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Review

Chemistry and Biology of the Caged *Garcinia* Xanthones

E. A. Theodorakis et al.

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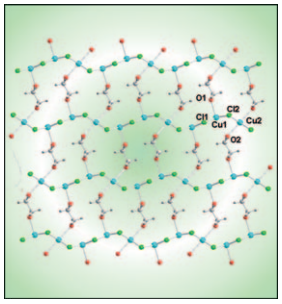
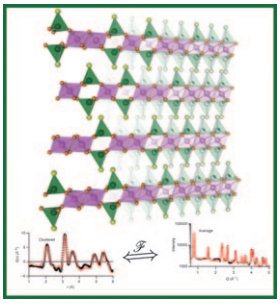
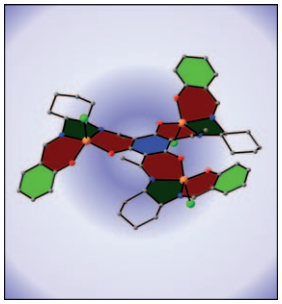
... have been used throughout the years as sources of medicines, pigments, gums, waxes, resins, foodstuffs (fruit), fuel (wood, seed oil), and lumber. For instance, the yellow colorant used on 8th century artifacts from East Asia (as shown in the picture) is presumed to be a watercolor based on gamboge, the pulverized gold-colored resin collected primarily from *Garcinia hanburyi*. In their Review on page 9944 ff., E. A. Theodorakis et al. describe a family of compounds derived from gambogic acid with respect to their structures and biological activities.



Crystal Engineering
A crystal of $CuCl_2(1,4\text{-dioxane})_2(H_2O)_2$ in a hydrogen-bonded three-dimensional framework can be transformed into a crystal composed of layered coordination polymer $Cu_3Cl_6(1,4\text{-dioxane})_2$ by desolvation with changes in the crystal composition, color, structure, and magnetism. For more details, see the Communication by B. Zhang, D. Zhu and Y. Zhang on page 9994 ff.



Materials Science
A traditional unit cell often fails to accurately describe all of the atoms in disordered crystalline materials. In their Full Paper on page 9998 ff., D. E. Morse et al. have observed and summarized various rules regarding the atom positions and occupancies in the α-$Co(OH)_2$ family, as determined by structural analysis at multiple length scales. Their results offer significant new insights into the connectivity and clustering of metal polyhedra within the layers of the solid structure of this family of compounds.



Homogeneous Catalysis
The chiral triplesalen ligand provides three chiral salen ligand compartments in a *meta*-phenylene arrangement by a phloroglucinol backbone. The two diastereomeric versions were used to synthesize the enantiomerically pure chiral iron complexes that are good catalysts for the sulfoxidation of sulfides, providing very good yields and high selectivities. For more details, see the Full Paper by T. Glaser et al. on page 10137 ff.