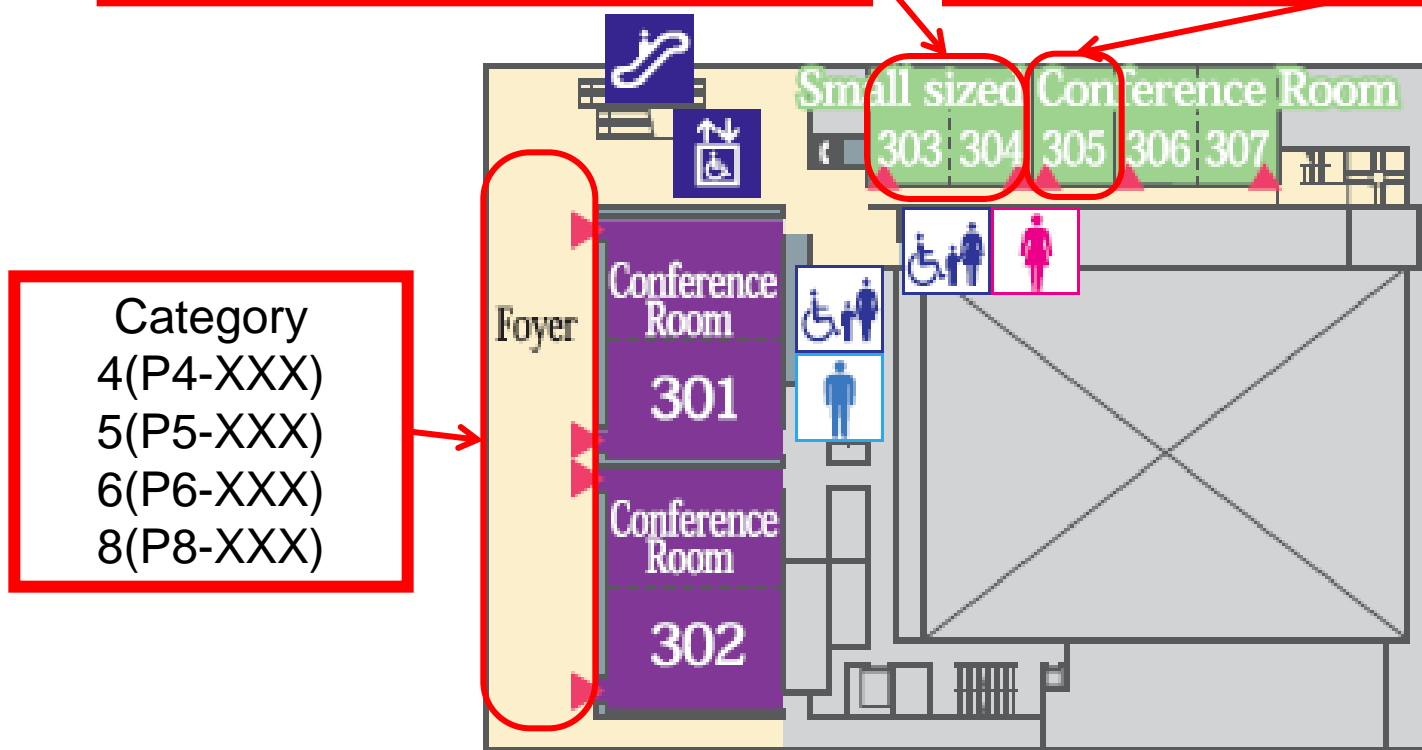


# Layout of POSTER session

- ✓ Authors are kindly asked to put up their posters from **2 September as soon as possible (from 9:00 on Tuesday)**, to keep them at least to **4 September (17:30 on Thursday)**.
- ✓ Odd-numbered and Even-numbered poster authors must be present in the poster sessions on Tuesday and Wednesday, respectively.

Category 1(P1-XXX), 7(P7-XXX)

Category 2(P2-XXX), 3(P3-XXX)



Category  
4(P4-XXX)  
5(P5-XXX)  
6(P6-XXX)  
8(P8-XXX)

1. Growth and preparation techniques; bulk materials, thin films, nanostructured materials, nanoscale structures, 2. Characterization techniques, including large scale facilities, 3. Computational material design and modeling, 4. Photovoltaic materials and applications (CIGSSe, CZTS, CTS, etc.), 5. New high-efficiency solar-cell design based on multi-junction, nano-dots, mid-gap-state, and others 6. Light emitting materials and devices, 7. Spintronic, thermoelectric, multiferroic and superconductive materials and applications, 8. Miscellaneous

[P1-001] S. N. Mustafaeva: Influence of the Composition of  $(\text{TlInSe}_2)_{1-x}(\text{TlGaTe}_2)_x$  Alloys on Their Dielectric Properties

[P1-002] S. N. Mustafaeva: Frequency-Dependent Dielectric Losses in Diluted  $\text{TlIn}_{1-x}\text{Er}_x\text{Se}_2$  Solid Solutions

[P1-003] N. Z. Gasanov:  $\text{TlIn}_{1-x}\text{Er}_x\text{S}_2$  ( $x = 0-0.01$ ) Solid Solutions and their Optical Properties

[P1-004] K. Mochizuki: Thin Films Growth of  $\text{Cd}_{1-x}\text{Zn}_x\text{Te}$  for X-ray Imaging Sensor

[P1-005] K. Mochizuki: Growth of  $\text{PbSnI}_4$  and Its Application for Flat Panel X-ray Image Sensor

[P1-006] J. Petit: Low absorption  $\text{ZnGeP}_2$  single crystals for tunable mid IR laser applications

[P1-007] S. Thiru: In-situ RHEED observation of  $\text{CuGaSe}_2/\text{CuInSe}_2$  super lattice grown on GaAs (001)

[P1-008] O. Oltulu: Band Gap and Optical Transmission in the Fibonacci Type One- Dimensional  $\text{A}_5\text{B}_6\text{C}_7$  Based Photonic Crystals

[P1-009] R. Koizumi: Manufacture of electrode using nanorod-constructed ZnO for dye-sensitized solar cell

[P1-010] Y. N. Aliyeva: Preparation and properties of nanodimensional diffraction lattice on the base of SmS

[P1-011] M. K. G. Odarve: Growth and Characteristics of Amorphous Silica-Modified Polyaniline Films for Ammonia Sensor Application

[P1-012] R. B. Unabia: Synthesis and characterization of nanocrystalline hydroxyapatite and biphasic calcium phosphate using  $\text{Ca}(\text{OH})_2$  and  $(\text{NH}_4)_2\text{H}_2\text{P}_2\text{O}_4$

[P1-013] J. G. Fernando: Effect of supercritical carbon dioxide treatment on the polarons of HCl-doped polyaniline films

[P1-014] S. A. Vhanalkar: A mild hydrothermal route to synthesis of CZTS nanoparticles ink for solar cell applications

[P1-015] T. Kato: Growth and Characterization of III-group element doped  $\text{ZnSnAs}_2$  Thin Films on InP substrates

[P1-016] H. Oomae: Low-temperature heteroepitaxial growth of InAlAs layers on  $\text{ZnSnAs}_2/\text{InP}$ (001)

[P1-017] R. Katsube: Electrical properties of  $\text{Zn}_3\text{P}_2$  bulk crystals grown from In-P-Zn solution

[P1-018] J. P. B. Ontolan Jr.: Properties of in situ HCl-doped emeraldine polyaniline on n-Si(100) substrate for rectifying diode application

[P1-019] K. Kushida: Crystallization mechanism of sol-gel synthesized spinel  $\text{LiMn}_2\text{O}_4$

[P1-020] A. H. Bayramov: Semiconducting asphaltene thin films: preparation and characterization.

[P1-021] A. H. Bayramov: Optimization of preparation technology of ZnO and ZnO:Al thin films for solar cell applications

[P1-022] R. M. Vequizo: Morphological and structural modifications of chemically-prepared emeraldine polyaniline and zinc oxide in PAni/ZnO heterostructure

[P1-023] O. Adiguzel: Macro and Micro Scale Aspects of Phase Transitions in Shape Memory Alloys

[P1-024] H. Iha: Effect of arsenic cracking on In incorporation into selectively-grown InGaAs layer by MBE

[P1-025] E. Hajiyev:  $\text{YbAs}_4\text{Se}_7$  thin films epitaxially growth

[P1-026] S. L. Manulat: Parameters that Influence the Growth of ZnO Nanostructures Grown via Chemical Bath Deposition Technique

[P1-027] R. Noonuruk: Effect of Annealing Temperature on Crucial Optical Properties of Fluoride doped Tin Oxide thin films grown by sol-gel route

[P1-028] R. Noonuruk: Effects of Zn-dopant on structural properties and electrochromic performance of sol-gel derived NiO thin films

[P1-029] M. Yoneta: Optical property of multi-stacked CdSe/ZnSe quantum dot layers fabricated by using alternate beam supplying method

[P1-030] Y. Akaki: Synthesis of Porous  $\text{CuInS}_2$  Crystals

[P1-031] A. Mendez-Lopez: Synthesis and exfoliation studies of layered Tin Disulfide nanoparticles prepared by a Low-Cost Process

[P1-032] E. Rogacheva: Self-organization processes in ternary semiconducting solid solutions

[P1-120] J. Y. Kim: Hydrothermal synthesis and characterization of  $\text{Cu}_2\text{SnS}_3$  nanoparticles for solar cell applications

[P1-123] I. Kotuta: One-pot hydrothermal synthesis, characterization, and electrochemical properties of rGO/CoFe $_2$ O $_4$  nanocomposite

[P1-128] S.-S. Hou: Synthesis of Nickel Nanowires using Poly(vinyl pyrrolidone-co-acrylic acid) Copolymers as Protecting Agents

[P2-033] M. Guc: Photoluminescence characterization of  $\text{Cu}_2\text{ZnSiSe}_4$  single crystals

[P2-034] J.-H. Tsai: High-Performance AlGaN/AlN/GaN High Electron Mobility Transistor with Broad Gate-to-Source Operation Voltages

[P2-035] K. Khalilova: Optical properties of as-prepared and annealed CdS:O thin films

[P2-036] N. Gasimov: Optical constants of rare-earth-doped  $\text{Y}_2\text{O}_3$  for up-conversion in thin film solar cells

[P2-037] S. N. Aliyeva: EPR spectra and AFM-analysis of thin film surfaces of (Zn, Ni) ferrites

[P2-038] K. Kamimura: XAFS analysis of crystal  $\text{GeCu}_2\text{Te}_3$  phase change material

[P2-039] S. Shirakata: Deep absorption band in  $\text{Cu}(\text{In,Ga})\text{Se}_2$  thin films and solar cells observed by transparent piezoelectric photo-thermal spectroscopy

[P2-040] S. Hosokawa: An x-ray fluorescence holographic study on a  $\text{Bi}_2\text{Te}_3$ :Mn topological insulator

[P2-041] S. Sano: Optical Characterization of ZnO Transparent Conducting Films Prepared at Low Temperatures

[P2-042] W. Mekprasart: Characterization and Study Effect of Calcination Temperature on Structural Properties of Spinel Zinc Aluminate via Co-precipitation Process

[P2-043] N. Mehdiyev: Polarized Detectors of irradiation on the base of high-anisotropy compounds II-III $_2$ V $_4$

[P2-044] O. Alekperov: Temperature Hierarchy of Ionic to Superionic Conductivity Transformation and Structural Phase Transitions in  $\text{Ag}_2\text{S}$  and  $\text{Ag}_2\text{Se}$

[P2-125] M. K. Jeon: Development of a gram-scale thermo-gravimetric analysis system for chlorination reaction of zirconium alloy materials/zirconium alloy materials

[P3-045] O. Oltulu: Band Structure and Optical Properties of the A4B6 Layered Ferroelectrics: ab initio calculations

[P3-046] N. Ashida: Numerical analysis of  $\text{Cu}(\text{In,Ga})\text{Se}_2$  solar cells with high defect density layer at back side of absorber

[P3-047] N. Mamedov: Ab-initio Calculations of Phonon Dispersion and Lattice Dynamics in  $\text{TlGaTe}_2$

[P3-048] H. Tachikawa: Computer-Aided Molecular Design of Functional Graphene Nano-Flakes: Density Functional Theory (DFT) Study

[P3-049] T. Iyama: Density Functional Theory (DFT) Study on Interaction of Radicals and Atoms with Graphene Surface

[P3-050] O. Alekperov: Band Structure and Vacancy Formation in  $\beta\text{-Ag}_2\text{S}$  and  $\beta\text{-Ag}_2\text{Se}$ : Ab-Initio Study

[P3-051] H. Orudzhev: Ab-initio study of ferromagnetism in Mn-doped  $\text{ZnSnAs}_2$

[P3-052] H.-L. Hwang: Development of Intelligent Design Tool for Non-stoichiometric Cu I-III-V $_2$  Photovoltaic Materials and Devices

[P3-053] M. N. Huda: Determination of single-phase stability of CZTS with defects

[P4-054] R. Ishikawa, Y. Kurokawa, S. Miyajima, M. Konagai: Graphene Transparent Electrode for Thin-Film Solar Cells

[P4-055] K. Tanaka:  $\text{Cu}_2\text{ZnSnS}_4$  Thin Film Solar Cell Prepared by Spray Pyrolysis

[P4-056] E. Konakawa: Improvement of crystallinity of NiO thin films prepared by sol-gel spin coating

[P4-057] S. Miura: Properties of Zn defects in  $\text{Cu}_2\text{ZnSnS}_4$  thin film

[P4-058] S. Ozaki: Optical Properties and Electronic Band Structure of  $\text{Cu}_2\text{ZnSnS}_4$

[P4-059] Y. Miyata: Effect of H $_2$ S annealing for Cu-Sn-S thin films prepared from vacuum-evaporated Cu-Sn precursor

[P4-060] N. A. Abdullayev: Variable range hopping conductivity at low temperatures in CuGaS<sub>2</sub> single crystals.

[P4-061] J.-Y. Chang: Preparation of Eco-Friendly CuInS<sub>2</sub> Quantum Dot-Sensitized Solar Cells

[P4-062] H. Miyazawa: Effect of UV/O<sub>3</sub> irradiation for C<sub>2</sub>ZnSnS<sub>4</sub> thin film deposited on molybdenum by sol-gel sulfurization method

[P4-063] T. Toyama: Impact on Water Rinse Treatment for Aged Cu<sub>2</sub>ZnSnS<sub>4</sub> Studied by X-Ray Absorption Near Edge Structure Analysis

[P4-064] M. Nakashima: Cu<sub>2</sub>SnS<sub>3</sub> Thin Film Solar Cells Prepared by Thermal Crystallization of Evaporated Cu/Sn Precursors in Sulfur and Tin Atmosphere

[P4-065] M. Nakashima: Fabrication of Cu<sub>2</sub>ZnSnSe<sub>4</sub> Thin Films by Selenization of Precursor Using Cu<sub>2</sub>ZnSnSe<sub>4</sub> Compound for Photovoltaic Applications

[P4-066] K. Toyonaga: Preparation and characterization of Cu<sub>2</sub>SixSn<sub>1-x</sub>S<sub>3</sub>

[P4-067] R. R. K. Tulasi: Studies on In<sub>2</sub>S<sub>3</sub>/SnS Thin Film Heterojunction Solar Cell

[P4-068] H. Miyazaki: Surface etching of CZTS absorber layer by Br-related solution

[P4-069] H. Miyazaki: The effect of surface treatment of CZTS absorber layer by ammonia solution

[P4-070] H. Miyazaki: The effects of preferential etching treatment of CZTS absorber layer by deionized water

[P4-071] M. Nakajima: Structure and optical properties of CdS:O thin films by cathode sputtering

[P4-072] R. Yoshida: Excitonic emission on CuInS<sub>2</sub> epitaxial films by pulse laser deposition

[P4-073] K. Oishi: Characterization of CuInS<sub>2</sub>-Cu<sub>2</sub>ZnSnS<sub>4</sub> crystals grown from the melt

[P4-074] H. Shimotsuma: The effect of dextrin addition when Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film prepared by photochemical deposition

[P4-075] Y. Okuno: Electrical performance of InGaP solar cell irradiated with low energy electron beams

[P4-076] S. Sato: Growth of Cu<sub>2</sub>SnS<sub>3</sub> Thin Films by Sulfurization for Earth-Abundant Solar Cells

[P4-077] Y. Watanabe: Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film deposited by the PLD method

[P4-130] H. Hagiya: Characterization of defect phase in Cu(In,Ga)Se<sub>2</sub> prepared by three-stage process

[P4-078] A. K. Matiyev: Phase equilibria in the TiGaSe<sub>2</sub> - AgGaSe<sub>2</sub>

[P4-080] R. R. K. Tulasi: Effect of Sulfurization Time on the Properties of Sulfurized SnS Films

[P4-081] S. Yamada: The synthesis of CIGS crystal using the crank ball mill

[P4-082] J. Kuwana: Cu<sub>2</sub>ZnSn(S,Se)<sub>4</sub> Thin-Film Solar Cells Prepared by Ultrasonic Spray

[P4-083] H. Ebe: Fabrication of Hybrid Perovskite Solar Cells Using Gas-Phase Reaction

[P4-131] H. Matsumori: Epitaxial Growth of CIGS Thin Films on Mo-Coated Sapphire Substrates

[P4-084] A. Mendez-Lopez: Hot-injection synthesis and characterization of Cu<sub>2</sub>ZnSnS<sub>4</sub> nanocrystal ink

[P4-126] H. S. Yang: Fabrication and characterization of Cu<sub>2</sub>ZnSn(SxSe1-x)<sub>4</sub> thin film solar cells : Effects of composition ratio between sulfur and selenium

[P4-127] M. G. Gang: Effect of Cu/Zn+Sn ratio on the properties of Cu<sub>2</sub>ZnSnS<sub>4</sub> thin film and their application to solar cell

[P5-129] M. Imaizumi: Comparison of Radiation Response of Component Subcells in IMM Triple-Junction Solar Cells Irradiated with High-Energy Electrons and Protons

[P6-085] K. Komatsu: Blue phosphor synthesized with Eu-containing strontium aluminate by reaction on single crystalline magnesia

[P6-086] Y.-F. Wu : Investigation on Performances of Multi-quantum Barriers in InGaN/GaN Multi-quantum Well Heterostructures

[P6-087] H. Uchiki: Excited State Absorption in Ce-doped Ca<sub>3</sub>Sc<sub>2</sub>Si<sub>3</sub>O<sub>12</sub> Opaque Polycrystalline Disc Observed by Reflective Pump-Probe Spectroscopy

[P6-088] T. Tanabe: Effects of co-doping rare earth elements on photoluminescence and afterglow of SrGa<sub>2</sub>S<sub>4</sub>:Eu<sup>2+</sup> phosphor

[P6-089] Y.-T. Nien: Structure and Photoluminescence of Ca<sub>3</sub>(Sc,Zn)<sub>2</sub>Si<sub>3</sub>O<sub>12</sub>:Ce Green Phosphor Prepared by the Carbothermal Reduction Method

[P6-090] H. Kominami: Synthesis of SrGa<sub>2</sub>S<sub>4</sub>:Eu Green Emitting Phosphor using Liquid Phase Process

[P6-091] H. Kominami: Preparation and Photoluminescent Properties of Mn-doped Deep Red Emitting Phosphor under Blue to Near Ultra Violet Excitations

[P6-092] I. Khmyrova: Numerical Simulation of Light Extraction in LEDs with the Patterned Contact

[P6-118] N. Ohtani: Triple-layer structure inorganic-organic hybrid light-emitting diodes containing CdSe-ZnS core-shell quantum dot emitters

[P6-124] T. Matsuda: Electroluminescence from MOS Devices with (Tb + Ba) Doped Oxide under DC and Pulse Voltage Drive

[P7-093] E. M. Kerimova: Charge transport and thermo-emf in TiGdS<sub>2</sub>

[P7-094] F. Mikailzade: Magnetodielectric effects in Co implanted TiInS<sub>2</sub> and TiGaSe<sub>2</sub> crystals

[P7-095] M. Mizumaki: Electronic Structure of BaFeO<sub>3</sub> studied by X-ray spectroscopy

[P7-096] A. Mollaev: Transport and Structural Properties of Zn<sub>1-x</sub>Mn<sub>x</sub>GeAs<sub>2</sub> Under Pressure

[P7-097] S. Nakamura: Preparation of Cu<sub>2</sub>SnS<sub>3</sub> sintered compacts for thermoelectric devices

[P7-098] R. Arslanov: Features of Clusters Regime in Mn-doped ZnGeAs<sub>2</sub> Under High Pressure

[P7-099] T. Maeda: Synthesis of (Tr,M)YSr<sub>2</sub>Cu<sub>2</sub>O<sub>z</sub> (Tr: Co, Ni; M: Mo, W)

[P7-100] R. Harasawa: Observation of picosecond electron spin relaxation in InGaAsP

[P7-101] H. Inoue: Characterization of Ferromagnetic ZnSnAs<sub>2</sub>:Mn Thin Films using Laser-assisted Three-dimensional Atom Probe Technique

[P7-102] H. Yoshizawa: Growth of Ferromagnetic InMnAs Thin Films by Low-temperature Molecular Beam Epitaxy on InP Substrates

[P7-103] S. Jabarov: Crystal structure of multiferroics Ba<sub>4</sub>Sm<sub>2</sub>Fe<sub>2</sub>Nb<sub>8</sub>O<sub>30</sub> and Ba<sub>4</sub>Gd<sub>2</sub>Fe<sub>2</sub>Nb<sub>8</sub>O<sub>30</sub> at high pressures

[P7-104] M. Ninomiya: Preparation and Characterization of CoFe<sub>2</sub>O<sub>4</sub> Thin Films on MgO (100) Substrate by Metal organic Decomposition Method

[P7-105] M. Eguchi: Structural and Thermoelectric Properties of Ternary Full-Heusler Alloys

[P7-121] H. Toyota: Thermally stable thermoelectric properties of Si:B/SiGe stacked layers prepared on Si substrates by layer-by-layer annealing methods

[P7-122] K. Noipa: Structural, optical and Magnetic Properties of Co-doped ZnO Nanorods Prepared by a thermal decomposition route

[P8-106] K. Yoshii: Elemental substitution effects in multiferroic RFe<sub>2</sub>O<sub>4</sub> (R: rare earths)

[P8-107] Y.G. Shim: Temperature behavior of dielectric function spectra and optical transitions in TiGaS<sub>2</sub>

[P8-108] M. Imanishi: Photo-induced change of surface relief on layered ternary thallium compounds

[P8-109] K. Kuriyama: Optical band gap of Li<sub>8</sub>SiN<sub>4</sub> with disordered structure as a cathode material of lithium secondary batteries

[P8-110] N. A. Abdullayev: Phonon-phonon interaction in CdGa<sub>2</sub>Se<sub>4</sub>

[P8-111] J. A. Sans: Structural and vibrational properties of CdAl<sub>2</sub>S<sub>4</sub> under high pressure: Experimental and theoretical approach

[P8-112] I. Kasumoglu: Pulsing current in CuGaS<sub>2</sub> due to the applied electric field

[P8-113] M. Hagiwara: Excitonic emission of TiGaSe<sub>2</sub>

[P8-114] K. Ichiki: Eu 3d and 5p Electronic Structure of EuNi<sub>2</sub>(Si<sub>1-x</sub>Gex)<sub>2</sub> Studied by Hard X-Ray Photoemission Spectroscopy

[P8-115] S. Yudate: Preparation of Europium-doped GaN and AlGaN films grown by radical-nitrogen-assisted compound-source MBE

[P8-116] Y.-P. Chen: Micronization of Active Pharmaceutical Ingredient Using the Supercritical Carbon Dioxide Based Processes

[P8-117] W.-Y. Sun: Nanostructured metal-organic frameworks with mixed organic ligands

[P8-119] T.-S. Yang: Mechanical and antiwear properties of CrAlTiSiN composite coatings synthesized by a cathodic arc deposition process