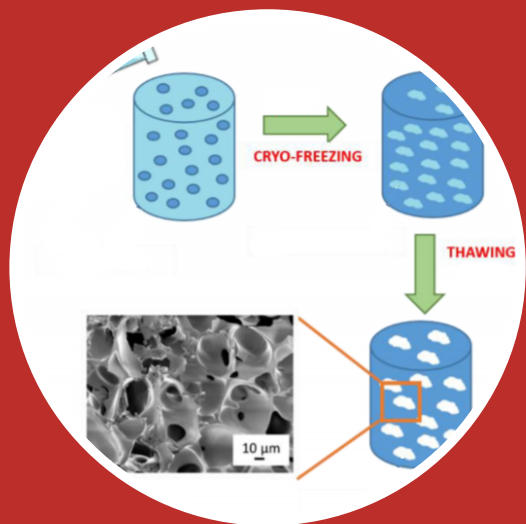


CRYOGEL FOR THE REMOVAL OF TOXIC CONTAMINANTS

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This invention concerns the synthesis of a novel adsorbent material having outstanding performance in terms of Arsenic removal and that could be employed in developing new filtration systems for water purification from Arsenic pollutant.

Protection: International

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INVENTION

The invention regards a macroporous polymeric material containing N-methyl-D-glucamine moieties previously proposed as Arsenic absorber. The innovation of the invention is related to the polymerization process carried out lower temperatures with respect conventional methods. This procedure involves the solvent crystal formation acting as porogens during the polymerization process. The further heating of the mixture promote the solvent melting and the formation of a sponge-like structure characterized by a **high porosity**, **mechanical stability** as well as **arsenic absorption properties**.

ADVANTAGES

- environmentally sustainable polymerization;
- greater efficiency;
- greater sequestering speed.

APPLICATIONS

- new filtering systems for the purification of drinking water;
- treatment of industrial wastewater.

CONTACTS

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