





## 나노응용물리연구실 소개 (NAPL)

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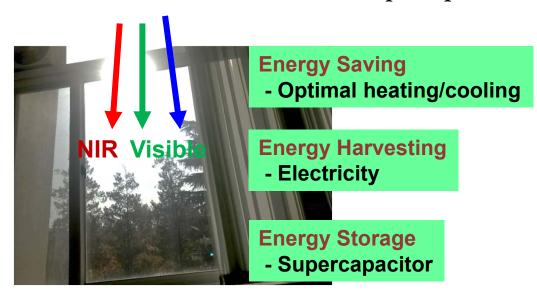


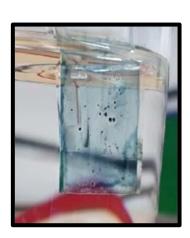
## 학위 연구주제





- The flexible all-solid-state electrochromic devices using core-shell nanowire networks for smart window applications.
- Exploring individual and collective electrochromic dynamics and degradation behaviors of nanostructured metal oxides for smart window applications
- Model for charging dynamics of nanoporous electrodes for electrochromic devices and supercapacitors





Demonstration of EC devices for smart window applications (NAPL)

Nanotechnology and nanomaterials for Bio- and dental applications





## 연구실에서 내가 해야 하는 일





Synthesis

: 1D, 2D, 3D

Tuning the properties
doping, surface
& morphologies control

Characterization

:SEM, TEM, XRD, Raman, XPS, PL, etc

**Nanomaterials** 

 Device fabrication technologies for flexible and all-solid-state devices

: Deposition, printing

: Interface modification

CV, EC, IV measurements

**Device Fabrication** 

In-situ measurements

- Individual nanomaterials characrterization
- In-situ measurement methods : design, fabrication, upgrade

**Simulation Mechanism** 

- Circuit modeling
- Slow charging and coloration mechanism
- Degradation and Enhancement mechanism
- Scale laws

