

[TuA3] 2D Materials - II

Session Date	July 14 (Tue.), 2026
Session Time	14:00–16:00
Session Room	Room A (Baekrok Hall A, 1F)
Session Chairs	Prof. Xiaotian Zhang (Suzhou Laboratory, China), Prof. Suresh Sundaram (Georgia Institute of Technology, France)

[TuA3–1] [Invited]

14:00–14:30

Opportunities of Halogen-Based Gas-Phase Reactants during Chemical Vapor Deposition of Transition Metal Dichalcogenides

Benjamin Groven, IMEC, Belgium

[TuA3–2]

14:30–14:45

Electrically Driven Ultraviolet Emission from Carbon-Incorporated h-BN Films Grown by MOCVD

Semi Im, Seokho Moon, Jawon Kim, Jaesub Song, Changuk Ji, Seonghyeon Pak, and Jong Kyu Kim, Pohang University of Science and Technology, Korea

[TuA3–3]

14:45–15:00

Role of h-BN Thickness in MOVPE-Grown III-Nitride Heterostructures: Enabling Detachment and Preserving Material Quality

T. M. Tran, P. Vuong, V. Ottapilakkal, M. Bourras, P.L. Voss, S. Sundaram, J.P. Salvestrini, and A. Ougazzaden, Georgia Institute of Technology, France

[TuA3–4]

15:00–15:15

Hexagonal Boron Nitride/Aluminium Gallium Nitride Heterojunction for High-Performance Deep Ultraviolet Photodetection

Jawon Kim¹, Seokho Moon², Semi Im¹, Jaesub Song¹, Changuk Ji¹, Seonghyeon Pak¹, and Jong Kyu Kim¹,
¹Pohang University of Science and Technology, Korea, ²Ajou University, Korea

[TuA3-5]

15:15–15:30

MOCVD Growth of 2D Post-Transition Metal Chalcogenides

Robin Gönkel, Nils Langlotz, Samane Badrosadat Ojaghi, Max Bergmann, Jürgen Belz, and Kerstin Volz, Philipps-Universität Marburg, Germany

[TuA3-6]

15:30–15:45

Scalable Hexagonal Boron Nitride-Based Memristors with Reliable Analog Switching Behavior

Jaesub Song¹, Jungho Lee², Seokho Moon³, Seonghyeon Pak¹, Semi Im¹, Jawon Kim¹, Changuk Ji¹, Jiye Kim¹, Hyeonwoo Lee², Beomjin Park², Dong-Seok Kim⁴, Changwook Jeong², and Jong Kyu Kim¹, ¹Pohang University of Science and Technology, Korea, ²Ulsan National Institute of Science and Technology, Korea, ³Ajou University, Korea, ⁴Korea Atomic Energy Research Institute, Korea

[TuA3-7]

15:45–16:00

Influence of Pre-Growth Treatment on the Homoepitaxial Growth of MOVPE BN on ¹⁰BN Flakes

A. K. Dąbrowska¹, I. Nowik¹, R. Bożek¹, M. Tokarczyk¹, K. Ludwiczak¹, B. Furtak¹, P. Tatarczak¹, P. Maksymiuk¹, J. Iwański¹, G. Cassabois², B. Gil², T. Poirier³, J. Li³, J.H. Edgar³, J. Binder¹, and A. Wyszomatek¹, ¹University of Warsaw, Poland, ²Université de Montpellier, France, ³Kansas State University, USA