Synopsis

Crystal engineering in complexes of propane-1,2,3-tricarboxylic acid (H_3tca) with lanthanide(III) cations

Laura Cañadillas-Delgado, Oscar Fabelo, Jorge Pasán, Fernando S. Delgado Maríadel Déniz, Eliezer Sepúlveda, María-Milagros Laz, Miguel Julve and Catalina Ruiz-Pérez*

The knowledge of the supramolecular network of the propane-1,2,3-tricarboxylic acid (H_3tca) [tricarballylic acid (**1**)], induced us to look for new architectures of tca-containing lanthanide(III) cations. Three novel complexes of formulae $[Ln(tca)(H_2O)_3]_n \cdot nH_2O$ with Ln = Gd (**2**) and Eu (**3**), and $[La_2(tca)_2(H_2O)_5]_n \cdot 4nH_2O$ (**4**) have been synthesized and their structures characterized by X-ray diffraction on single crystals.