



On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a

computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

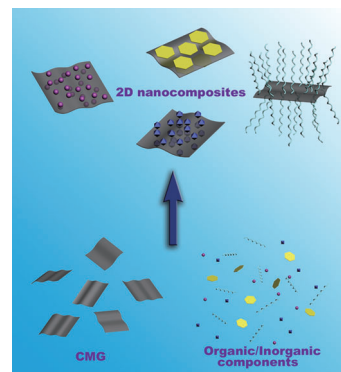


## Graphene

D. Wu, F. Zhang, P. Liu, X. Feng\*

Two-Dimensional Nanocomposites Based on Chemically Modified Graphene

**Hello, flat world!** Due to the presence of multifunctional groups and flat morphology with nm thin thickness, chemically modified graphene (CMG) is regarded as an ideal template for the construction of two-dimensional nanocomposites with various functions. This Concept article will introduce the recent achievements in the bottom-up fabrication of CMG based 2D nanocomposites, which represent the new directions in material sciences.



Chem. Eur. J.  
DOI: 10.1002/chem.201101333

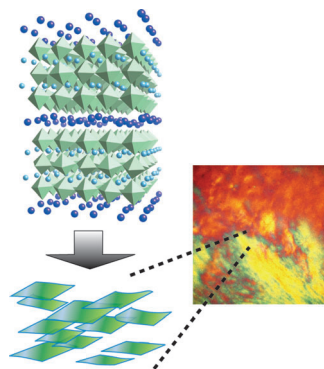


## Nanosheets

N. Miyamoto,\* S. Yamamoto, K. Shimasaki, K. Harada, Y. Yamauchi

Exfoliated Nanosheets of Layered Perovskite  $\text{KCa}_2\text{Nb}_3\text{O}_{10}$  as an Inorganic Liquid Crystal

**Three nanosheets to the wind:** A liquid-crystal phase in the condensed colloids of semiconductor nanosheets of a layered perovskite  $\text{Ca}_2\text{Nb}_3\text{O}_{10}^-$  was synthesized and characterized. Their properties and functionalities are tunable for further fundamental studies and potential applications as smart soft materials.



Chem. Asian J.  
DOI: 10.1002/asia.201100279

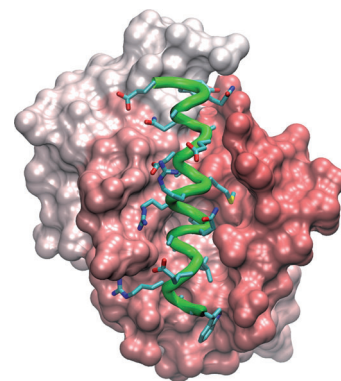


## Apoptosis

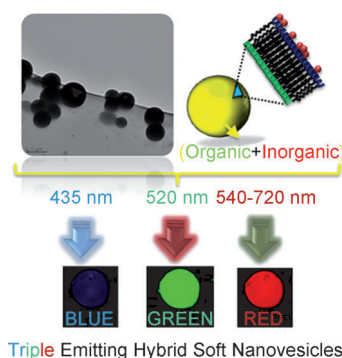
E. F. Lee, B. J. Smith, W. S. Horne, K. N. Mayer, M. Evangelista, P. M. Colman, S. H. Gellman,\* W. D. Fairlie\*

Structural Basis of Bcl-x<sub>L</sub> Recognition by a BH3-Mimetic  $\alpha/\beta$ -Peptide Generated by Sequence-Based Design

**Killer mimetic structure:** We report a crystal structure of anti-apoptotic protein Bcl-x<sub>L</sub> bound to a BH3-mimetic oligomer composed of  $\alpha$ - and  $\beta$ -amino acid residues, and complementary biochemical data. The structure reveals how an  $\alpha/\beta$ -peptide, developed by using a sequence-based design, can accurately mimic an  $\alpha$ -helical prototype (see figure).



ChemBioChem  
DOI: 10.1002/cbic.201100314



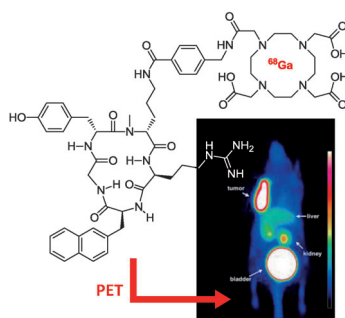
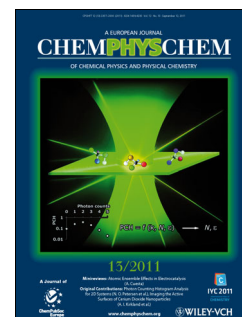
ChemPhysChem  
DOI: 10.1002/cphc.201100426

## Luminescent Nanostructures

Y. S. L. V. Narayana, R. Chandrasekar\*

Triple Emission from Organic/Inorganic Hybrid Nanovesicles in a Single Excitation

**Luminescent Vesicles:** Triple-color-emitting organic/inorganic nanovesicles are successfully prepared through a stepwise self-assembly approach. This innovative "bottom-up" methodology can be used to fabricate multi-luminescent soft organic/inorganic hybrid nanostructures displaying diverse colors.



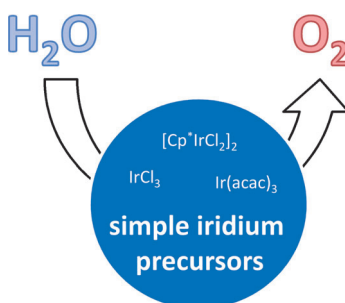
ChemMedChem  
DOI: 10.1002/cmdc.201100320

## Imaging Agents

O. Demmer, E. Gourni, U. Schumacher, H. Kessler,\* H.-J. Wester\*

PET Imaging of CXCR4 Receptors in Cancer by a New Optimized Ligand

**CXCR4 Imaging:** Based on a high-affinity CXCR4 ligand, an imaging agent for CXCR4-positive tumors was developed through structure-activity relationship studies. The best compound was evaluated in vivo and shown to have excellent properties as a positron emission tomography (PET) tracer.



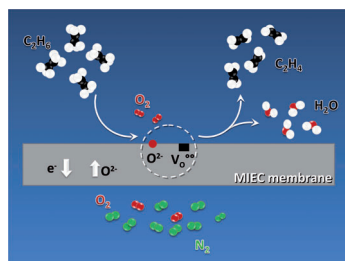
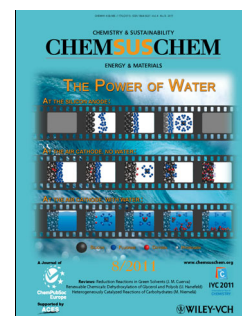
ChemSusChem  
DOI: 10.1002/cssc.201100217

## Water Splitting

N. Marquet, F. Gärtner, S. Losse, M.-M. Pohl, H. Junge, M. Beller\*

Simple and Efficient Iridium(III)-Catalyzed Water Oxidations

**The complex made simple:** Simple and commercially available iridium precursors are tested for their ability to promote water oxidation. The activity values of these precursors towards cerium(IV)-driven oxygen generation from water are comparable with values reported for more complicated iridium-based systems. A turnover frequency of 1700 h<sup>-1</sup> is achieved with IrCl<sub>3</sub>.



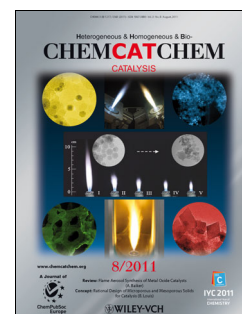
ChemCatChem  
DOI: 10.1002/cctc.201100055

## Dehydrogenation

M. P. Lobera, S. Escolástico, J. M. Serra\*

High Ethylene Production through Oxidative Dehydrogenation of Ethane Membrane Reactors Based on Fast Oxygen-Ion Conductors

**Straight on through to the other side:** Catalytic membrane reactors based on solid-state oxygen conductors enabled us to achieve high ethylene productivity through the oxidative dehydrogenation of ethane. The selectivity is maximized by preventing the direct contact of molecular oxygen and hydrocarbons, by properly selecting the temperature and inlet gas flow rates, and by using methane as a diluting agent.



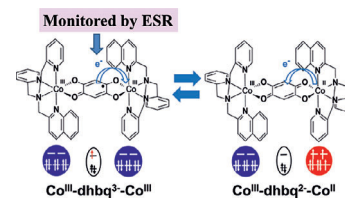


### Light-Induced Valence Tautomerism

Y. Teki,\* M. Shirokoshi, S. Kanegawa, O. Sato\*

ESR Study of Light-Induced Valence Tautomerism of a Dinuclear Co Complex

Light-induced valence tautomerism (LIVT) of a dinuclear complex,  $[\{Co(dpqa)\}_2(dhbq)](PF_6)_3$  (**1**), was investigated by ESR analysis of  $dhbq^{3-}$ . LIVT phenomena were observed in the glass matrix as well as in the powder sample. The signal decay and the relaxation, analyzed by double exponential fitting, suggest a two-step mechanism. Quantum tunneling phenomena were clearly observed in the glass matrix.



*Eur. J. Inorg. Chem.*  
DOI: 10.1002/ejic.201100467

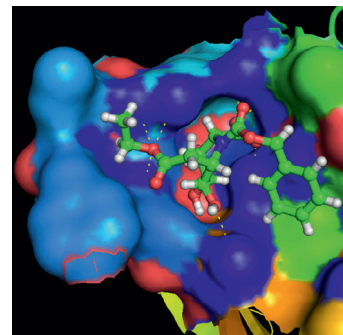


### Iminosugar Inhibitors

A. Orsato, E. Barbagallo, B. Costa, S. Olivieri, L. De Gioia, F. Nicotra, B. La Ferla\*

Iminosugar Analogues of Phosphatidyl Inositol as Potential Inhibitors of Protein Kinase B (Akt)

A small virtual library of iminosugar-based Akt inhibitors have been designed and evaluated by using docking calculations. Selected compounds have been conveniently synthesised, and preliminary biological evaluation identified compound **9** as a possible lead compound for further development of iminosugar-based Akt inhibitors.



*Eur. J. Org. Chem.*  
DOI: 10.1002/ejoc.201100452

## Spot your favourite content!

- daily news on latest research
- overview of best articles from the journals above

**ChemistryViews**

[www.ChemistryViews.org](http://www.ChemistryViews.org)