TATSUMA LAB.

[Nanoscale Photochemistry]

Center for Photonics Electronics Convergence

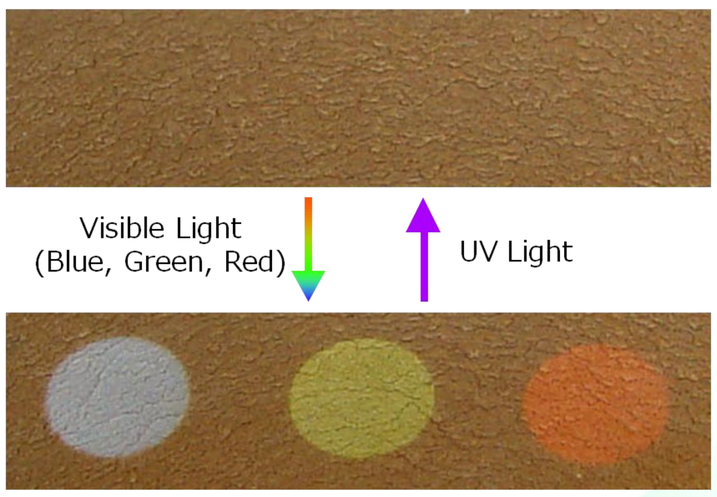
http://www.iis.u-tokyo.ac.jp/~tatsuma/

Advanced Electrochemical Devices

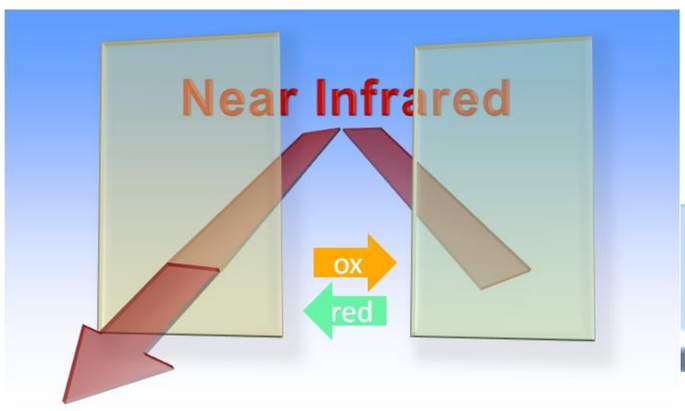
Department of Applied Chemistry

Photofunctional Nanomaterials

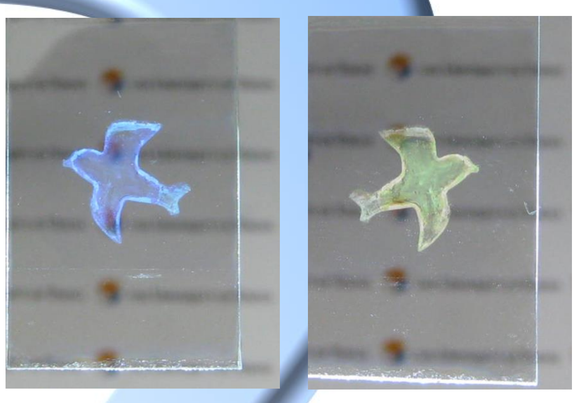
We found that plasmon-induced charge separation is possible at the metal nanoparticle-semiconductor interface. We have applied it to multicolor photo-chromism, photovoltaic systems, photocatalysis, and sensors.



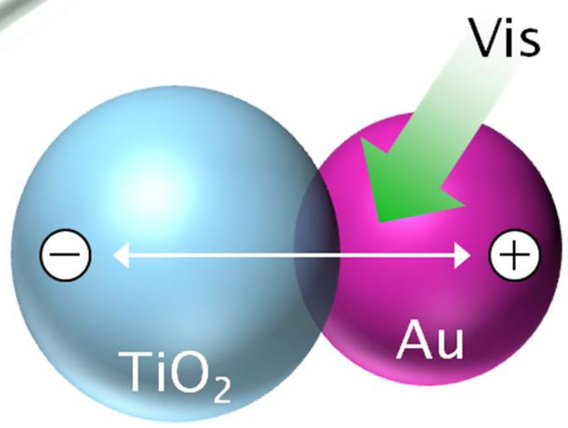
Multicolor Photochromism



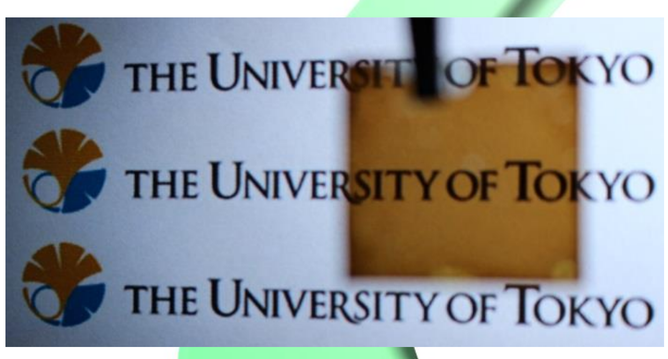
Near Infrared
Smart Window



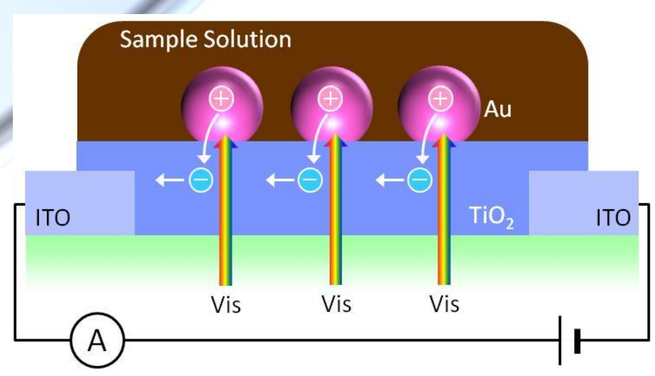
Asymmetric Scattering



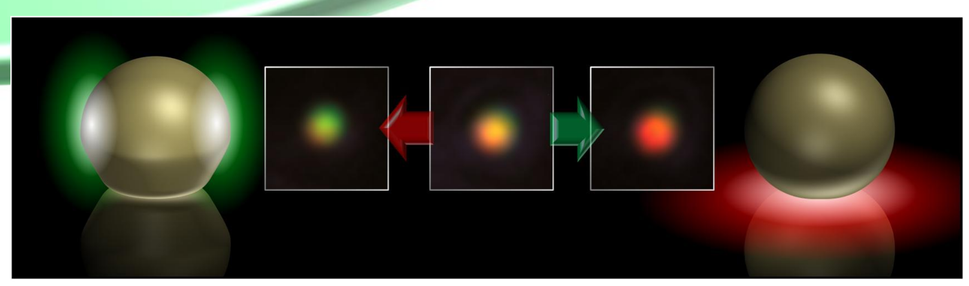
Light Harvesting by
Nanomaterials



Translucent Solar Cell



Plasmonic Sensors for
Colored and Turbid Samples



Nanotopographical
Chages

Photodetectors,
Hydrogen Evolution,
... and More!