Polychromatic optical waveguiding is achieved for organic nanowires (NWs) hybridized with light-emitting quantum dots (QDs). Remote biosensing using dye-attached biomaterials is presented by J. Kim, J. Kim, J. Joo, and co-workers by adapting the transportation of QD-emitted light through the organic NWs. The cover image shows white-color waveguiding and remote biosensing using blue light-emitting organic NWs hybridized with QDs.

Bio-sensors

DNA
Nerve Agents
Antibiotics
Melamine
Bacteria
Proteins
Hg²⁺
Virus
PAS
K⁺

Chem Comm 2006, Macro 2006

Optoelectronic Materials

Flexible Solar Cells

Nature Materials

Angewandte Chemie

editorials

Kim Group Current Projects

**Organic Light Emitters**

Organic Phosphors
LED, Sensors,
Solid-state Lighting,

*Nat. Chem. 2011*
*J. Am. Chem. Soc. 2013*
*Angew. Chem. 2014*
*Chem. Mater. 2014*
*Adv. Mater. 2016*

**Designer Functional Organic and Polymer**

Heat Management in Polymer
Supercooled Liquid

*Nature Materials 2015*
*Adv. Mater. 2016*
*Science Advances 2017*

**Optical Biosensors**

Circulating Tumor Cell Detection
Platelet Activation Monitoring
miRNA Detection

*Nature Materials 2015*
*Adv. Mater. 2016*
*Chemical Sci 2016*
*Adv. Mater. 2016*

**Molecular Design for Plastic Electronics**

Liquid Crystalline CPs
Field Effect Transistor
Thermoelectric Polymers

*Nat. Mater. 2013*
*Chemical Sci. 2015*
*Adv. Mater. 2016*

**Heat Management in Polymer**

Supercooled Liquid

*Nature Materials 2015*
*Adv. Mater. 2016*
*Science Advances 2017*