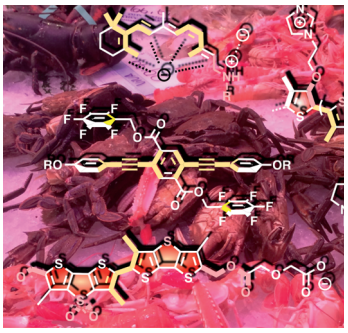
On these pages, we feature a selection of the excellent work that has recently been published in our sister journals. If you are reading these pages on a computer, click on any of the items to read the full article. Otherwise please see the DOIs for easy online access through Wiley Online Library.

Mechanochemistry

M. Dal Molin, Q. Verolet, S. Soleimanpour, S. Matile*

Mechanosensitive Membrane Probes

Lobsters, flippers, disorder, tension and potential: The origins of the concept of mechanosensitive membrane probes—from fishmarket and scuba diving to the chemistry of vision, mechanochromic organic materials and mechanosensitive channels—are briefly reviewed (see scheme).



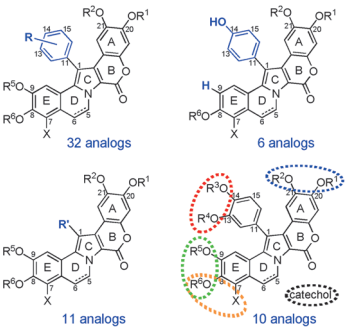
Chem. Eur. J.
DOI: **10.1002/chem.201406320**

Lamellarins

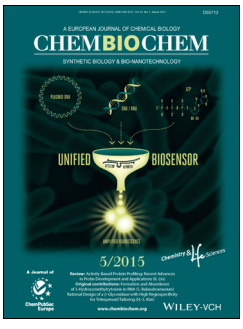
K. Tangdenpaisal, R. Worayuthakarn, S. Karnkla, P. Ploypradith, P. Intachote, S. Sengsai, B. Saimanee, S. Ruchirawat, M. Chittchang*

Designing New Analogs for Streamlining the Structure of Cytotoxic Lamellarin Natural Products

Find a library near you: A library of 59 systematically designed analogs of lamellarins were constructed, including those previously inaccessible by the currently available total synthetic strategies due to the presence of the catechol moieties. In conjunction with the 25 parent lamellarins, their structure was streamlined for both cytotoxicity against a panel of cancer cell lines and lipophilic nature.



Chem. Asian J.
DOI: **10.1002/asia.201403361**



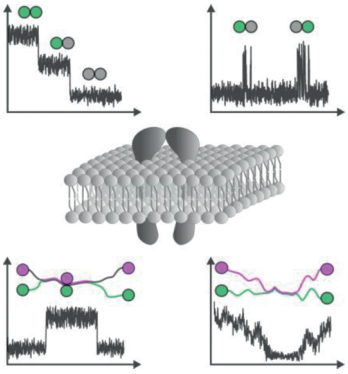
Protein Expression

E. Engholm, T. H. Hansen, E. Johansson, H. M. Strauss, T. N. Vinther, K. J. Jensen,* F. Hubálek, T. B. Kjeldsen

Expression, Receptor Binding, and Biophysical Characterization of Guinea Pig Insulin desB30: A Monomeric Insulin Variant

Cute, cuddly insulin: Guinea pig desB30 insulin was expressed in *Saccharomyces cerevisiae*, and its affinities for the human insulin receptor A and IGF-I receptor were measured for the first time in scintillation proximity assays. Small-angle X-ray scattering and analytical ultracentrifugation studies confirmed that GI does not form dimers or hexamers.

ChemBioChem
DOI: **10.1002/cbic.201402688**



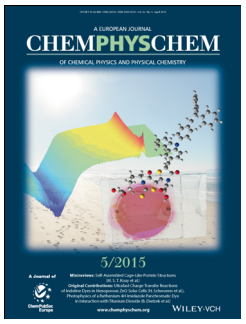
ChemPhysChem
DOI: **10.1002/cphc.201402765**

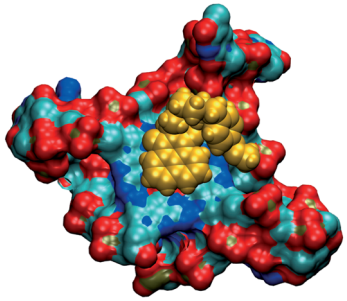
Single Molecules

F. Fricke, M. S. Dietz, M. Heilemann*

Single-Molecule Methods to Study Membrane Receptor Oligomerization

Singles' party: Single-molecule techniques suitable for studying the oligomerization of membrane receptors are reviewed: photobleaching, Förster resonance energy transfer, localization microscopy and co-tracking. Experimental requirements, benefits and difficulties are discussed and biological applications are highlighted.





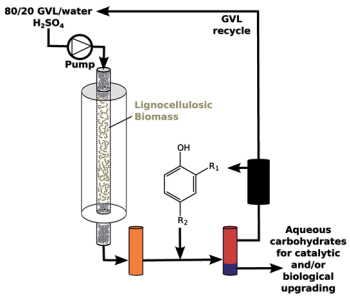
ChemMedChem
DOI: **10.1002/cmdc.201402552**

Antitumor Agents

B. Pagano, J. Amato, N. Iaccarino, C. Cingolani, P. Zizza, A. Biroccio, E. Novellino, A. Randazzo*

Looking for Efficient G-Quadruplex Ligands: Evidence for Selective Stabilizing Properties and Telomere Damage by Drug-Like Molecules

A great quad workout: Drug-like compounds that show specific G-quadruplex thermal stabilizing effects and the capacity to induce telomeric damage in cancer cells were identified as promising leads for the development of more potent and selective ligands with anticancer activity.



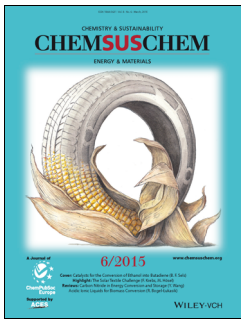
ChemSusChem
DOI: **10.1002/cssc.201403418**

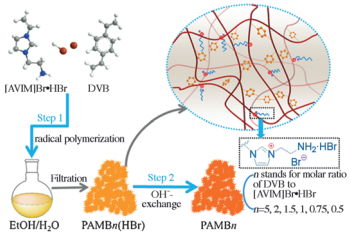
Biomass Conversion

J. S. Luterbacher, D. M. Alonso, J. M. Rand, Y. M. Questell-Santiago, J. H. Yeap, B. F. Pfleger, J. A. Dumesic*

Solvent-Enabled Nonenyzmatic Sugar Production from Biomass for Chemical and Biological Upgrading

Super phenolic solvents: Biomass-derived carbohydrates represent an attractive source of renewable carbon due to their many chemical and biological conversion routes to fuels and chemicals. In a nonenzymatic biomass deconstruction process for producing carbohydrates, separating a mixture of γ-valerolactone (GVL) and water used in the process is a key step. We demonstrate that phenolic solvents are highly effective at separating GVL and can be used to detoxify the biomass-derived mixture for fermentation.





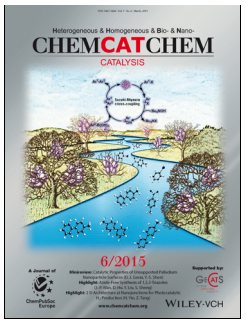
ChemCatChem
DOI: **10.1002/cctc.201402995**

Solid Base Catalysts

X. Wang, J. Li, G. Chen, Z. Guo, Y. Zhou,* J. Wang*

Hydrophobic Mesoporous Poly(ionic liquid)s towards Highly Efficient and Contamination-Resistant Solid-Base Catalysts

Good for Knoevenagel-type reactions: Mesoporous poly(ionic liquid)s-derived solid-base catalysts are prepared, characterized, and evaluated for catalysis. They possess high ionic-liquid-related active species, large surface area, superior hydrophobicity with good substrate compatibility, and good resistance to CO_2/H_2O contamination.

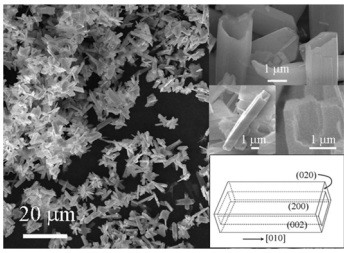


GeSe Microtubes

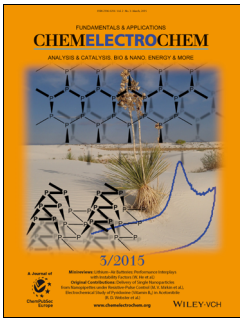
L. Shi,* Y. Li, Y. Dai

Preparation, Formation Mechanism, and Photoresponse Properties of GeSe Microtubes with a Rectangular Cross Section

Controlled growth: A solution approach for the fabrication of GeSe single-crystalline microtubes with rectangular cross sections has been developed, and the GeSe microtubes have a growth axis in the [010] direction and diameters in the range of 1–2 μm (see figure). Clear photoresponsive behavior is recorded for the as-synthesized GeSe microtubes.



ChemPlusChem
DOI: **10.1002/cplu.201402333**

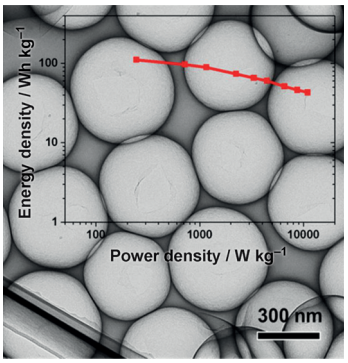


Carbon Materials

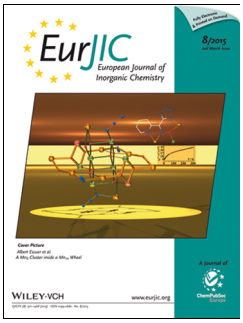
Y. S. Yun, S. Y. Cho, H. Kim, H.-J. Jin,* K. Kang*

Ultra-Thin Hollow Carbon Nanospheres for Pseudocapacitive Sodium-Ion Storage

Thin-skinned: Ultra-thin hollow carbon nanospheres (UTH-CNs) are fabricated as anodes for asymmetric sodium-ion storage pseudocapacitors. The pseudocapacitors based on UTH-CNs and commercially available porous carbon cathodes exhibit the most favorable performance metrics yet reported for asymmetric sodium-ion storage pseudocapacitors.



ChemElectroChem
DOI: **10.1002/celc.201402359**

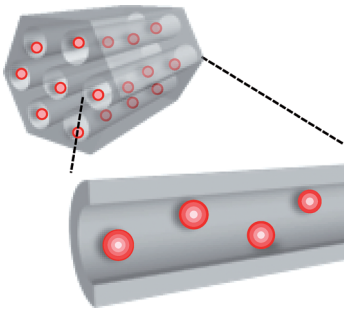


Host–Guest Chemistry

M. Ogawa,* K. Saito, M. Sohmiya

Possible Roles of the Spatial Distribution of Organic Guest Species in Mesoporous Silicas to Control the Properties of the Hybrids

The spatial distribution (location, density, and orientation) of the functional units (guest species) attached/included on/in mesoporous silicas are discussed to highlight the status of the host–guest chemistry of mesoporous silicas.



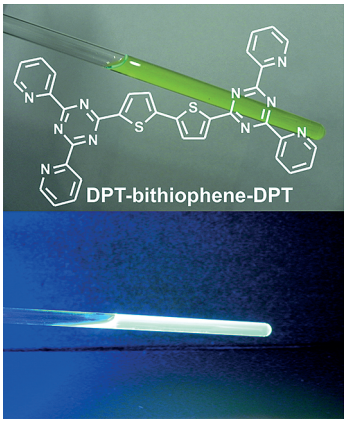
Eur. J. Inorg. Chem.
DOI: **10.1002/ejic.201402651**

Ligand Synthesis

M. F. Geist, D. Chartrand, M. Cibian, F. Zieschang, G. S. Hanan,* D. G. Kurth*

A Facile Route to Bis(pyridyl-1,3,5-triazine) Ligands with Fluorescing Properties

Several bis(pyridyl-1,3,5-triazine) (dpt) ligands are prepared via Stille coupling with yields and scope of application superior to known trimerisation procedures. Ditopic ligands with different spacers are prepared and incorporation of *p*- and *m*-substituted phenyl rings enable access to different isomers. The absorption and emission properties can be tuned using oligothiophene spacers.



Eur. J. Org. Chem.
DOI: **10.1002/ejoc.201403521**

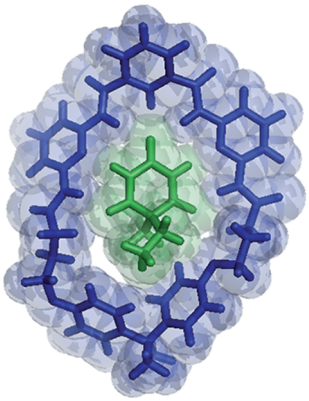
Regioselectivity

C. Schjoeth-Eskesen, P. R. Hansen, A. Kjaer, N. Gillings*

Efficient Regioselective Ring Opening of Activated Aziridine-2-Carboxylates with [^{18}F]Fluoride

Strain relief with ^{18}F: Reaction of activated aziridine-2-carboxylate with nucleophilic [^{18}F]fluoride shows complete regioselectivity at the most substituted carbon atom. Following deprotection, this enabled the efficient radiosynthesis of α-[^{18}F]fluoro-β-alanine with the use of *tert*-butyloxycarbonyl (Boc) or carboxybenzyl (Cbz) as activating groups.

ChemistryOpen
DOI: **10.1002/open.201402081**



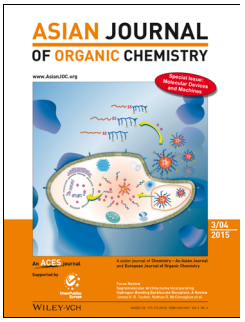
Barbiturate Receptors

A. Tron, M. Rocher, P. J. Thornton, J. H. R. Tucker,* N. D. McClenaghan*

Supramolecular Architectures Incorporating Hydrogen-Bonding Barbiturate Receptors

Good hosts: An overview of Hamilton-type bis(amidopyridine) receptor motifs, which offer strong and selective binding in non-competitive media for barbiturates and cyanurates, leading to a wide range of supramolecular assemblies, is presented. A particular emphasis is placed on photoaddressable systems.

Asian J. Org. Chem.
DOI: **10.1002/ajoc.201402243**



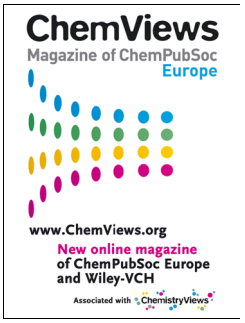
Chemical Societies

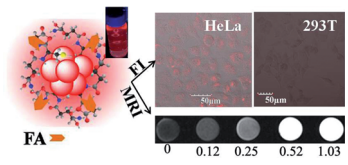
V. Köster

Engaging a New Generation of Chemists

Jan-Willem Toering, the Director of the Koninklijke Nederlandse Chemische Vereniging (KNCV, Royal Netherlands Chemical Society), talked to *ChemViews Magazine* about his goals for the society and the challenges it faces. He points out that chemistry is still a common language and that meeting members in person and trying to connect them matters.

ChemViews magazine
DOI: **10.1002/chemv.201500013**





Clusters

C. Wang,* H. Cheng, Y. Sun, Q. Lin, C. Zhang*

Rapid Sonochemical Synthesis of Luminescent and Paramagnetic Copper Nanoclusters for Bimodal Bioimaging

A rapid sonochemical approach affords red luminescent and paramagnetic Cu nanoclusters (NCs). The resultant CuNCs are stabilized with glutathione and conjugated with folic acid (FA), and display excellent optical and magnetic properties. These versatile features allow the CuNCs to work as promising multifunctional fluorescent imaging/MRI nanoprobes in cancer diagnosis.

ChemNanoMat
DOI: **10.1002/cnma.201500004**