**Special Materials Seminar**

Department of Materials Science & Engineering

# Monday May 14, 2018

1:30– 2:30 ~ Ferris 405

"Developing advanced cost-effective high-performance fossil energy materials: Modeling and experiments"

**Speaker: Dr. Michael Gao, Principle Materials Scientist-AECOM**
US Department of Energy National Energy & Technology Laboratory-Albany, OR

Abstract:

M.C. Gao1,2, M. Detrois1,2, K.A. Rozman1,2, R.P. Oleksak1,2, C. Carney1,2, A. Rodriguez1,3, Ö.N. Doğan1, P.D. Jablonski1, M. Ziomek-Moroz1, G. Holcomb1, D. Maurice1, J. Tylczak1, Y.H. Wen1, J.A. Hawk1, and D.E. Alman1

1National Energy Technology Laboratory, 1450 Queen Ave SW, Albany, OR 97321, USA

2AECOM, P.O. Box 1959, Albany, OR 97321, USA 3ORISE, Oak Ridge, TN, USA

Dr. Michael Gao is a principal materials scientist of AECOM at the US DOE National Energy Technology Laboratory (NETL). Currently he serves as the chair of Alloy Phases Committee of TMS and the secretary of Alloy Phase Diagram Committee of ASM International. He received his PhD degree in Materials Science from University of Virginia (UVa) in 2002, and then he spent two years at UVa and three and half years at Carnegie Mellon University as postdoc research associate. He started working for NETL at the Albany OR site as an onsite contractor researcher since 2008. He has published 70+ peer-reviewed journal papers and book chapters including Progress in Materials Science and Nature Communications. His recent research focus is accelerating high-performance materials design and development by integrating multi-scale computational modeling with critical experiments. His research experience involves a wide range of materials including high-entropy alloys, refractory metal alloys, metallic glasses, solid oxide fuel cells, hydrogen separation membranes, and traditional Ni-, Fe-, Ti-, and Al-based alloys.

Biography:

Dr. Michael Gao is a principal materials scientist of AECOM at the US DOE National Energy Technology Laboratory (NETL). Currently he serves as the chair of Alloy Phases Committee of TMS and the secretary of Alloy Phase Diagram Committee of ASM International. He received his PhD degree in Materials Science from University of Virginia (UVa) in 2002, and then he spent two years at UVa and three and half years at Carnegie Mellon University as postdoc research associate. He started working for NETL at the Albany OR site as an onsite contractor researcher since 2008. He has published 70+ peer-reviewed journal papers and book chapters including Progress in Materials Science and Nature Communications. His recent research focus is accelerating high-performance materials design and development by integrating multi-scale computational modeling with critical experiments. His research experience involves a wide range of materials including high-entropy alloys, refractory metal alloys, metallic glasses, solid oxide fuel cells, hydrogen separation membranes, and traditional Ni-, Fe-, Ti-, and Al-based alloys.