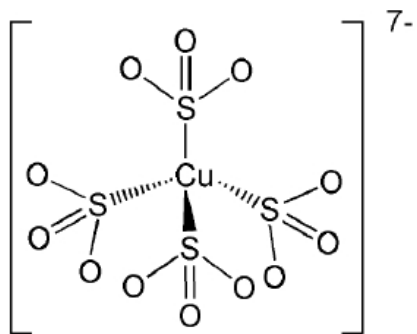


The Tetrasulfitocuprate(I) Anion - A New Building Block for Supramolecular Assemblies

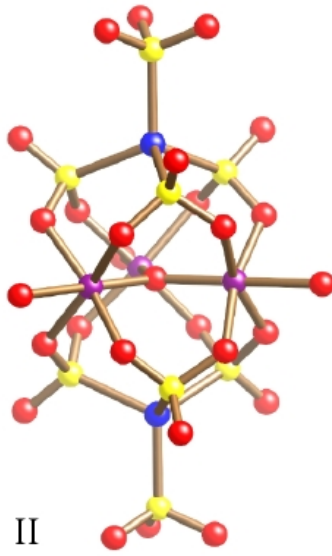
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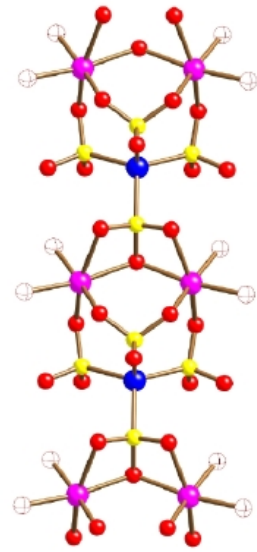
Over the last two decades there has been a trend towards the generation of coordination polymers with ligands of increasing size and sophistication. Although complexes involving simple anions such as carbonate, phosphate, sulfite and sulfate have been extensively studied, we believe that there is considerable scope for the synthesis of new and perhaps useful anionic polymers by linking metal cations with simple anions. In our current work we report the first structures involving the tetrasulfitocuprate(I) anion. In this complex, Cu(I) is coordinated by four sulfite anions through the pyramidal sulfur atoms as shown in I. Single crystal X-ray studies reveal that this highly charged anion, which is able to bind up to 6 metal centres, is a robust, versatile building block which is capable of forming 0-, 1-, 2- and 3-D supramolecular assemblies (II-V) through metal coordination.



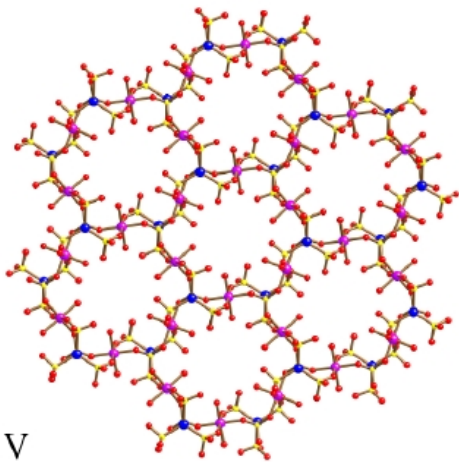
I



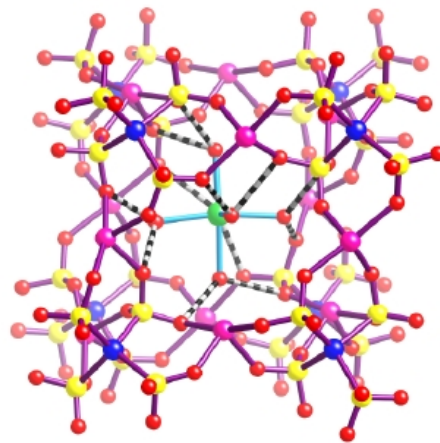
II



III



IV



V