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# Synthesis of MCM-48 by microwave-hydrothermal process

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**Abstract**

MCM-48 was synthesized using the microwave hydrothermal method. The material was characterized by means of powder XRD, NMR, sorption measurement, SEM and transmission electron microscopy (TEM). XRD, NMR confirm the topology of the silicate framework, TEM shows the periodicity and homogeneity of the MCM-48 frame structure. However, from TEM it is clear that there is structural disorder. Beside MCM-48 a mesoporous wormhole like structure coexists. This is reflected in the lowering of the surface area and pore volume compared to the conventional, hydrothermally prepared MCM-48 material. ***To cite this article: M. Bandyopadhyay and H. Gies, C. R. Chimie 8 (2005)***.