

**Carbon aerogels, process for their preparation and their
use**

Abstract

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The invention relates to carbon aerogels with particle sizes less than 1 μm . The carbon aerogels are prepared by (A) reacting a mono- and/or polyhydroxybenzene, an aldehyde and a catalyst in a reactor at a reaction temperature T in the range from 75 - 200°C at a pressure of 80 - 2400 kPa, (B) then spraying the reaction mixture from process step (A) into an acid, (C) drying the resulting product from process step (B) and (D) carbonizing it. The carbon aerogels according to the invention can be used as filler, reinforcing filler, UV stabilizer, electrode material, sound absorbents, thermal insulating material, catalyst, catalyst support, conductivity additive, absorbent for gas and/or liquid preparation or pigment.

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