

# ***Short Presentation***

**15<sup>th</sup> Nov. (Mon) 17:30~19:00**  
**Time: 2min**

**P\*\*:** Presentation Number

**†:** Entry to *Young Researcher Poster Award*

- P01<sup>†</sup>**    **Yoichi Takada**                      **The University of Tokyo**  
Hydrogen Desorption Effect on Electrical Properties of Ge Epitaxial Layers on Si
- P02<sup>†</sup>**    **Akihrio Yanai**                      **The University of Tokyo**  
Porous Si Light Scattering Effect for highly efficient thin film Si Solar Cells
- P03**      **Minoru Nakamura**                      **Hitachi, Ltd., Hitachi Research Laboratory**  
Influence of the diffusion temperature of copper on the formation of copper centers in silicon crystals
- P04<sup>†</sup>**    **Shotaro Takeuchi**                      **Covalent Silicon Corporation**  
GeSn stressors for Ge CMOS devices
- P05**      **Toru Funaki**                              **Okayama University**  
Dislocation motion in B-doped SiGe epifilm on Si substrate
- P06<sup>†</sup>**    **Kenji Hara**                              **The University of Tokyo**  
Local Photothermal Analysis by Atomic Force Microscopy around Grain Boundary in Multicrystalline Si Solar Cell
- P07**      **Takatoshi Shimizu**                      **Okayama Prefectural University**  
Diffusion mechanism of 3d transition metals at Si(100) surface studied by first principles calculation
- P08**      **Koji Araki**                              **Covalent Silicon Corporation**  
Effect of Oxygen Precipitation in Nitrogen-Doped Annealed Silicon Wafers on Thermal Strain Induced by Rapid Thermal Processing
- P09<sup>†</sup>**    **Satoru Komatsu**                      **Niigata University**  
Observation of vacancy in B-doped crystalline silicon using low-temperature ultrasonic measurements
- P10**      **Takamasa Nanba**                      **Okayama Prefectural university**  
First-principles analysis on diffusion mechanism of contamination atoms in SiO<sub>2</sub> crystal
- P11**      **Yoshikazu TERAJ**                      **Osaka university**

- Investigation of bandgap structure in  $\beta$ -FeSi<sub>2</sub> epitaxial films on Si substrate
- P12<sup>†</sup>** **Satoko NAKAGAWA** **Covalent Silicon Corp.**  
Quantitative Analysis of Low-Concentration Carbon in Silicon Wafers by Luminescence Activation Using Electron Irradiation
- P13** **Toshiro Minami** **Covalent Silicon Corporation**  
Generation Mechanism of Pinhole Defects in Czochralski Silicon Single Crystal
- P14<sup>†</sup>** **Shotaro Baba** **Niigata University**  
Electric quadrupole effects of vacancy orbital in boron-doped silicon
- P15<sup>†</sup>** **Takafumi Ogawa** **Niigata university**  
Ab-initio evaluation of quadrupole moment associated with silicon mono-vacancy
- P16<sup>†</sup>** **Youichi Yamakawa** **Niigata University**  
Effects of dynamical Jahn-Teller phonons on the charge states in a silicon vacancy
- P17** **Masahiro Ichino** **Shizuoka Institute of Science and Technology**  
Iron impurities in n-type silicon wafer under light irradiation
- P18<sup>†</sup>** **Takemi Yamada** **Niigata University**  
Green's function approach for the electronic state in a silicon vacancy
- P19** **Tatsuhiko Aoki** **Covalent Silicon Corporation**  
Application of the simulation of slip generation to the anneal process of silicon wafer
- P20** **Takuto Kojima** **Toyota Technological Institute**  
Effects of Ni contamination on Electrical Properties of (110)/(100) Si Bonded Interface
- P21** **Naoya Kawamoto** **Yamaguchi University**  
Growth of polycrystalline Si film at low temperature on polycarbonate substrate
- P22** **Yoshinori Shigematsu** **Okayama Prefectural University**  
Diffusion mechanism of contaminated metals in strained Si crystals analyzed by first principles calculation
- P23<sup>†</sup>** **Tomihisa Tachibana** **Meiji University**  
Influence of high temperature annealing on electrical activity at small angle grain boundaries in multi-crystalline silicon for solar cells.
- P24<sup>†</sup>** **Futoshi Okayama** **Institute of Space and Astronautical Science / JAXA**  
Deep-Level Photoluminescence Analysis at Room Temperature in Small-Angle Grain Boundaries in Multicrystalline Silicon
- P25** **Koun SHIRAI** **Osaka University**

Dynamics of Reorientation of Single Lattice Vacancy in Silicon

- P26**<sup>†</sup> **Takaaki Iwai** **Institute of Space and Astronautical Science / JAXA**  
Photoluminescence analysis of high concentrations of donor and acceptor impurities in Si
- P27**<sup>†</sup> **Kunifumi Suzuki** **Tokyo Institute of Technology**  
Direct observation of stress-induced diffusion of iron impurities in silicon
- P28**<sup>†</sup> **Kazuki Okabe** **Niigata University**  
Practical evaluation of vacancy concentration in silicon crystals and wafers by ultrasonic measurements with organic P(VDF/TrFE) transducers
- P29** **Dong WANG** **Kyushu University**  
Microphotoluminescence evaluation of local strain for freestanding Si membranes with SiN deposition
- P30**<sup>†</sup> **Ryo Takiguchi** **University of Tsukuba**  
Doping and radial distribution of boron atoms in silicon nanowires
- P31** **Taishi Toshinori** **Shinshu University**  
Evaluation of oxygen-related defects in germanium crystals grown from the melt covered by B<sub>2</sub>O<sub>3</sub>
- P32**<sup>†</sup> **Munehisa Takei** **Meiji University**  
Improvement of spatial resolution in Raman spectroscopy by controlling measurement area
- P33** **Haigui YANG** **Kyushu University**  
Defect evaluation and control of SiGe-On-Insulator substrate fabricated by Ge condensation technique
- P34** **Frederic Mercier** **National Institute of Advanced Industrial Science and Technology**  
Numerical investigation of the growth rate enhancement in solution growth of SiC from silicon melts.
- P35** **Kazuaki Takata** **Okayama University**  
Interaction of Si vacancies at finite temperature: A tight-binding study
- P36**<sup>†</sup> **Hiroaki Kariyazaki** **Okayama Prefectural University**  
Molecular simulation on interfacial structure of direct silicon bonded (110)/(100) substrates
- P37** **Akitaka Yoshigoe** **Japan Atomic Energy Agency**  
Relationship between adsorption states and surface morphology in oxidation of Si(111)-7x7 surface at 300 K studied using real-time synchrotron radiation photoelectron spectroscopy, LEED and STM