

Abstract Submitted
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Hollow Rectangular Columnar Structure in Dendritic Supramolecular Assemblies¹ MIHAI PETERCA, PAUL HEINEY, Dept. of Physics, Univ. of Pennsylvania, MARC ILIES, ANDRES DULCEY, SAMI NUMMELIN, VIRGIL PERCEC, Dept. of Chemistry, Univ. of Pennsylvania — Hollow columnar phases have recently attracted interest for their potential applications as channel mimics in membrane transport, as photonic band gap materials, and for selective encapsulation. The first dendritic structures that self-assemble into hollow rectangular phases have been synthesized and a method for their structural analysis by x- ray diffraction experiments has been developed. The structural analysis method developed allows the calculation of the pore separation, shape and size, creating new opportunities for separation processes of symmetric or asymmetric compounds.

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