

発表者プロフィール / Presenter Profile

	名前	バトプレブ モンゴル
	Name	Batpurev Mongol
	所属大学/所属機関	大学院工学部 / 東京大学
	University/Affiliation	Graduate School of Engineering, The University of Tokyo

出身国・地域/Country・Region	Mongolia, Ulaanbaatar.
発表テーマ/ Presentation Topic	High efficient catalyst materials for electrochemical CO2 reduction

プロフィール Profile

自己紹介/Self-introduction

My name is Batpurev Mongol. I am from Mongolia. My surname is same as my country name and that is very rare case in my home country. I study on doctoral course at The University of Tokyo, Graduate School of Engineering. Luckily, I live with my family in TIEC. I believe our experience in Japan wouldn't be same if we weren't staying in TIEC facility.

In my free time I like jogging or playing basketball. From my childhood I was admiring the Japanese culture and its rapid technological development. I attended tea ceremony, watched kabuki theatre show and enjoyed it very much. I am attending the Japanese language classes at TIEC in order to experience Japanese culture more deeply. I enjoy these classes as I found it more casual and practical for everyday life.

研究分野について/About study field: Nowadays greenhouse gas emission and global warming become a global scale problem. CO2 is considered as one of the greenhouse gases which is dominating among other GHG. To stop further increase of global warming the mankind need to decrease the CO2 gas emission and recycle carbon dioxide gas. To achieve this goal first we should decarbonize energy source and develop carbon-free society by utilizing renewable energy technologies such as solar, hydro, wind or geothermal energies. Secondly we should develop stable techniques, which are able to recycle CO2 gas into methane, methanol or multicarbon hydrocarbons. Natural photosynthesis is a one of the recycling processes. It converts CO2 into oxygen and glucose using photon energy and water. Yet it has some limitation as land area and phototrophs. Before industrial revolution CO release by natural processes and human activities and the CO2 uptake by photosynthesis was at good balance. The other way is to find a novel catalyst materials which are able electrochemically reduce CO2 directly or via synthesis gas into above mentioned valuable energy sources. My doctoral course theme is electrochemical CO2 reduction. My research is aiming to develop the efficient and stable catalyst materials for the CO2 reduction with low overpotential.

視聴者へのメッセージ Message to viewers

Industrial revolution bring us many advantages. Yet intensive consumption of fossil fuel as an energy source and emission of CO2 as an ultimate byproduct in industrial reactions accumulates CO2 GHG in the atmosphere. This is primary driver of today's climate change. Let's discuss what we can do to prevent further increase of carbon dioxide. Let's build up together a sustainable future for our home-Earth.