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Noble-Metal Nanocrystals

Review by Y. Xia et al.

Graphene Synthesis

Minireview by X. Feng, K. Müllen et al.

Fluorescence Probes

Highlight by W. Guo et al.

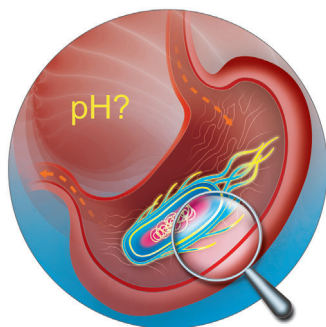
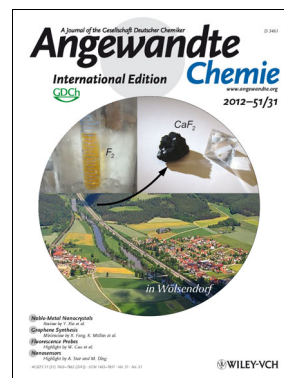
Nanosensors

Highlight by A. Star and M. Ding

Cover Picture

Jörn Schmedt auf der Günne, Martin Mangstl, and Florian Kraus*

The Most Reactive Element fluorine, was long thought not to occur in nature as F_2 . In their Communication on page 7847 ff., F. Kraus and co-workers present first direct evidence from in situ NMR spectroscopy that difluorine is included in the black fluorite “antozonite”, a mineral found close to Wölsendorf, Germany. The picture shows elemental fluorine, “antozonite” (CaF_2), and the town close to where the mineral was found. (The photograph of Wölsendorf was provided by Alois Laumer.)

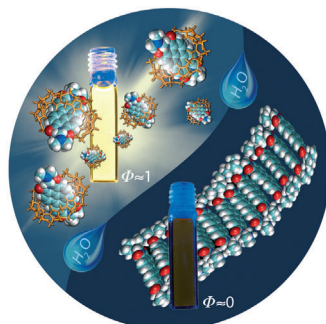
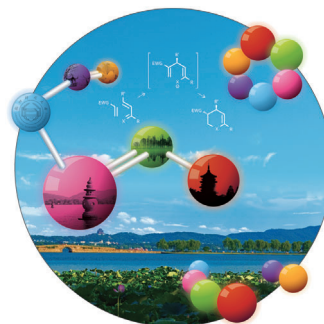


pH Sensor

In their Communication on page 7674 ff., P. R. Chen and co-workers develop a protein-based, non-invasive pH indicator for monitoring a wide range of pH changes (pH 7 to 2) in living cells.

Cascade Reactions

A new cascade reaction that leads to highly functionalized tetrahydropyridines (THPs) by merging an intermolecular aza-Rauhut–Currier reaction with an intramolecular cyclization is reported by G. Zhong, T. P. Loh, et al. their Communication on page 7825 ff.



Dye Deaggregation

O. A. Scherman et al. show in their Communication on page 7739 ff., that complexation of perylene bis(diimide) dyes with a macrocyclic host prevents self-aggregation and enables their use as photochemically stable fluorophores in water.