

# AI-Mat Frontier Workshop

Perspectives on Sustainable Energy Materials:

Catalysts and Battery Materials

October 6th 2023

Venue: R212, Center for Condensed Matter Sciences, National

Taiwan University

Topic	Speaker	Time
Opening Remarks (13:30-13:40)		
<b>(Keynote lecture)</b> New theory and computational methods applied to designing better materials for energy, environment, and sustainability, with applications ranging from Li anode batteries to electrocatalytic CO <sub>2</sub> reduction, water splitting, and N <sub>2</sub> reduction, and to H <sub>2</sub> PEM Fuel Cells	Dr. William A. Goddard III	13:40-15:10
Coffee break (15:10-15:40)		
<b>(Invited talk)</b> VLS-growth of 2D Mo <sub>1-x</sub> V <sub>x</sub> S <sub>2</sub> for carbon dioxide photoreduction with water over S <sub>v</sub> -dopant active sites	Dr. Mohammad Qorbani (Dr. Li-Chyong Chen and Dr. Kuei-Hsien Chen group)	15:40-16:00 (15 min talk and 5 min Q&A)
<b>(Invited talk)</b> A DFT study of V-doped MoS <sub>2</sub> for CO <sub>2</sub> reduction reaction	Dr. Ying-Ren Lai (Dr. Michitoshi Hayashi group)	16:00-16:20 (15 min talk and 5 min Q&A)
<b>(Invited talk)</b> Manipulating Spin Exchange Interactions and Spin-Selected Electron Transfers of 2D Metal Phosphorus Trisulfide Crystals for Efficient Oxygen Evolution Reaction	Mr. Chih-Ying Huang (Dr. Chun-Wei Chen group)	16:20-16:40 (15 min talk and 5 min Q&A)
Summary and Closing Remarks (16:40-)		

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