i> |
| 17:45–17:50 | Takashi Kita (Kobe University, Japan) | Closing Remark |
| 19:00– | Internal Meeting | |