Abstract

The title complex, [Cu2(C4H5O2)2(C12H8N2)2(H2O)2](NO3)2- 2H2O, contains a dimeric [Cu2(C4H5O2)2(C12H8N2)2-(H2O)2]2+ dication with two five-coordinated CuII ions linked by two methacrylate ions in a syn–syn bridging arrangement. The dication possesses pseudo-twofold rotational symmetry. The pentacoordination of each CuII ion has a distorted squarepyramidal geometry, with two N donors from a phenanthroline ligand and two carboxylate O atoms occupying basal sites and the apical position being occupied by a water molecule. In the crystal packing, molecules are linked to form a three-dimensional framework by O—H O and C—H O hydrogen bonds and – interactions [centroïd–centroïd distances of 3.6039 (15), 3.5301 (15), 3.6015 (15), 3.6496 (15) and 3.6858 (15) Å].

Keyword: single-crystal xray, methacrylate