Green Method of Preparation for Phenol Formaldehyde Foams under Microwave Irradiation

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The production of phenol-formaldehyde foams under classical conditions is a long and labour-consuming process. Phenol-formaldehyde foams containing various fillers can be synthesized within 3-5 minutes under microwave activation. Currently this is the fastest and most energy-efficient way to produce the material.

The use of a microwave reactor allowed to synthesize phenol-formaldehyde foams without any fillers within 3-5 minutes, as well as to include copper, zinc, cobalt, lanthanum and other metals’ phthalocyanines into the material in order to give it catalytic properties.

References