IMFEDK 2020 Satellite event
The 2020 International Meeting for Future of Electron Devices, Kansai
November 27, 2020 Online

IMFEDK 2020

International Meeting for Future of Electron Devices, Kansai

November 27, 2020

Online (Kyoto Institute of Technology)

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IMFEDK 2020 Satellite event Poster Session

Short Presentation: 9:05 – 10:05 Nov. 27 2020

Poster Presentation: 12:30 – 14:00 Nov. 27 2020

P-1 RF Extraction Method for Off-State Equivalent Circuit in PD-SOI MOSFETs

Jinwook Kuk, Seonghearn Lee
Department of Electronic Engineering, Hankuk University of Foreign Studies, Korea

P-2 Phase Change Random Access Memory Using Cu2GeTe3

Shihori Akane[1], Isao Horiuchi[2], Mutsumi Kimura[1]
1.Ryukoku University , 2.KOA Corporation

P-3 A mist CVD-derived ferroelectric $Hf_{1-x}Zr_xO_2$ films with possible operation for non-volatile analog memory

Yuki Fujiwara, Junya Onishi, Hiroyuki Nishinaka, Masahiro Yoshimoto, and Minoru Noda
Kyoto Inst. Tech.

P-4 Simulation of graphene photodetectors incorporating the photo-gating effect

Shingo Aida, Matsuto Ogawa, and Satofumi Souma
Department of Electrical and Electronic Engineering, Kobe University

P-5 Ferroelectric gate thin film transistor using oxide semiconductor Ga-Sn-O

Tomoki Fukui, Kouki Nakagawa, Mutsumi Kimura
Ryukoku university

P-6 Improved Interfaces of high-K ZrO_2 and AlGaN via ex-situ MOVPE regrowth

Itsuki Nagase[1], Joel T. Asubar[1], Rui Shan Low[1], Shun Urano[1], Shunsuke Kamiya[1], Ali Baratov[1], Hirokuni Tokuda[1], Akio Yamamoto[1], and Masaaki Kuzuhara[2]
1.University of Fukui, 2.Kwansei Gakuin University

P-7 GPU-accelerated Monte Carlo simulation of quasi-ballistic phonon transport in Si

Yuma FUJITA, Yuhei SUZUKI, and Yoshinari KAMAKURA
Faculty of Information Science and Technology, Osaka Institute of Technology

P-8 Ferroelectric thin film synapses for neuromorphic devices

Yuma ISHISAKI[1], Hiroki UMEMURA[1], Daiki MATSUKAWA[1], Eisuke TOKUMITSU[2], Kenichi HAGA[3], Toshihiro DOI[3], Mutsumi KIMURA[1]
1. Ryukoku University, 2. Japan Advanced Institute of Science and Technology,
3. Mitsubishi Materials Corporation,

P-9 Epitaxial Growth of ZnO Thin Films on Flexible Substrates and Characteristics of Optical Properties by Bending

Yuta Arata, Hiroyuki Nishinaka, Masahiro Yoshimoto
Kyoto Institute of Technology

P-10 Simulation of spin-dependent conduction characteristics in graphene nanoribbon quantum dot FET for realization of spin qubit

Naruki Sasaki, Matsuto Ogawa, and Satofumi Souma
Department of Electrical and Electronic Engineering, Kobe University

P-11 Dependence of thermoelectric performance on annealing temperature for GTO thin film device

Yamamoto Yuhei, Tatsuya Aramaki, Ryo Ito, Mutsumi Kimura
Ryukoku university

P-12 Effect of Post-Metallization Annealing on Properties of ZrO2/regrown-AlGaN/GaN structures

Shun Urano[1], Joel T. Asubar[1], Itsuki Nagase[1], Rui Shan Low[1], Shunsuke Kamiya[1], Ali Baratov[1], Hirokuni Tokuda[1], Akio Yamamoto[1], and Masaaki Kuzuhara[2]
1. University of Fukui, 2. Kwansei Gakuin University

P-13 Characterization of mist-CVD deposited Al_2O_3 films on AlGaN/GaN heterostructures

Tomohiro Motoyama[1], Kenta Naito[1], Yusui Nakamura[1], Zenji Yatabe[1], Rui Shan Low[2], Itsuki Nagase[2], Ali Baratov[2], Hirokuni Tokuda[2], Masaaki Kuzuhara[3], Joel T. Asubar[2]
1. Kumamoto University, 2. University of Fukui, 3. Kwansei Gakuin University

P-14 Investigation of oxide semiconductor thin film synapse using STDP learning method

Tetsuya KATAGIRI, Daiki YAMAKAWA, Kenta YATIDA, Kazuki MORIGAKI, Mutsumi KIMURA
Ryukoku University

P-15 Effect of recoil-implanted N atoms on defect formation in Mg-implanted GaN

K. C. Herbert[1], K. Shibata[1], J. T. Asubar[2], M. Kuzuhara[1]
1. Kwansei Gakuin University, 2. University of Fukui

P-16 Growth of Rhombohedral Indium Oxide Thin Films on $LiTaO_3$ Substrate for Fabrication of Lattice Matched Indium Gallium Oxide Power Devices

Kazuki Shimazoe, Hiroyuki Nishinaka, Yuta Arata, Yusuke Ito, and Masahiro Yoshimoto
Kyoto Institute of Technology, Department of Electronics

P-17 Stacked cross-point memory of synaptic elements using IGZO thin film

Etsuko Iwagi[1], Takumi Tsuno[2], Mutsumi Kimura[1,2]
1. Ryukoku university, 2. Nara Institute of Science and Technology

P-18 Consideration of scattering process in nanoscale device simulation based on top of barrier model

Ren Tanaka, Matsuto Ogawa, and Satofumi Souma
Department of Electrical and Electronic Engineering, Kobe University

P-19 Brain type system using IGZO thin film synapses

Yuki Onishi[1], Yuki Shibayama[1], Daiki Yamakawa[1], Hiroya Ikeda[2], Yasuhiko Nakashima[2], Mutsumi Kimura[1,2]
1. Ryukoku University, 2. Nara Institute of Science and Technology

P-20 Deposition and Characteristics of lead-free $Cs_3Cu_2(Cl_{1-x}I_x)_5(0 \leqq x \leqq 1)$ thin films

Keisuke Watanabe, Hiroyuki Nishinaka, Masahiro Yoshimoto
Kyoto Institute of Technology

P-21 Automation of characteristic measurement of amorphous oxide semiconductor memristors and their effects

Ryo SUMIDA, Ayata KURASAKI, Daisuke MAKIOKA, Mutsumi KIMURA
Ryukoku university

P-22 Biological environment imitation experiment of artificial retina using thin film device

Naoya Naito[1], Kouhei Toyoda[1], Yoshio Okano[2], Mutsumi Kimura[1]
1. Ryukoku university, 2. WetLab corporation