

**GDCh** 2011-50/49

**Iodine Chemistry** 

Review by F. C. Küpper, L. Kloo et al.

CO<sub>2</sub> Separation and Capture

Minireview by R. Q. Snurr and Y.-S. Bae

Highlights: Gold Complexes • Receptor Structures • Fuel Cells



# **Cover Picture**

### Xukai Xin, Ming He, Wei Han, Jaehan Jung, and Zhiqun Lin\*

A novel environmentally friendly Pt-free counter-electrode (CE) for dye-sensitized solar cells (DSSCs) based on low-cost quaternary copper zinc tin sulfide (CZTS) nanocrystals is described by Z. Lin and co-workers in their Communication on page 11739 ff. CZTS nanocrystals were synthesized and spin-coated onto fluorine-doped tin oxide glass. After selenization of the CZTS semiconductor, the power conversion efficiency of the resulting DSSC was comparable to that of the device with a Pt CE.





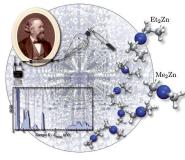
#### **Iodine Chemistry**

F. C. Küpper, L. Kloo, and co-workers look back on 200 years of iodine research in their Review on page 11598 ff. and highlight the significance of this element to nature as well as to chemical research and industry.

#### Photochemistry

In their Communication on page 11622 ff. Z. Dai and co-workers report on the development of a cerasomal photosensitizer of high stability that shows intrinsic fluorescence and significant damage to tumor cells.





## Solid-State Chemistry

In their Communication on page 11685 ff., A. Steiner and co-workers determine the solid-state structures of the classic organometallic compounds dimethylzinc and diethylzinc by X-ray crystallography.