

**X-ray crystallographic studies of sterically strained cyclic oligocarbonate precursors for polymerization**

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**Abstract**

Crystals of the dimeric and trimeric cyclic oligocarbonates of bisphenol A have been prepared by recrystallization from benzene, and these have been examined by X-ray diffractometry. The trimeric oligomer crystals have been shown to include solvate molecules of benzene, and were efflorescent, so that special precautions and measuring conditions were required in order to elucidate the crystal structure. The conformations of the cyclic oligocarbonates are strained, and the release of this steric strain on ring opening combined with a favourable entropic conversion are the proposed motivating factors in the polymerization of these precursors to a linear polycarbonate chain structure.