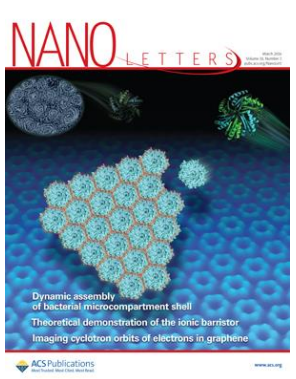
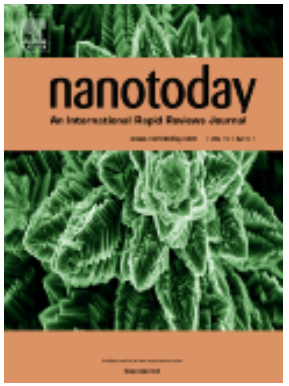
Nanotechnology in Energy Storage and Conversion

Session co-chairs: Hirokazu Kaji (Tohoku Univ), Shirley Meng (UC San Diego)

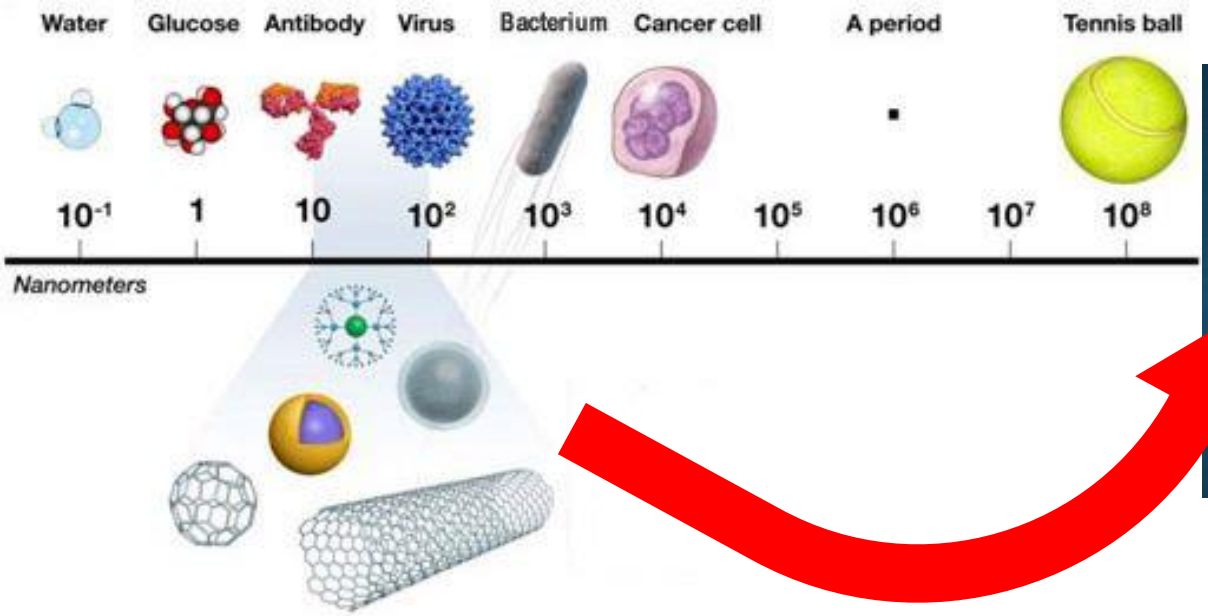
Nano.gov
National Nanotechnology Initiative

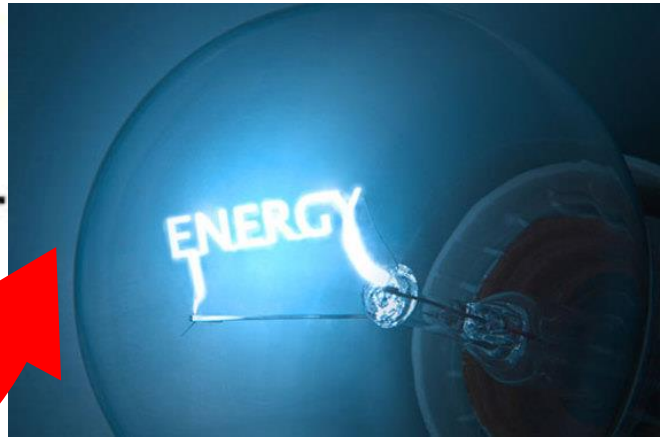
NanotechJapan
Nanotechnology Platform





IEEE NANO
Nanotechnology Council
IEEE NANO 2016
16th INTERNATIONAL CONFERENCE ON NANOTECHNOLOGY
22 – 25 AUGUST 2016 | SENDAI (JAPAN)





Potential Applications of Nanotech in Energy Storage and Conversion

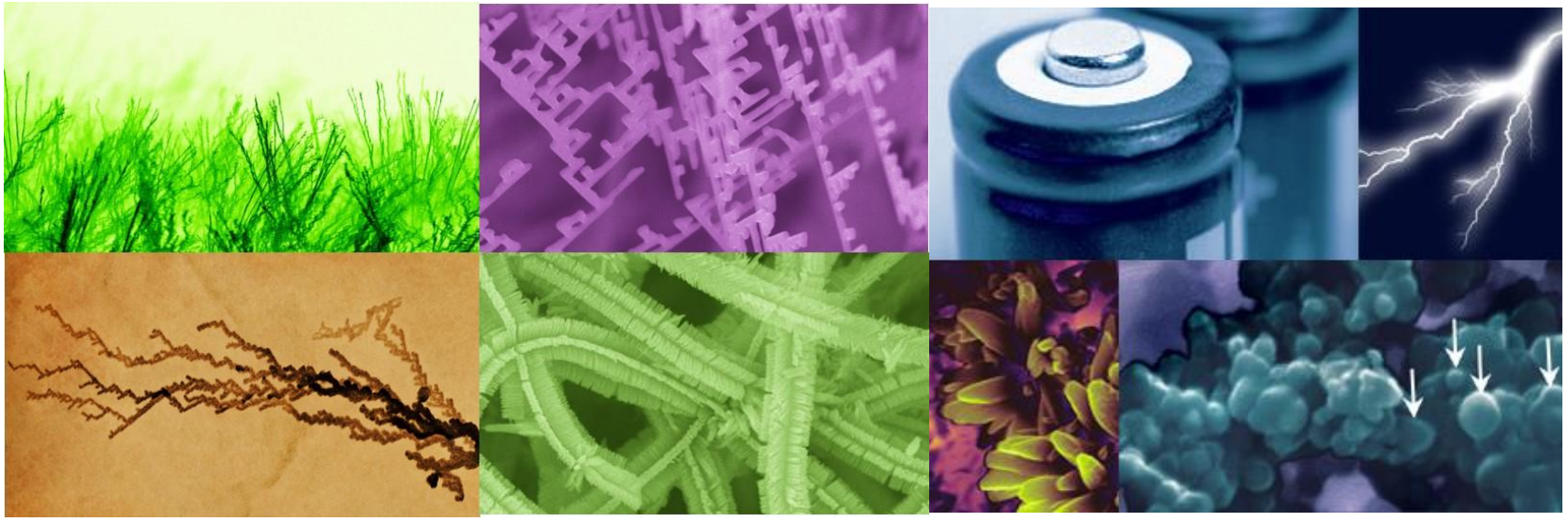
Batteries, Super-capacitors, Fuel cells

Go For Nano

- ☺ Minimize diffusion distance
- ☺ Phase stability change
- ☺ Defect tolerance
- ☺ Enable new chemistry

Need to Take Care of

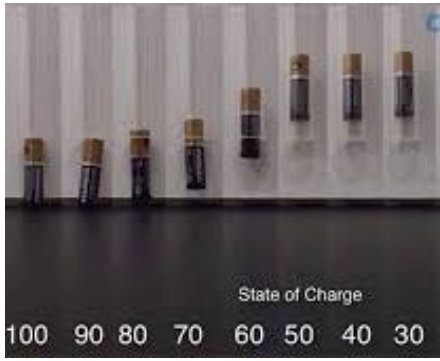
- ☹ Stability due to ***interface***
- ☹ Packing density
- ☹ Scalability of synthesis



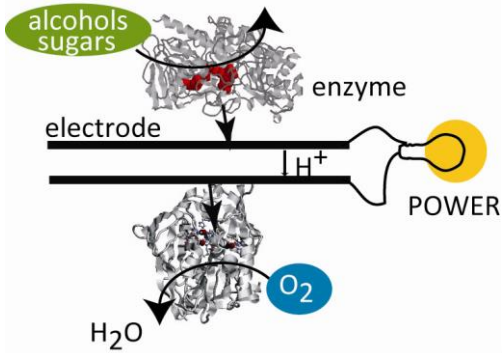
Speakers

Nanomaterials for Energy Storage
Gleb Yushin, Georgia Institute of Technology and Sila Technologies

Hidden in Plain Sight: Understanding and Exploiting Systematic Couples to Improve Batteries
Daniel Steingart, Princeton University



Enzyme-based Biofuel Cells
Seiya Tsujimura, University of Tsukuba



Flexible Devices Using Rigid Materials
Eiji Iwase, Waseda University