

## SEMINARI 13 DE JULIOL DE 2012

Lloc: Sala d'Actes de la Facultat de Ciències i Biociències  
A les 12.00 hores

### Conferència a càrrec de Prof. Michinori Takeshita

*Department of Chemistry and Applied Chemistry, Saga  
University (Saga, Japan)*

### "Photochromism of cyclophan-1-enes"

Photochromism is a reversible transformation of chemical species induced in one or both directions by absorption of electromagnetic radiation between two forms, A and B, having different absorption spectra. Photochromic compounds have been extensively studied, since they are potential photo-memory and photoswitching materials. Among them, cyclophan-1-enes (Fig. 1) are bridged diarylethenes and have following features.

- Control of thermal stability by the change of X becomes possible.
- Various types of derivatives with various absorption spectra can be synthesized by change of functional group R.
- Photochromic reaction in the limited space is possible since the geometry change before/after photoirradiation is small.
- High quantum yield for photocyclization reaction can be expected because the conformation is fixed to the photoactive one.
- Non-destructive read-out becomes possible by optical rotation change of chiral one and refractive index change.

In this presentation, preparation and photochromic properties of cyclophan-1-enes will be reported.

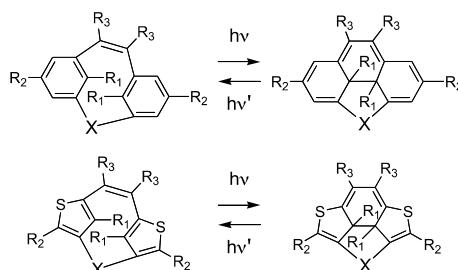


Figure 1 Photochromism of cyclophan-1-enes.

*Aquesta conferència és una activitat formativa programada  
per l'Estudi de doctorat en Química*