



Troy A. Semelsberger began his LANL career as a graduate research student under the mentorship of Rod L. Borup, converted to a LANL post-doctoral position with Kevin C. Ott in 2005 and subsequently converted to a LANL staff scientist in 2006. Troy A. Semelsberger received a B.A. in Chemistry from the College of Wooster and a B.S.E. in Chemical Engineering from Case Western Reserve University in 1996. Troy received his Masters and Ph.D. in Chemical Engineering from Case Western Reserve University in 1999 and 2005, respectively. He served in the United States Army Reserves and was Honorably Discharged in 1998. Troy has over 50 publications (published or in preparation) where he is first author on 25 of them. He contributed a book chapter (Chemical Hydrogen Storage in Chemical Carriers) in the Encyclopedia of Electrochemical Power Sources. He has an H-factor of 14 and over 2000 citations. His research contributions have garnered over 10,000 reads on Research Gate. He has given numerous oral presentations on energy related topics including hydrogen storage, hydrogen production, and materials research. His research on dimethyl ether has been used and cited by numerous energy companies around the world. He was a contributing member of the DOE Chemical Hydrogen Storage Material Center of Excellence (Directors: Bill Tumas and Kevin Ott). He was the LANL P.I. and the Chemical Hydrogen Storage System Architect for EERE's Hydrogen Storage Engineering Center of Excellence (HSECoE). He is a member of Sigma Xi, the International Honor Society of Science and Engineering Research (inducted in 2005). Troy was awarded the 2014 DOE Hydrogen and Fuel Cell Program R&D Award In recognition of outstanding achievements in the analysis of chemical hydrogen storage material systems. Troy was also part of two performance awards given in 2015—Distinguished Performance Award: ALT 940 Comparison of Concepts Competition Winning Team and the Defense Programs Exceptional Achievement Team Award. Troy is a board member with the Hydrogen Storage and Production Team within H2@Scale. He served as Co-Chair of the Fuel Reforming Session of the 205<sup>th</sup> ECS Meeting and as the Co-Chair of the Hydrogen Storage Session of the 2012 World Hydrogen Energy Conference. His current research focus is focused on catalyst development and materials characterization for converting biomass to high valued chemicals and fuels (BETO: CoOptima, ChemCat Bio and FCIC). His interests are in reaction

engineering and catalysis while pushing the design envelope for collecting reaction and materials data under extreme conditions.