Su Bin Choi

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EDUCATION

Mar. 2021 ~ Present	**Sungkyunkwan University** Department of Smart Fab. Technolgy *Advisor: Jong-Woong Kim* *Ph.D. Student*	Suwon, Korea
Mar. 2018 ~ Feb. 2020	**Jeonbuk National University** 전자정보재료공학과 *Advisor: Jong-Woong Kim* *M.S. in Materials Science and Engineering*	Jeonju, Korea

RESEARCH INTERESTS

- Self-healable devices
- Stretchable displays and sensors
- Bumpless interconnection
- AgNW based flexible electrode
- Synthesis of flexible materials

PUBLICATIONS (SCIE/ESCI)

1. Hyun Sik Shin,Su Bin Choi,Jong-Woong Kim, "Harnessing Highly Efficient Triboelectric Sensors and Machine Learning for Self-Powered Intelligent Security Applications", *MATERIALS TODAY ADVANCES*, (2023)
2. Su Bin Choi,Hyun Sik Shin,Jong-Woong Kim, "ognitive Convolution Neural Networks-Assisted Development of Intelligent Motion Detector Comprising Electrospun Reversibly-Crosslinkable Polymers and Encapsulated Ag Nanowires", *ACS APPLIED MATERIALS & INTERFACES*, (2023)
3. Tran Duc Khanh,Jagan Singh Meena,Su Bin Choi,Jong-Woong Kim, "Breathable, Self-Healable, Washable and Durable All-Fibrous Triboelectric Nanogenerator for Wearable Electronics", *MATERIALS TODAY ADVANCES*, (2023)
4. Su Bin Choi,Jagan Singh Meena,Jinho Joo,Jong-Woong Kim, "Autonomous Self-Healing Wearable Flexible Heaters Enabled by Innovative MXene/Polycaprolactone Composite Fibrous Networks and Silver Nanowires", *ADVANCED COMPOSITES & HYBRID MATERIALS*, (2023)
5. Su Bin Choi,Hooseok Lee,Jinseok Lee,Jong-Woong Kim, "Static electricity-based motion

artifact-free electrocardiography with novel Ti3C2Tx MXene/Ag nanowire/polymer hybrid dry electrodes", *JOURNAL OF MATERIALS CHEMISTRY B*, (2023)

6. Su Bin Choi,Jagan Singh Meena,Jong-Woong Kim, "Revolutionizing Thermal Stability and Self-Healing in Pressure Sensors: A Novel Approach", *ADVANCED FIBER MATERIALS*, (2023)
7. Jagan Singh Meena,Su Bin Choi,Seung-Boo Jung, "Advances in Silver Nanowires-Based Composite Electrodes: Materials Processing, Fabrication, and Applications", *ADVANCED MATERIALS TECHNOLOGIES*, (2023)
8. Su Bin Choi,Jung-Min Oh,Jagan Singh Meena,Hanjung Kwon,Seung-Boo Jung,Jong-Woong Kim, "Role of Oxygen in the Ti3AlC2 MAX Phase in the Oxide Formation and Conductivity of Ti3C2-Based MXene Nanosheets", *ACS APPLIED MATERIALS & INTERFACES*, (2023)
9. Jung-Min Oh,Su Bin Choi,Taeheon Kim,Jikwang Chae,Hyeonsu Lim,Jae-Won Lim,In-Seok Seo,Jong-Woong Kim, "Calcium annealing approach to control of surface groups and formation of oxide in Ti3C2Tx MXene", *ADVANCES IN NANO RESEARCH*, (2023)
10. Jagan Singh Meena,Su Bin Choi,Seung-Boo Jung,Jong-Woong Kim, "Electronic Textiles: new age of wearable technology for healthcare and fitness solutions", *MATERIALS TODAY BIO*, (2023)
11. Eul-Yong Shin,Su Bin Choi,Jong Ho Lee,Byungwook Yoo,Chul Jong Han,So Hyun Park,Jun Hong Noh,Jong-Woong Kim,Hae Jung Son, "An Inverted Layer-by-Layer Process to Enable Ultrasmooth MXene–Ag Nanowire Hybrid Electrode for Organic Photovoltaics", *SOLAR RRL*, (2023)
12. Jagan Singh Meena,Su Bin Choi,Tran Duc Khanh,Hyun Sik Shin,Jun Sang Choi,Jinho Joo,Jong-Woong Kim, "Highly stretchable and robust textile-based capacitive mechanical sensor for human motion detection", *APPLIED SURFACE SCIENCE*, (2023)
13. Jagan Singh Meena,Su Bin Choi,Jong-Woong Kim, "Review on Ti3C2-Based MXene Nanosheets for Flexible Electrodes", *ELECTRONIC MATERIALS LETTERS*, (2022)
14. Hyun-Su Lim,Su Bin Choi,Hanjung Kwon,Jae-Won Lim,Chul Jong Han,Jung-Min Oh,Jong-Woong Kim, "Development of a highly flexible composite electrode comprised of Ti3C2-based MXene nanosheets and Ag nanoparticles", *ELECTRONIC MATERIALS LETTERS*, (2021)
15. Su Bin Choi,Chan-Jae Lee,Chul Jong Han,Jae-Wook Kang,Cheul-Ro Lee, "Self-healable capacitive photodetectors with stretchability based on composite of ZnS:Cu particles and reversibly crosslinkable silicone elastomer", *ADVANCED MATERIALS TECHNOLOGIES*, (2020)
16. Su Bin Choi,Chul Jong Han,Cheul-Ro Lee,Jong-Woong Kim, " Interfaceless Strain and Pressure-Sensitive Stretchable Capacitor Based on Self-Bonding and Surface Morphology Control of a Reversibly Crosslinkable Silicone Elastomer", *ADVANCED MATERIALS TECHNOLOGIES*, (2020)
17. Su Bin Choi,Min Suk Oh,Chul Jong Han,Jae-Wook Kang,Cheul-Ro Lee,Jinseok Lee,Jong-Woong Kim, "Conformable, thin and dry electrode for electrocardiography using composite of silver nanowires and polyvinyl butyral", *ELECTRONIC MATERIALS LETTERS*, (2019)
18. Sungwoo Jun,Su Bin Choi,Chul Jong Han,Yeon-Tae Yu,Cheul-Ro Lee,Byeong-Kwon Ju,Jong-Woong Kim, "Fabrication and Characterization of a Capacitive Photodetector Comprising a ZnS:Cu Particle/Polyvinyl Butyral Composite", *ACS APPLIED MATERIALS & INTERFACES*, (2019)
19. Kwang-Seok Kim,Su Bin Choi,Dae-Up Kim,Cheul-Ro Lee,Jong-Woong Kim, "Photo-induced healing of stretchable transparent electrodes based on thermoplastic polyurethane with embedded metallic nanowires", *JOURNAL OF MATERIALS CHEMISTRY A*, (2018)

PUBLICATIONS (DOMESTIC)

1. 최수빈, 미나자간싱, 김종웅, "Ti3C2TX MXene 기반 유연 전극 기술 개발 동향", 마이크로전자 및 패키징학회지, (2022)
2. 최수빈, 김명훈, 김광석, "수상/해상 태양광발전 시스템의 패키징 기술개발 동향", 마이크로전자 및 패키징학회지, (2020)
3. 최수빈, 이철로, 정승부, 김종웅, "신축성 전극 기술 개발 동향", 마이크로전자 및 패키징학회지, (2019)

4. 신유빈, 주윤희, 최수빈, 김종웅, "신축성 디바이스용 전극 연구 개발 동향", 전기전자재료, (2019)
5. 최수빈, 김종웅, "웨어러블 디바이스용 유연 전극 연구 개발 동향", 전기전자재료, (2018)
6. 김선옥, 최수빈, 김종웅, "플렉서블 디스플레이용 투명전극 제조를 위한 ITO 대체소재 연구동향", 세라미스트, (2018)