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Functionalization of mesoporous carbons for heavy metal ion extractions

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Technology Summary

Grafting of different monomers onto the pores of mesoporous carbons with the use of a particular method is used to prepare an effective sorbent material for heavy metal ions extractions. This method proved to be very effective in avoiding the pore blockage, often observed for free radical polymerization, which leads to poor adsorbent performance. This general approach is easily applicable to wide range of monomers and carbons with different porosity, what makes it attractive for the preparation of custom design adsorbents not only for heavy metal ions but also for other strategic materials such as transition metals, lanthanides and uranium.

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