APAC SILICIDE 2016 Poster Session

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Poster Session I

[17-P1]
Low Cost Fabrication of Mg_2Si Thermoelectric Device with Reused-silicon
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[17-P2]
The Formation and Properties of $BaSi_2$ Thin Films Obtained by Solid Phase Epitaxy on Si (111)
D.V. Fomin[1], V.L. Dubov[1], K.N. Galkin[2], N.G. Galkin[2], R.I. Batalov[3] and V.A. Shustov[3]
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[17-P3]
An Influence of Stresses in $CaSi_2$ hR6 Lattice with R-3m Space Group on the Band Structure and Properties of *h*-$CaSi_2$/Si and Si/*h*-$CaSi_2$/Si Heterostructures
N.G. Galkin[1], S.A. Dotsenko[1], K. N. Galkin[1], L. Dózsa[2], I. Cora [2], B. Pécz[2]
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[17-P4]
Thermoelectric Properties of Quaternary Si Clathrate $K_8Ga_xZn_ySi_{46-x-y}$
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[17-P5]
Energetic Consideration of Compounds Formed at Mg_2Si/Ni Electrode Boundary Layer
Yoji Imai[1], Hiroharu Sugawara[2], Yoshihisa Mori[3], Shigeyuki Nakamura[4], Atsushi Yamamoto[1], and Ken-ichi Takarabe[3]
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[17-P6]
Formation and Analysis of GeSn on Insulator with Non-Thermal Equilibrium Sn Concentration Obtained by Pulsed Laser-Annealing
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[17-P7]

Enhancement of Hole Concentration in B-doped $BaSi_2$ Epitaxial Thin Films by Pulse Laser Annealing

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[17-P8]
p-$BaSi_2$/n-Si Solar Cells with Conversion Efficiency Approaching 10% by Reduction of Contact Resistance and Surface Passivation using a-Si Capping Layers
Suguru Yachi, Ryota Takabe, Kaoru Toko and Takashi Suemasu
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[17-P9]
Synthesis of Si-based Nanostructures by Extraction of Ba Atoms from $BaSi_2$ in Acid Solutions
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[17-P10]
Multi-layer Graphene on Insulator Formed by Co-induced Layer Exchange
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[17-P11]
Effect of Interlayer on Ag-induced Layer Exchange Crystallization of Amorphous Ge Thin Film on Insulator
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[17-P12]
Observation of pn-junction Depth in Mg_2Si Diodes Fabricated by Short Period Thermal Annealing
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[17-P13]
On the Rod-like Precipitations Formed in the Vapor Deposited Fe-Si Film
Shin-ichiro Kondo, Takao Morimura and Hiromichi Nakashima
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[17-P14]
The Crystal Structure and Electrical Resistivity of a Novel Na-Pt-Ge Intermetallic Compound, Na_2Pt_3Ge
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[17-P15]
Preferred Orientation of $BaSi_2$ Thin Films Fabricated by Thermal Evaporation
Kosuke O. Hara[1], Cham Thi Trinh[2], Yoshihiko Nakgawa[2], Yasuyoshi Kurokawa[2], Keisuke Arimoto[1], Junji Yamanaka[1], Kiyokazu Nakagawa[1], and Noritaka Usami[2]
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[17-P16]
Synthesis of Flower-like Si Nanostructures on Si Substrates
H. Suzuki[1], P. Yuan[2], X. Meng[2], Y. Saito[1], K. Sasaki[1], R. Tamaki[3], H. Tatsuoka[1], N. Ahsan[3] and Y. Okada[3]
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[17-P17]
Optical and Photocatalytic Properties of Nanocomposites Composed of Ca_xSi_2 Nano-flakes and Nickel Silicide Particles
Hiroshi Itahara[1], Xiaoyong Wu[2], Yoshiki Yamazaki[2], Haruo Imagawa[1], Shu Yin[2], Kazunobu Kojima[2], Shigefusa F. Chichibu[2] and Tsugio Sato[2]
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[17-P18]
Mg_2Si/Si Composite Particles Synthesized by a Metathesis Reaction and Their Anode Performance as Li-ion Batteries
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[17-P19]
Syntheses of Si-based Nanostructures Using Silicides as Starting Materials in Acid Solutions
Yuki Kumazawa[1], Kenta Sasaki[1], Xiang Meng[2], Yuan Peiling[2] and Hirokazu Tatsuoka[2]
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[17-P20]
Investigation on Minority-carrier Lifetime and Solar Cell Properties of $BaSi_2$ Formed on Multicrystalline Si Substrates
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[17-P21]
Ion Channeling Measurements of β-$FeSi_2$ Films Epitaxially Grown on Si(111) and Their Analysis by Multiple Scattering Theory
Masaya Fuchi[1], Mikihiro Arima[1], Kazumasa Narumi[2], Yoshikazu Terai[1] and Yoshihito Maeda[1,2]
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[17-P22]
Realization of Crystalline $BaSi_2$ Thin Films by Vacuum Evaporation on (111)-oriented Si Layers Fabricated by Aluminum Induced Crystallization
Jefferson A. Wibowo[1], Isao Takahashi[1], Kosuke O. Hara[2] and Noritaka Usami[1]
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[17-P23]
Structural Characterizations of Si-based Nanostructures by Extraction of Metallic Atoms from $CaSi_2$, $SrSi_2$ and $BaSi_2$ by Inositol Hexakisphosphate
Kenta Sasaki[1], Koki Sano[1], Xiang Meng[2], Peiling Yuen[2], Yuki Kumazama[1], Hirokazu Tatsuoka[1]
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Poster Session II

[17-P24]
Preparation of Wire Arrays on Si Substrates by Repeated Chemical Treatment in $AgNO_3$/HF Aqueous Aolution
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[17-P25]
Synthesis of Mn-based Nanostructures on Mn Substrates
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[17-P26]
Solid-phase Synthesis of Mg_2Si Thin Film on Sapphire Substrate
Motomu Saijo, Kazuhiro Kunitake, Ryota Sasajima, Yuta Takagi, Naoyuki Sato, and Takashi Ikehata
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[17-P27]
Synthesis of Si-based nanowires on insulating substrates
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[17-P28]
Fabrication of Mg_2Si pn-junction Photodiode with Shallow Mesa-structure and Ring Electrode
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[17-P29]
Low Temperature (< 150 °C) Formation of Amorphous Ge on Insulating Substrate by Stress Stimulated Crystallization
Kinta Kusano[1], Kazuki Kudo[1], Taisei Sakaguchi[1], Takatsugu Sakai[1], Shinichi Motoyama[2], Yutaka Kusuda[2], Masahiro Furuta[2], Nobuyuki Naka[3], Tomoko Numata[3], Kenichiro Takakura[1], and Isao Tsunoda[1]
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[17-P30]
Dependence of Direct Transition Energies on Growth Temperature in β-$FeSi_2$ Epitaxial Films
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[17-P31]
Growth of p-type β-$FeSi_2$ Polycrystalline Films by RF Magnetron Sputtering
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[17-P32]
Lattice Vibrational Properties of $BaSi_2$ Epitaxial Film in Polarized Raman Spectra
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[17-P33]
Size and Shape Control of Epitaxial β-$FeSi_2$ Nanodots in Si-based Nanoarchitecture Toward Advanced Thermoelectric Materials
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[17-P34]
The Growth of High Quality Epitaxial β-$FeSi_2$ Thin Films by Solid Phase Epitaxy
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[17-P35]
Solid Phase Epitaxy for Formation of Silicon-GaSb Based Heterostructures
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[17-P36]
Fe/boron-doped Ultrananocrystalline Diamond/Fe Trilayered Spin Valve Junctions
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[17-P37]
Structural Analysis of $ErSi_2$ Nanowire Grown on Si(100)
Kazuki Takahashi, Hiroyuki Kagitani, Shun Osaka, Hiroshi Tabata, Osamu Kubo, Mitsuhiro Katayama
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[17-P38]
Oxidation Resistance of Impurity Doped Mg_2Si Grown from the Melt
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[17-P39]
Evaluation of a Bandgap of Cubic Mg_2Si by First Principle Calculation with PMT-QSGW Method
Ayumi Inaba and Hiroharu Sugawara
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[17-P40]
Frequency-Dependent Capacitance-Voltage and Conductance-Voltage Characteristics of n-Type Nanocrystalline $FeSi_2$/Intrinsic Si/p-Type Si Heterojunctions
Peeradon Onsee, Asanlaya Duangrawa, Sakmongkon Teakchaicum, Phongsaphak Sittimart, Adison Nopparuchikun and Nathaporn Promros
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[17-P41]
Surface Structure of Epitaxial $BaSi_2$(100) Film Formed on Si (111)
Hiroyuki Kagitani, Osamu Kubo, Shouta Okasaka, Kazuki Takahashi, Hiroshi Tabata, and Mitsuhiro Katayama
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[17-P42]
Effects of Source Materials on Fabrication of β-$FeSi_2$ Thin Films by RDE Method
Haruya Kobayashi, Keisuke Sato and Yoshiaki Hara
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[17-P43]
Effects of Nitrogen Doping on Optical and Electrical Properties of $FeSi_2$ Films Prepared by Sputtering
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[17-P44]
EXAFS Study on Nitrogen-doped Nanocrystalline $FeSi_2$ Films Prepared by Sputtering
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[17-P45]
Solvent-Controlled Anatase Titania Thin Film via Hydrothermal Method and Its Orientation Mechanism
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[17-P46]
Ab-initio Calculations of Nanocrystallites Embedding in Silicon: Optical Properties
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[17-P47]
Forming of Magnesium and Calcium Silicide Nanoparticles on the Surface of Hydrogenated Silicon Thin Films for the Whole in Situ Deposition Process of Diodes
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