

Paper List

January –December, 2022

- E2022-1(F) Two High-Precision Proximity Capacitance CMOS Image Sensors with Large Format and High Resolution
Sensors (MDPI), 22, No.7, (2022), pp.2770, 4 April 2022.
Yuki Sugama, Yoshiaki Watanabe, Rihito Kuroda, Masahiro Yamamoto, Tetsuya Goto, Toshiro Yasuda, Hiroshi Hamori, Naoya Kuriyama and Shigetoshi Sugawa
<https://doi.org/10.3390/s22072770>
- E2022-2(C) Estimating transistor characteristics from low temperature polycrystalline silicon surface images using deep learning
The 4th Smart Laser Processing Conference 2022, SLPC3-03, pp.28, 19April 2022.
Keita Katayama, Takayuki Kurashige, Takahiro Nagano, Yoshiaki Kakimoto, Akira Mizutani, Daisuke Nakamura, Tetsuya Goto, Hiroshi Ikenoue
- E2022-3(C) Excimer laser doping of low resistance Ni ohmic contacts to n-type 4H-SiC
The 4th Smart Laser Processing Conference 2022, SLPC7-03, pp.47, 21April 2022.
Yoshiaki Kakimoto, Keita Katayama, Takuma Yasunami, Tetsuya Goto, Daisuke Nakamura, and Hiroshi Ikenoue
- E2022-4(F) [Invited Paper]
HDR CMOS Image Sensors for Automotive Applications
IEEE Transactions on Electron Devices, 69, Issue: 6, (2022), 25 April 2022.
Isao Takayanagi, and Rihito Kuroda
<https://doi.org/10.1109/TED.2022.3164370>
- [E2022-5\(C\)](#) A 4-Tap CMOS Time-of-Flight Image Sensor with In-pixel Analog Memory Array Achieving 10Kfps High-Speed Range Imaging and Depth Precision Enhancement
IEEE Symposium on VLSI Circuits Digest of Technical Ppers, pp.48-49, C05-3, (2022), Hawaii, 15 June, 2022
Chia-Chi Kuo, Rihito Kuroda
- E2022-6(F) A 70-dB SNR High-Speed Global Shutter CMOS Image Sensor for in Situ Fluid Concentration Distribution Measurements
IEEE Transactions on Electron Devices, 69, Issue 6, (2022), pp.2965-2972, June 2022.
Tetsu Oikawa, Rihito Kuroda, Keigo Takahashi, Yoshinobu Shiba, Yasuyuki Fujihara, Hiroya Shike, Maasa Murata, Chia-Chi Kuo, Yhang Ricardo Sipaubá Carvalho da Silva, Tetsuya Goto, Tomoyuki Suwa, Tatsuo Morimoto, Yasuyuki Shirai, Takafumi Inada, Yushi Sakai, Masaaki Nagase, Nobukazu Ikeda, and Shigetoshi Sugawa
<http://doi.org/10.1109/TED.2022.3165520>

- E2022-7(C) Silicon Nitride Film Formations Using Magnetic-Mirror Confined Plasma System Developed for Minimal Fab System
2022 Asia-Pacific Workshop on Fundamentals and Applications of advanced Semiconductor Devices (AWAD)
Tetsuya Goto, Thai Quoc Cuong, Seiji Kobayashi, Yuki Yabuta, Shigetoshi Sugawa and Shiro Hara
- E2022-8(F) Adsorption and surface reaction of isopropyl alcohol on SiO₂ surfaces
Journal of Vacuum Science & Technology A: AVS: Science & Technology of Materials, Interfaces, and Processing, 40, No 5, 053201, (2022), 11 July 2022.
Takezo Mawaki, Akinobu Teramoto, Katsutoshi Ishii, Yoshinobu Shiba, Rihito Kuroda, Tomoyuki Suwa, Shuji Azumo, Akira Shimizu, Kota Umezawa, Yasuyuki Shirai, Shigetoshi Sugawa
<https://doi.org/10.1116/6.0002002>
- E2022-9(W) [Invited]
Microbubble Technology in Semiconductor Manufacturing
The International Symposium on Plasma & Fine Bubbles, pp.30, August 23, (2022), Online.
Masayoshi Takahashi
- E2022-10(W) A High-speed and High Precision Range Imaging Using 4-Tap Time-of-Flight CMOS Image Sensor and In-pixel Analog Memory Array/画素内アナログメモリアレイを有する 4-Tap Time-of-Flight CMOS イメージセンサによる高精度・高速距離イメージング
映像情報メディア学会技術報告・情報センシング研究会(一般社団法人 映像情報メディア学会), (2022), Vol.46, No.29, IST2022-36, pp.9-12, 2022 年 9 月 22 日, ハイブリッド
郭 家祺, 黒田 理人
<https://www.ite.or.jp/ken/paper/202209221AKx/>
- E2022-11(F) Effect of Charge-up of Surfaces of Sintered Y₂O₃ and Yttrium Oxyfluoride on Their Erosion Rates due to Ion Bombardment
Journal of Vacuum Science & Technology A, 40, (2022), 062205-1 -062205-7,
Tetsuya Goto, Yoshinobu Shiba, Akinobu Teramoto, Yukio Kishi, and Shigetoshi Sugawa
<https://doi.org/10.1116/6.0002162>
- [E2022-12\(W\)](#) Advanced imaging technologies toward semiconductor manufacturing and more
The 34th International Microelectronics Conference, (2022), pp.1-4, November 12, Sendai
Rihito Kuroda

[E2022-13\(W\)](#) A Study on High Precision and High-Speed Time-of-Flight CMOS Image Sensor for Range Imaging
The 34th International Microelectronics Conference, (2022), pp.5-8, November 12, Sendai
Chia-Chi Kuo and Rihito Kuroda

[E2022-14\(C\)](#) In Situ Measurement and Analysis of Low Pressure Gas Concentration Distribution Using 70-dB SNR 1,000 Frame-per-second Absorption Imaging System
International Symposium on Semiconductor Manufacturing 2022, (2022), PM-41, December 13, Tokyo
Yushi Sakai, Yoshinobu Shiba, Takafumi Inada, Tetsuya Goto, Tomoyuki Suwa, Akihito Sutoh, Tatsuo Morimoto, Yasuyuki Shirai, Shigetoshi Sugawa, Tetsu Oikawa, Aoi Hamaya, and Rihito Kuroda