

MSE SEMINAR

January 26, 2018

113 McBryde Hall

3:30 – 4:30 PM

Refreshments at 3:00 PM

Professor Yaodong Yang

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“Photocatalysis: New Duty of Ferroelectricity Materials”

ABSTRACT

The triumph of AlphaGo marks our entrance into the intelligent epoch. As the cornerstone to build this intelligent society, smart ferroelectric materials attract a lot of interests due to a wealth of intriguing properties and potential for a wide range of novel technologies. Our recent findings further enriched their applications. The experimental data demonstrated that ferroelectric materials can help us to better use the light and to design excellent photocatalyzers. After absorbing light, semiconductors produce electron-hole pairs, which can degrade organic pollutants. However, these important electron-hole pairs recombine easily and quickly as their lifetime is short. Well designed ferroelectric materials can reduce the probability of electron-hole recombination and improve the photocatalytic efficiency.

BIOSKETCH

Yaodong Yang is an Associate Professor at Xi'an Jiaotong University. He received a B.S. degree from Zhejiang University (2005), an M.Eng. degree from University of Dayton, and a Ph.D. degree from Virginia Tech (2011), all of them in Materials Science and Engineering. He became a faculty member at Xi'an Jiaotong University in 2011 and was promoted to an associate professor in 2016. Dr. Yang has published more than 50 peer-reviewed articles with 594 citations and 1 patent. He is an editorial member of Scientific Reports (Nature publish group) and reviewers of several prestigious journals. He has several awards and he participated in a number of research projects supported by the Natural Science Foundation of China, the Ministry of Science and Technology, and the Ministry of Education of China.