

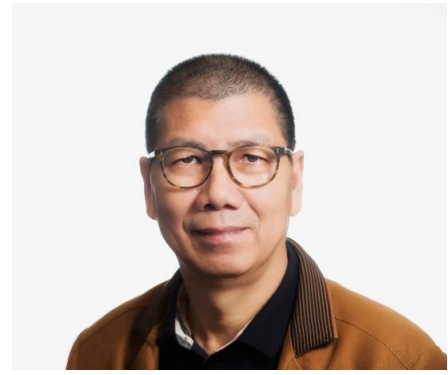
CONFERENCE WEBSITE

<https://www.iage-net.org/igec2022>

# 14th International Green Energy Conference

(IGEC-XIV)

July 4-8, 2022 | Virtual

Name	Jun Liu	
Affiliation	Pacific Northwest National Laboratory-University of Washington	
<b>Invited Plenary Lecture</b>		
Presentation Title	<b>Pushing the frontier of energy storage materials and next generation batteries (Battery500 Phase 2)</b>	
Abstract (Approximately 200 words)	<p>Batteries play a critical role in modern society. The electrification of transportation and deep decarbonization of the energy infrastructure require the development and deployment of high energy, low-cost battery materials and technologies, but energy storage and electric vehicles have very different requirements and challenges. Here we will discuss and analyze key approaches for developing next generation energy storage materials and technologies, as well as challenges in these approaches. In particular, we will discuss scientific barriers for using Li metal for high energy batteries with a specific energy much higher than <math>300 \text{ Wh kg}^{-1}</math>. The seminar will summarize the current understanding of the scientific and technological challenges, discuss recent progresses and propose potential directions based on design, fabrication and testing.</p>	
Biographical Sketch (Approximately 200 words)	<p>Jun Liu is a Battelle Fellow at the Pacific Northwest National Laboratory (PNNL), and is a Washington Foundation Innovation Chair and Campbell Chair Professor. He also serves as the Director for Innovation Center for the Battery500 Consortium and the President of the International Coalition for Energy Storage. Jun is one of the highly recognized scientists in materials sciences and clean energy. He received the PNNL Life-Time Achievement Award, Battery Division Technology Award from The Electrochemical Society (ECS) and the DOE EERE Exceptional Achievement Award. He is an elected member of Washington Academy of Science, a Materials Research Society (MRS) Fellow, an Electrochemical Society (ECS) Fellow, and an American Association for the Advancement of Science (AAAS) Fellow. He was named a Distinguished Inventor of Battelle in 2007, and was two times selected as PNNL's Inventor of the Year. Jun has been ranked as a highly cited researcher in the world since 2014, and is among the few who are highly cited researchers in the world in more than three fields.</p>	