# Joint International Conference on The 8th ICMAP & The 9th ISFM

**January 17-20, 2021 | Online Conference**

## [TC4] Plasma Deposition and Etching - II (GWP, Thermal, ALE, MTJ, DFT)

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<td>Se Hun Kwon (Pusan Nat’l Univ., Korea)</td>
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### [TC4-1] 16:30-16:50

**Etch Characteristics of SiO<sub>2</sub> Using Lower Global Warming CxF<sub>x</sub> (x=5,7) Inductively Coupled Plasmas**

Da In Sung, Geun Young Yeom, Dong Woo Kim, and Hyun Woo Tak

* Sungkyunkwan Univ., Korea

### [TC4-2] 16:50-17:10

**Influence of Carbon Source Gas Flow Rate on High-rate Deposition of Polycrystalline Diamond Film Using Time-Series Exposure of Modulated/Non-Modulated Induction Thermal Plasmas**

Kazufumi Hata, Naoki Kano, Yusuke Nakano, Yasunori Tanaka, and Tatsuo Ishijima

* Kanazawa Univ., Japan

### [TC4-3] 17:10-17:30

**Atomic Layer Etching of SiO<sub>2</sub> and Si<sub>3</sub>N<sub>4</sub> with Fluoroether and Fluoroalcohol Compounds**

Yongjae Kim, Yebin Lee, Seonghyeon Lee, and Heeyeop Chae

* Sungkyunkwan Univ., Korea

### [TC4-4] 17:30-17:50

**Study on Etch Characteristics of Magnetic Tunnel Junction (MTJ) Materials Using Hydrogen Based Reactive Ion Beam**

Yun Jong Jang, Doo San Kim, Ju Eun Kim, Ye Eun Kim, You Jung Gill, and Geun Young Yeom

* Sungkyunkwan Univ., Korea

### [TC4-5] 17:50-18:10

**Density Functional Theory Study on the Gas-phase Cleaning of SiO<sub>2</sub> Using HF and NH4F**

Romel Hidayat¹, Tanzia Chowdhury¹, Hye-Lee Kim¹, Tirta Rona Mayangsari², Seongjae Cho³, Sangjoon Park⁴, Jongwan Jung¹, and Won-Jun Lee¹

¹Sejong Univ., Korea, ²Pertamina Univ., Indonesia, ³Gachon Univ., Korea, ⁴Wonik IPS, Korea

### [TC4-6] Keynote 18:10-18:50

**Needs of New Plasma Etching Technologies for the Next 10 Years’ Chip Fabrication**

Jong Chul Park

* Samsung Electronics Co., Ltd., Korea