### Paper List

**January – December, 2020**

| E2020-1(F) | Study on CF4/O2 plasma resistance of O-ring elastomer materials  
Tetsuya Goto, Shogo Obara, Tomoya Shimizu, Tsuyoshi Inagaki, Yasuyuki Shirai, and Shigetoshi Sugawa  
[https://doi.org/10.1116/1.5124533](https://doi.org/10.1116/1.5124533) |
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| E2020-2(F) | Fabrication of CMOS Invertors in Si Thin-Film-Transistors by Laser Doping Using a Chemical Solution Coating  
Kaname Imokawa, Takayuki Kurashige, Akira Suwa, Daisuke Nakamura, Taizoh Sadoh, Tetsuya Goto, and Hiroshi Ikenoue  
[http://doi.org./10.1109/JEDS.2019.2956991](http://doi.org./10.1109/JEDS.2019.2956991) |
| E2020-3(C) | Surface flattening of poly-Si thin films by laser annealing and electrical properties of LTPS-TFTs  
January 22, 2020, San Francisco, U.S.A  
Fuminobu Hamano, Akira Mizutani, Kaname Imokawa, Daisuke Nakamura, Tetsuya Goto, Hiroshi Ikenoue  
[https://doi.org/10.1117/12.2544910](https://doi.org/10.1117/12.2544910) |
| E2020-4(C) | An over 120dB dynamic range linear response single exposure CMOS image sensor with two-stage lateral overflow integration trench capacitors  
Electronic Imaging 2020, Imaging Sensors and Systems 2020, (2020), 143-1 - 143-5,  
January 28, 2020, San Francisco, U.S.A  
Yasuyuki Fujihara, Maasa Murata, Shota Nakayama, Rihito Kuroda, Shigetoshi Sugawa  
[https://doi.org/10.2352/ISSN.2470-1173.2020.7.ISS-143](https://doi.org/10.2352/ISSN.2470-1173.2020.7.ISS-143) |
| E2020-5(L) | Amorphous titanium-oxide supercapacitors with high capacitance  
Mikio Fukuhara, Tomoyuki Kuroda, Fumihiko Hasegawa, Yasuyuki Shirai, Tomoyuki Suwa, Toshiyuki Hashida and Masahiko Nishijima  
| E2020-6(F) | Over 100 Million Frames per Second 368 Frames Global Shutter Burst CMOS Image Sensor with Pixel-wise Trench Capacitor Memory Array  
Sensors (MDPI), Vol.20, No.4, (2020), pp.16  
Manabu Suzuki, Yuki Sugama, Rihito Kuroda and Shigetoshi Sugawa  
[https://doi.org/10.3390/s20041086](https://doi.org/10.3390/s20041086) |
E2020-7(F) High reliability CoFeB/MgO/CoFeB magnetic tunnel junction fabrication using low-damage ion beam etching
Hyeonwoo Park, Akinobu Teramoto, Jun-ichi Tsuchimoto, Keiichi Hashimoto, Tomoyuki Suwa, Marie Hayashi, Rihito Kuroda, Koji Tsunekawa, and Shigetoshi Sugawa
https://doi.org/10.35848/1347-4065/ab6cb5

E2020-8(F) A high-precision 1 Ω–10 MΩ range resistance measurement platform for statistical evaluation of emerging memory materials
Takeru Maeda, Yuya Omura, Rihito Kuroda, Akinobu Teramoto, and Shigetoshi Sugawa
http://doi.org/10.35848/1347-4065/ab6d86

E2020-9(F) A High Near-Infrared Sensitivity Over 70-dB SNR CMOS Image Sensor with Lateral Overflow Integration Trench Capacitor
IEEE TRANSACTIONS ON ELECTRON DEVICES, Vol.67, No.4, pp. 1653-1659
Maasa Murata, Rihito Kuroda, Yasuyuki Fujihara, Yusuke Otsuka, Hiroshi Shibata, Taku Shibaguchi, Yutaka Kamata, Noriyuki Miura, Naoya Kuriyama, Shigetoshi Sugawa
https://doi.org/10.1109/TED.2020.2975602

E2020-10(F) Resistance Measurement Platform for Statistical Analysis of Emerging Memory Materials
Takeru Maeda, Yuya Omura, Rihito Kuroda, Akinobu Teramoto, Tomoyuki Suwa, and Shigetoshi Sugawa
https://doi.org/10.1109/TSM.2020.2983100

E2020-11(P) Study on Influence of O2 Concentration in Wafer Cleaning Ambient for Smoothness of Silicon (110) Surface Appearing at Sidewall of Three-Dimensional Transistors
Tomoyuki Suwa, Akinobu Teramoto, Yasuyuki Shirai, Takenobu Matsuo, Nobutaka Mizutani and Shigetoshi Sugawa
https://doi.org/10.1149/09703.0023ecst

E2020-12(F) Plasma resistance of sintered and ion-plated yttrium oxyfluorides with various Y, O, and F composition ratios for use in plasma process chamber
Tetsuya Goto, Yoshinobu Shiba, Akinobu Teramoto, Yukio Kishi, and Shigetoshi Sugawa
https://doi.org/10.1116/1.5142515
E2020-13(C)  Effect of Drain-to-Source Voltage on Random Telegraph Noise Based on Statistical Analysis of MOSFETs with Various Gate Shapes
2020 IEEE International Reliability Physics Symposium (IRPS), 9A.2, Virtual Conference
http://doi.org/10.1109/IRPS45951.2020.9128341

E2020-14(W)  CMOS FOR AUTOMOTIVE, MEDICAL, AND INDUSTRIAL APPLICATIONS
Yasuyuki Fujihara

E2020-15(C)  Over 230 fF/μm² capacitance density 9.0V breakdown voltage textured deep trench SiN capacitors toward 3D integration
Koga Saito, Ayano Yoshida, Rihito Kuroda, Hiroshi Shibata, Taku Shibaguchi, Naoya Kuriyama and Shigetoshi Sugawa

E2020-16(W)  A Study on High Full Well Capacity Wide Dynamic Range Wide Spectral Response CMOS Image Sensor and its Applications
Yasuyuki Fujihara, Maasa Murata, Shota Nakayama, Rihito Kuroda, and Shigetoshi Sugawa

E2020-17(C)  Improvement of the Surface Roughness of LTPS Thin Films with Additional Laser Irradiation
Fuminobu Hamano, Akira Mizutani, Kaname Imokawa, Daisuke Nakamura, Tetsuya Goto, Hiroshi Ikenoue

E2020-18(C)  A Global Shutter Wide Dynamic Range Soft X-ray CMOS Image Sensor with BSI Pinned Photodiode, Two-stage LOFIC and Voltage Domain Memory Bank