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Self-Recognition Patterns of Oxalurate in Its Alkali and Alkaline Earth Salts. Different Ribbon Topologies and Polytypes. Milagros Tomás, José Ignacio Peñacoba, Larry R. Falvello, Tatiana Soler, Dept. of Inorganic Chemistry, Univ. of Zaragoza, and Aragón Materials Science Inst., Univ. of Zaragoza - C.S.I.C., Plaza San Francisco s/n, E-50009 Zaragoza, Spain, and Servicios Técnicos de Investigación, Facultad de Ciencias Fase II, 03690 San Vicente de Raspeig, Alicante, Spain, milagros@unizar.es.

Oxalurate is a product of the mutagenic oxidation of DNA, and is formed depending on the conditions under which the oxidation takes place -- such as the presence of Mg(2+) or Ca(2+). Oxalurate is a versatile polyfunctional ligand in coordination chemistry, and presents a rich variety of topologies for metal coordination and for non-covalent interactions with its environment. The oxalurate aqua complexes of Mn(II), Ni(II) and Cu(II) form regularly shaped supramolecular structures, despite the lack of symmetry in the ligand itself. The crystal structures of some oxalurate salts will be presented, displaying different aggregates and packing assemblies of these aggregates. A system which forms two distinct polytypes will also be described.