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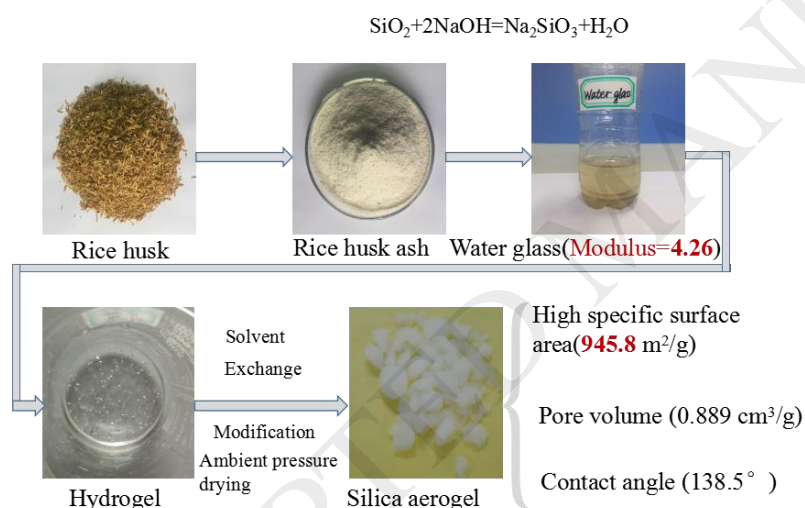
Synthesis of high specific surface area silica aerogel from rice husk ash via ambient pressure drying

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Graphical abstract:



Abstract:

In this study, silica aerogel was synthesized from rice husk ash-derived water glass through ion-exchange, sol-gel, solvent exchange and ambient pressure drying. The physical and chemical properties of silica aerogel were fully characterized by the Brunauer–Emmett–Teller theory (BET), Field emission scanning electron microscopy (FESEM), Thermogravimetric analysis-differential thermal analysis (TGA-DTA), Fourier transform infrared spectroscopy (FTIR). The effects of processing parameters, especially, the modulus of water glass on the characteristics of the products are deeply investigated. It is found that the

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