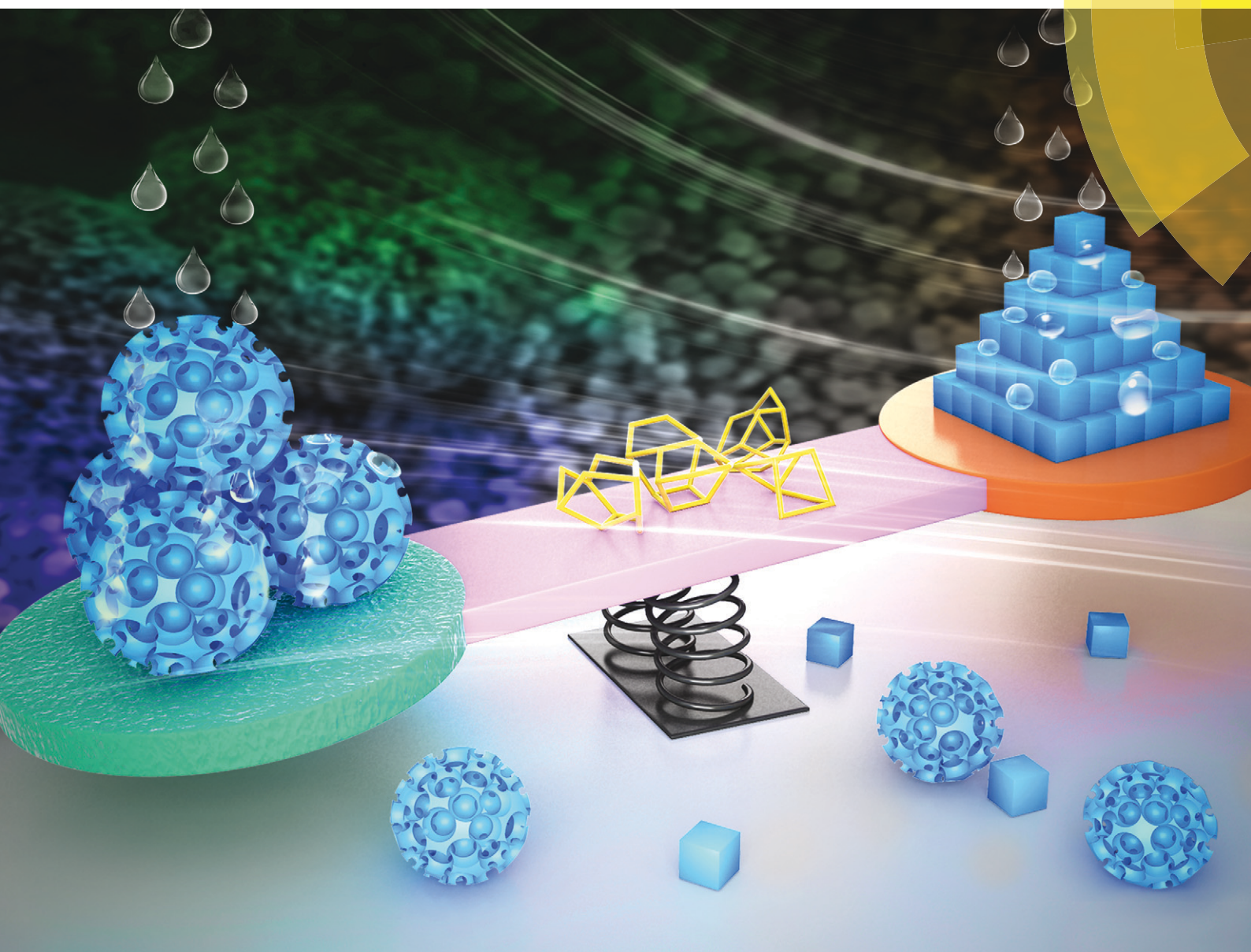


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PAPER

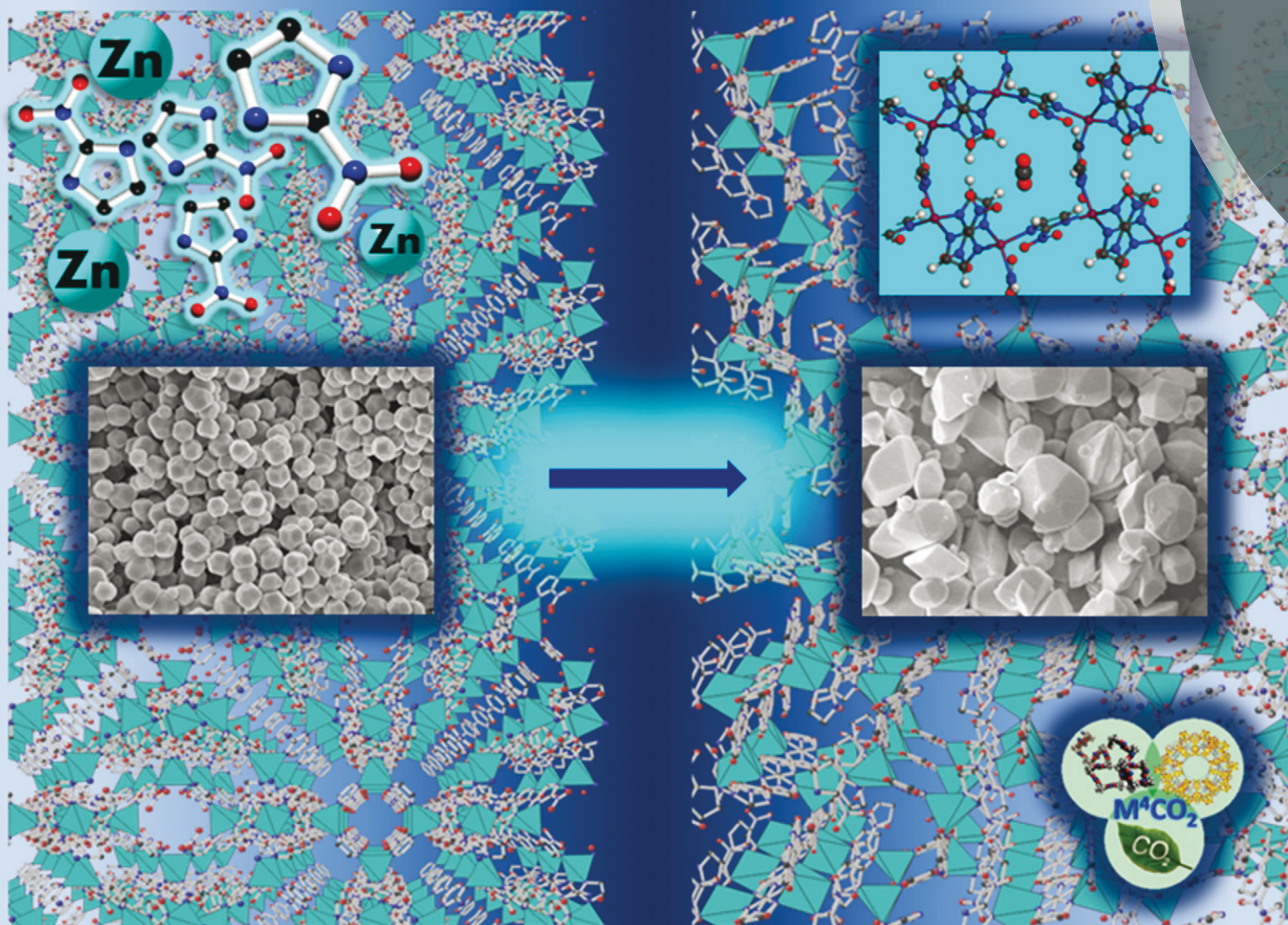
Zile Hua, Jianlin Shi *et al.*

Hydrophilicity/hydrophobicity modulated synthesis of nano-crystalline and hierarchically structured TS-1 zeolites



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Porous zinc and cobalt 2-nitroimidazolate frameworks with six-membered ring windows and a layered cobalt 2-nitroimidazolate polymorph

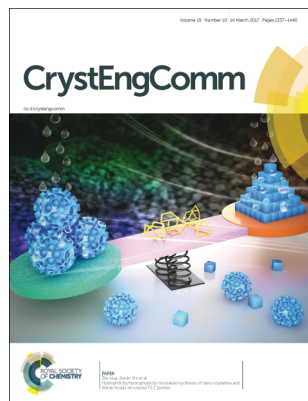
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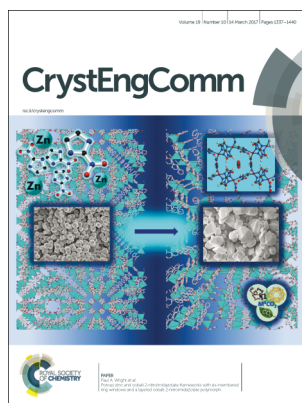
## IN THIS ISSUE

ISSN 1466-8033 CODEN CRECF4 19(10) 1337-1440 (2017)



### Cover

See Zile Hua, Jianlin Shi et al., pp. 1370–1376.  
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### Inside cover

See Paul A. Wright et al., pp. 1377–1388.  
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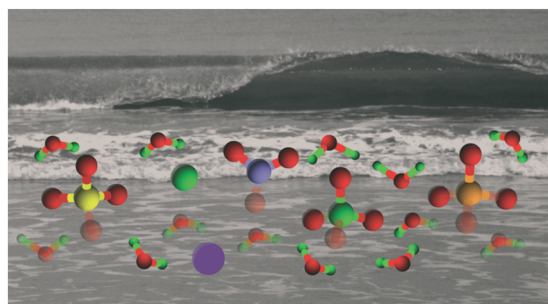
## HIGHLIGHT

1343

### Overview of the strategic approaches for the solid-state recognition of hydrated anions

Md. Najbul Hoque and Gopal Das\*

This review highlights the solid state recognition of hydrated anions an expanding area in the domain of supramolecular chemistry.



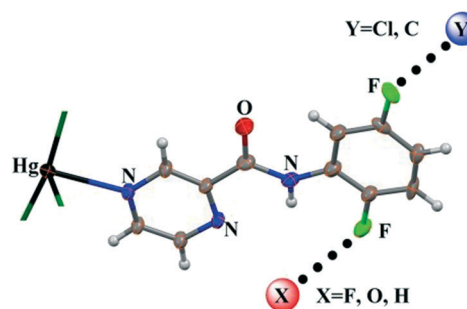
## COMMUNICATIONS

1361

### Are fluorine-based contacts predictable? A case study in three similar coordination compounds

Hamid Reza Khavasi\* and Narjes Rahimi

The crystal structures of three similar Hg(II) complexes including the *N*-(2,5-difluorophenyl)-2-pyrazinecarboxamide ligand were determined by X-ray diffraction. In each structure, the fluorine atoms were involved in different, non-predictable types of fluorine-based contacts.



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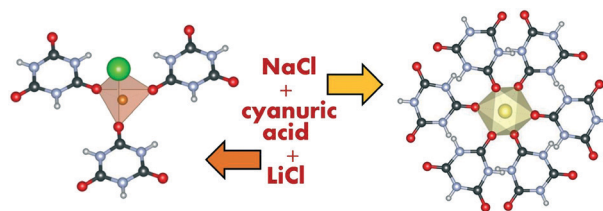
## COMMUNICATIONS

1366

**Anhydrous ionic co-crystals of cyanuric acid with LiCl and NaCl**

Oleksii Shemchuk, Dario Braga, Lucia Maini and Fabrizia Grepioni\*

Anhydrous ionic co-crystals of cyanuric acid (CA) with LiCl and NaCl were synthesized in the solid-state and fully characterized via X-ray powder data. Complete encapsulation of the  $\text{Li}^+\text{Cl}^-$  ion pair by the acid is observed in CA-LiCl; markedly increased dissolution rate and solubility in water with respect to pure CA is observed in CA-NaCl.



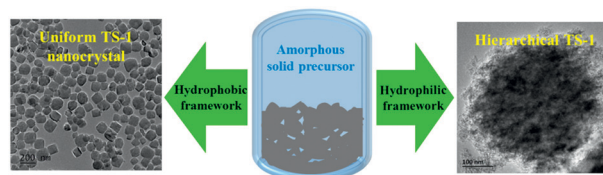
## PAPERS

1370

**Hydrophilicity/hydrophobicity modulated synthesis of nano-crystalline and hierarchically structured TS-1 zeolites**

Tongguang Ge, Zile Hua,\* Jian Lv, Jinling Zhou, Hangle Guo, Jian Zhou and Jianlin Shi\*

A surface-hydrophilicity/hydrophobicity-modulated mechanism for the distinct structural evolution pathway of uniform zeolite nanocrystals and single-crystalline HSZs under identical synthetic conditions.

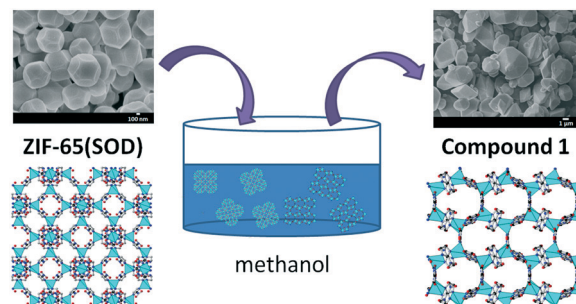


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**Porous zinc and cobalt 2-nitroimidazolate frameworks with six-membered ring windows and a layered cobalt 2-nitroimidazolate polymorph**

A. Orsi, D. J. Price, J. Kahr, R. S. Pillai, S. Sneddon, S. Cao, V. Benoit, M. M. Łozińska, D. B. Cordes, A. M. Z. Slawin, P. L. Llewellyn, I. Casely, S. E. Ashbrook, G. Maurin and P. A. Wright\*

Small pore zinc 2-nitroimidazolate adsorbs  $1.1 \text{ mmol CO}_2 \text{ g}^{-1}$  at 0.1 bar, 25 °C.

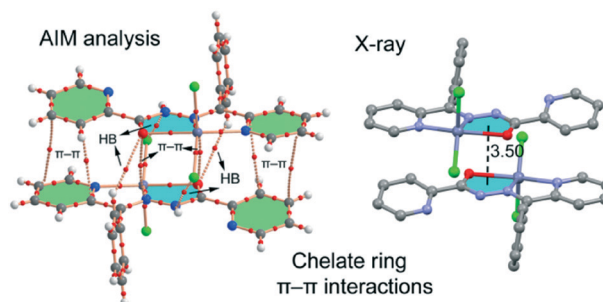


1389

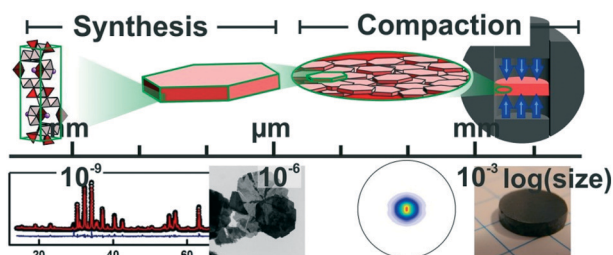
**Chelate ring stacking interactions in the supramolecular assemblies of Zn(II) and Cd(II) coordination compounds: a combined experimental and theoretical study**

F. Akbari Afkhami, A. Akbar Khandar,\* G. Mahmoudi,\* W. Maniukiewicz, A. V. Gurbanov, F. I. Zubkov, O. Şahin, O. Zafer Yesilel and A. Frontera\*

We report seven Zn(II)/Cd(II) complexes with picolinoyl/isonicotinoyl hydrazone based ligands exhibiting relevant chelate- $\pi$  interactions.



1400

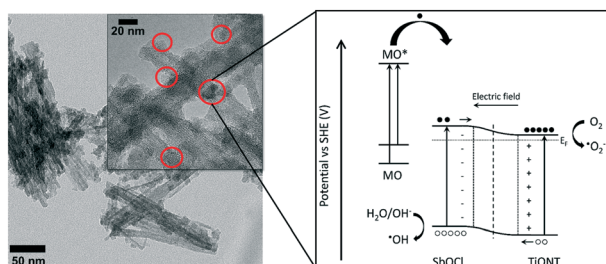


### Enhancement of magnetic properties by spark plasma sintering of hydrothermally synthesised $\text{SrFe}_{12}\text{O}_{19}$

Anna Zink Eikeland, Marian Stingaciu, Cecilia Granados-Mirallas, Matilde Saura-Múzquiz, Henrik Lyder Andersen and Mogens Christensen\*

Nanoplatelets of strontium hexaferrite were synthesised by hydrothermal methods and aligned during compaction producing a high density, highly aligned pellet.

1408

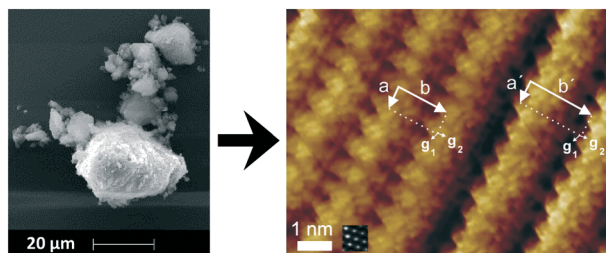


### pH-regulated antimony oxychloride nanoparticle formation on titanium oxide nanostructures: a photocatalytically active heterojunction

Balázs Buchholcz, Henrik Haspel, Tamás Boldizsár, Ákos Kukovecz and Zoltán Kónya\*

Improving the catalytic activity of heterogeneous photocatalysts has become a hot topic recently.

1417

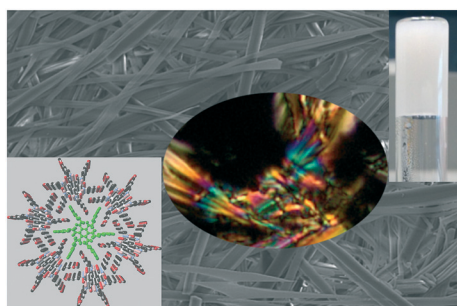


### Growing low-dimensional supramolecular crystals directly from 3D particles

Alexander Eberle, Adrian Nosek, Johannes Büttner, Thomas Markert and Frank Trixler\*

We show that one-dimensional (1D) and two-dimensional (2D) supramolecular crystals can be grown systematically on several substrates under ambient conditions directly from three-dimensional (3D) organic semiconductor crystals.

1427



### Benzene-1,3,5-tricarboxamide *n*-alkyl ester and carboxylic acid derivatives: tuneable structural, morphological and thermal properties

Amy D. Lynes,\* Chris S. Hawes, Edward N. Ward, Benjamin Haffner, Matthias E. Möbius, Kevin Byrne, Wolfgang Schmitt, Robert Pal and Thorfinnur Gunnlaugsson\*

A family of five benzene-1,3,5-tricarboxamide (BTA) derivatives were prepared and their structural, thermal and rheological properties were examined.