

Sanghan Lee

CURRENT STATUS and EXPERIENCE

-Associate professor, School of Materials Science & Engineering, **Gwangju Institute of Science & Technology (GIST)** 2018-present

-Assistant professor, School of Materials Science & Engineering, **Gwangju Institute of Science & Technology (GIST)** 2013-2018

-Postdoctoral Scholar, Dept. of Materials Science & Engineering, **UW-Madison**, 2012 – 2013

-Visiting Researcher, Dept. of Physics, **Penn State University**, 2008

EDUCATION

2007 - 2012 **University of Wisconsin-Madison, Ph.D.** in Materials Science & Engineering

2004 - 2006 **Pohang University of Science and Technology, M.S.** in Materials Science & Engineering

1997 - 2004 **Pohang University of Science and Technology, B.S.** in Materials Science & Engineering

RESEARCH SUBJECTS

Epitaxial oxide thin films photoelectrodes

TMDs based heterostructures thin films photoelectrodes

Emergent phenomena on strained complex oxide epitaxial thin films

Heterostructure of high T_c superconductor thin films (Fe-based superconductor)

REPRESENTATIVE PUBLICATIONS

-Hyunji An[†], Hyo Jin Hong[†], Yong-Ryun Jo, Jongmin Lee, Hongji Yoon, So-Young Kim, Jaesun Song, Sang Yun Jeong, Byoung Hun Lee, Soon-Gil Jung, Tuson Park, Sangmo Kim, Sangwoo Kim, Tae Yeong Koo, Kyung-Tae Ko, Bongjae Kim, Bong-Joong Kim*, Chung Wung Bark*, and **Sanghan Lee***, Reversible magnetoelectric switching in multiferroic three-dimensional nanocup heterostructure films, **NPG Asia Materials** (2019), 11, 68

-Sehun Seo, Seungkyu Kim, Hojoong Choi, Jongmin Lee, Hongji Yoon, Guangxia Piao, Jun-Cheol Park, Yoonsung Jung, Jaesun Song, Sang Yun Jeong, Hyunwoong Park, **Sanghan Lee***, Direct In situ Growth of Centimeter-scale Multi-heterojunction MoS₂/WS₂/WSe₂ Thin Film Catalyst For Photoelectrochemical Hydrogen Evolution, **Advanced Science**, (2019), 6, 1900301

-Jaesun Song, Min Ji Seo, Tae Hyung Lee, Yong-Ryun Jo, Jongmin Lee, Taemin Ludvic Kim, So-Young Kim, Seung-Mo Kim, Sang Yun Jeong, Hyunji An, Seungkyu Kim, Byoung Hun Lee, Donghwa Lee, Ho Won Jang, Bong-Joong Kim, and **Sanghan Lee***, Tailoring crystallographic orientations to substantially enhance charge separation efficiency in anisotropic BiVO₄ photoanodes, **ACS Catalysis**, (2018), 8, 5952

-Jaesun Song, Kyoung Soon Choi, Min Ji Seo, Yong-Ryun Jo, Jongmin Lee, Taemin Ludvic Kim, Sang Yun Jeong, Hyunji An, Ho Won Jang, Bong-Joong Kim, Cheolho Jeon, and **Sanghan Lee***, Non-Equilibrium Deposition in Epitaxial BiVO₄ Thin Film Photoanodes for Improving Solar Water Oxidation Performance, **Chemistry of Materials** (2018), 30 (16), 5673

-Jaesun Song, Taemin Ludvic Kim, Jongmin Lee, Sam Yeon Cho, Jaeseong Cha, Sang Yun Jeong, Hyunji An, Wan Sik Kim, Yen-Sook Jung, Jiyoung Park, Gun Young Jung, Dong-Yu Kim, Ji Young Jo, Sang Don Bu, Ho Won Jang*, **Sanghan Lee***, Domain-engineered BiFeO₃ thin film photoanodes for highly enhanced ferroelectric solar water splitting, **Nano Research** (2018), 11 (2), 642

-Jaesun Song+, Jaeseong Cha+, Mi Gyoung Lee, Sehun Seo, Ji Ae Yoo, Taemin Ludvic Kim, Jongmin Lee, Heesung No, Do Hyun Kim, Sang Yun Jeong, Hyunji An, Byoung Hun Lee, Chung Wung Bark, Ho Won Jang and **Sanghan Lee***, Template-engineered epitaxial BiVO₄ photoanodes for efficient solar water splitting, **Journal of Materials Chemistry A** (2017), 5, 18831

- **Sanghan Lee**, C. Tarantini, P. Gao, J. Jiang, J. D. Weiss, F. Kametani, C. M. Folkman, Y. Zhang, X. Q. Pan, E. E. Hellstrom, D. C. Larbalestier and C. B. Eom, Artificially engineered superlattices of pnictide superconductors, **Nature Materials**, (2013), 12, 392-396

- **Sanghan Lee**, J. Jiang, Y. Zhang, C. W. Bark, J. D. Weiss, C. Tarantini, C. T. Nelson, H. W. Jang, C. M. Folkman, S. H. Baek, A. Polyanskii, D. Abaimov, A. Yamamoto, J. W. Park, X. Q. Pan, E. E. Hellstrom, D. C. Larbalestier, and C. B. Eom, Template engineering of Co-doped BaFe₂As₂ single-crystal thin films, **Nature Materials**, (2010), 9, 397-402