

2019 7th SKKU

Workshop on Materials Frontier Research

Jan. 21 – 22, 2019

Rm 9B217 International Hall (국제관)

SKKU Seoul, Korea

Sustainable Global Values

Global AMSE: Bring in the world's best

Topics on

Atomically Engineered Materials and Processing

Invited Speakers

| | |
|--------------------|---|
| Jean-Marc Triscone | (University of Geneva, Switzerland) |
| Erwin Kessels | (Eindhoven University of Technology, Netherlands) |
| Jamie Teherani | (Columbia University, USA) |
| Taro Hitosugi | (Tokyo Institute of Technology, Japan) |
| Rodney Ruoff | (UNIST, Korea) |
| Chang-Beom Eom | (Univ. of Wisconsin-Madison, USA) |
| Jeewan Kim | (MIT, USA) |
| Sang-Ho Oh | (SKKU, Korea) |
| Sang-Woo Kim | (SKKU, Korea) |

2019 7th SKKU Workshop on Materials Frontier Research

-Topics on

Atomically Engineered Materials and Processing-

Date

Jan. 21 – 22 , 2019

Venue

Room 9B217 International Hall (국제관),
Sungkyunkwan University, Seoul, Korea

Welcome to SKKU Workshop on Materials Frontier Research (SWMFR-7)

We are pleased to announce that the 7th SKKU Workshop on Materials Frontier Research (SWMFR-7) with a subject of Atomically engineered materials and processing will be held at Sungkyunkwan University, Seoul, Korea from Jan. 21 to 22, 2019.

The workshop was initiated by BKPlus 21, GEC Center for Emergent Materials, School of Advanced Materials Science and Engineering, Sungkyunkwan University (SKKU) at 2013. The SKKU workshop is intended to exchange new ideas and results, and promote interaction and cooperation between SKKU faculty and world-wide distinguished scientists in materials science and engineering.

Continuing the previous workshops, we focus the workshop topic on "Atomically engineered materials and processing" and invite world-wide distinguished scientists at the leading edge of Atomically engineered materials and processing.

We believe that this workshop gives an insight and perspective to scientists and students attending the workshop. All scientists in the relevant research area who are interested in the workshop, are welcome.

Program

Jan.21 (Mon.)

Session I 10:30~11:50

Chang-Beom Eom
Sang-Ho Oh

Session II 13:30~14:50

Erwin Kessels
Rodney Ruoff

Session III 15:20~16:40

Jeewan Kim
Jamie Teherani

Jan.22 (Tue.)

Session IV 10:00~10:40

Jean-Marc Triscone

Session V 10:50~12:10

Taro Hitosugi
Sang-Woo Kim

Invited Speakers

Jean-Marc Triscone (University of Geneva, Switzerland)

Erwin Kessels(Eindhoven University of Technology, Netherlands)

Jamie Teherani (Columbia University, USA)

Taro Hitosugi (Tokyo Institute of Technology, Japan)

Rodney Ruoff (UNIST, Korea)

Chang-Beom Eom (Univ. of Wisconsin-Madison, USA)

Jeewan Kim (MIT, USA)

Sang-Ho Oh (SKKU, Korea)

Sang-Woo Kim (SKKU, Korea)

Registration

- Registration fee is complimentary.

Location

The conference will be held at Room 9B217 International Hall, Sungkyunkwan University (SKKU) in Seoul. SKKU is located at the heart of Seoul and easily accessible to cultural relics including many historic palaces and Insadong Antique Street in walking distance. Several public transportations, limousine or subway train, are serviced to reach SKKU in an hour from Incheon International Airport.

Humanities and Social Sciences Campus(Seoul)



2019 7th SKKU Workshop on Materials Frontier Research (Jan. 21-22, 2019)

Sungkyunkwan University (SKKU), Seoul (Humanities and Social Sciences Campus),
International Hall, Room 9B217, Korea

| Date | Division | Time | Invited Speakers |
|-------------------|----------------|--|---|
| Jan. 21 (Mon.) | Opening Remark | 10:20 ~ 10:25 | Sung-Jin Song Vice president of SKKU |
| | | 10:25 ~ 10:30 | Jaichan Lee Director of BK21 Program in Adv. Mater. Sci. & Eng., SKKU : Introduction of Adv. Mater. Sci. & Eng. and BK21 Program |
| | Session I | Session Chair : Prof. Jaichan Lee | |
| | | 10:30 ~ 11:10 | Prof. Chang-Beom Eom (Univ. of Wisconsin-Madison, USA) : Defect-free Synthesis of Quantum Heterostructures via Metal-organic Pulsed Laser Deposition |
| | | 11:10 ~ 11:50 | Prof. Sang-Ho Oh (SKKU, Korea) : Direct Observation of Interface and Surface Reconstruction of Oxides by In-situ Electron Microscopy |
| | Lunch | 11:50 ~ 13:30 | |
| | Session II | Session Chair : Prof. Sang-Ho Oh | |
| | | 13:30 ~ 14:10 | Prof. Erwin Kessels(Eindhoven University of Technology, Netherlands) : Forefront research approaches in atomic layer epositionand etching |
| | | 14:10 ~ 14:50 | Prof. Rodney Ruoff (UNIST, Korea) : Carbon and Related Materials |
| | Coffee Break | 14:50 ~ 15:20 | --- Coffee Break --- |
| | Session III | Session Chair : Prof. Jung Heon Lee | |
| | | 15:20 ~ 16:00 | Prof. Jeehwan Kim (MIT, USA) : Material challenges and opportunities in next generation electronics: from non-silicon electronics to artificial neural networks |
| | | 16:00 ~ 16:40 | Prof. Jamie Teherani (Columbia University, USA) : Transferred via contacts as a device platform for ideal 2D transistors |
| | Social Banquet | | Vice president of SKKU, all invited speakers, and AMSE faculty members * restaurant information will be provided |

| Date | Division | Time | Invited Speakers |
|-------------------|----------------|-------------------------------------|---|
| Jan. 22 (Tue.) | Session IV | Session Chair : Prof. Yong-Hoon Kim | |
| | | 10:00 ~ 10:40 | Prof. Jean-Marc Triscone (University of Geneva, Switzerland) : Structural and electronic properties of nickelate heterostructures |
| | Coffee Break | 10:40 ~ 10:50 | --- Coffee Break --- |
| | Session V | 10:50 ~ 11:30 | Prof. Taro Hitosugi (Tokyo Institute of Technology, Japan) : Atomically Engineered Interfaces in Solid-state batteries |
| | | 11:30 ~ 12:10 | Prof. Sang-Woo Kim (SKKU, Korea) : Triboelectric Nanogenerators for Powering Wearable and Body-Implantable Devices |
| | Closing Remark | 12:10 ~ 12:30 | Dongmok Whang Chair of Adv. Mater. Sci. & Eng. |