

Sustainability through Science & Technology In honor of Ferid Murad (1998 Nobel Laureate) 27 Nov- 1 Dec 2022 Hilton Phuket Arcadia, Thailand Yazami International Symposium



On Secondary Battery Manufacturing & Recycling

Rachid Yazami, PhD

Professor Rachid Yazami is the recipient of the 2014 Draper Prize of the National academy of Engineering, considered as the Nobel Prize of Engineering. He served the Cheng Tsang Man Chair Professor in Energy at the School of Materials Science and Engineering of the Nanyang Technological University (NTU) in Singapore. He also was appointed the Program Director in the Energy Research Institute and Principal Investigator of the TUM-Create Centre of Electromobility in Singapore. Prior to Singapore, Professor Rachid Yazami was a Research Director at the French National Centre for Scientific Research (CNRS) for over 35 years and served as a Visiting Associate at the California Institute of Technology, where he conducted research on electrode materials such as graphite nanotubes, nano-silicon and nano-germanium anodes. In 1980, Professor Rachid Yazami discovered the reversible intercalation of lithium into graphite in an electrochemical cell using a polymer electrolyte. This discovery led to the lithium-graphite anode now used in commercial lithium-ion batteries, an over US\$80B value market.

Prof. Yazami enjoys an international reputation. He was decorated by the King of Morocco in 2014 and is the 2016' Bastille Day recipient of the French Legion d'Honneur, the highest distinction of the French Republic. In 2018 Yazami was awarded the Arab Scientist of the year by the Takreem Foundation in Kuwait City. In 2019 he received the Arab Investor Award in Paris and in 2020 he received the Mohammed bin Rashid Medal for Scientific Excellence in the UAE He serves a Member of the Moroccan Royal Academy of Science and Technology. He co-authored over 200 scientific papers and is the inventor of 170 patents worldwide.

The most recent achievement of Prof. Yazami is the development of the 'non-linear voltammetry' technology (NLV) enabling: 1) ultra-fast charging of electric vehicles below 10 min without excessive heat generation (a world record), 2) 10% to 25% enhancement of the battery' energy storage capability, and 3) doubling the lifespan of the battery. The NLV technology is expected to be commercialized by KVI a company founded by Prof. Yazami in Singapore (www.kvi-battery.sg).