

Supporting Information

High density hydrogen storage in superactivated carbons from hydrothermally carbonized renewable organic materials

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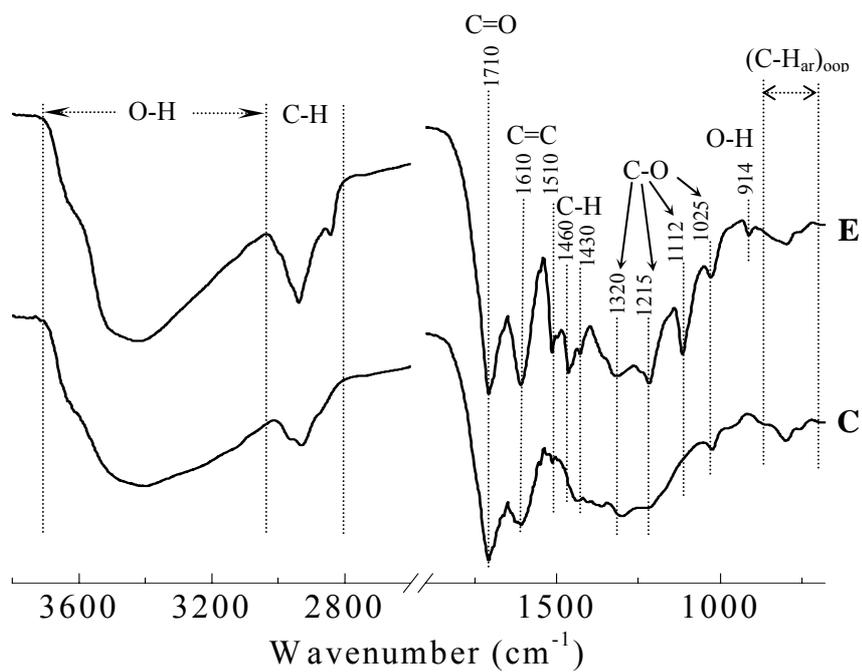


Figure S1. FTIR spectra of the cellulose (C) and eucalyptus sawdust (E) derived hydrochars..

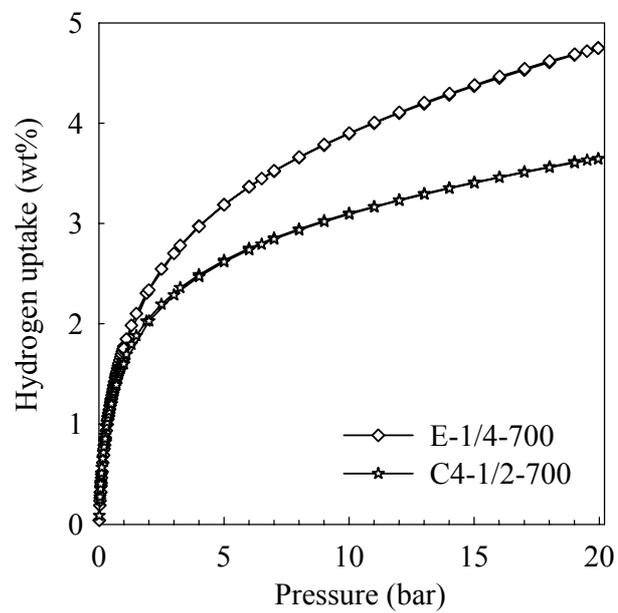


Figure S2. Hydrogen uptake isotherms at -186°C of activated carbons E-1/4-700 and C4-1/2-700.

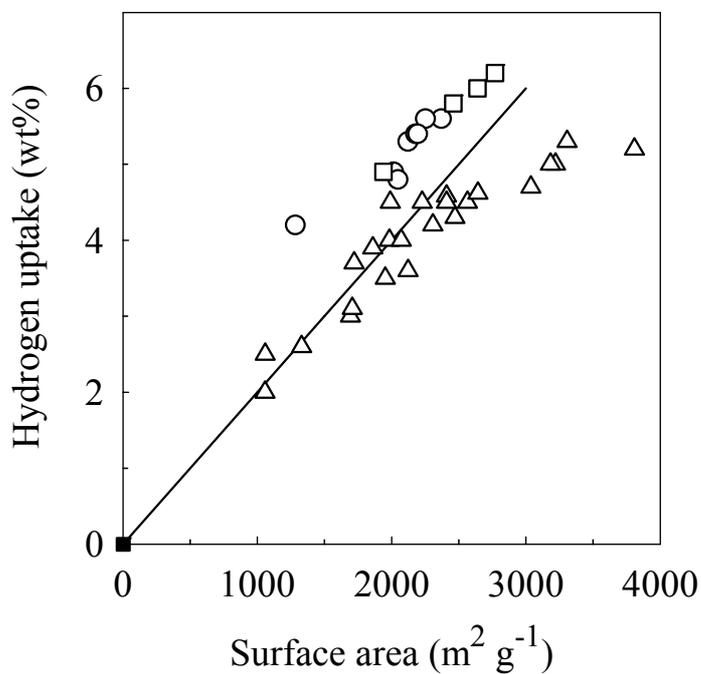


Figure S3. Correlation between hydrogen uptake capacity (at -196°C and 20 bar) and surface area for the activated carbons reported in this work (○), KOH activated CDCs (□) [36] and other activated carbons found in the literature (Δ) [31, 34, 37, 39]. The solid line corresponds to the Chahine rule.

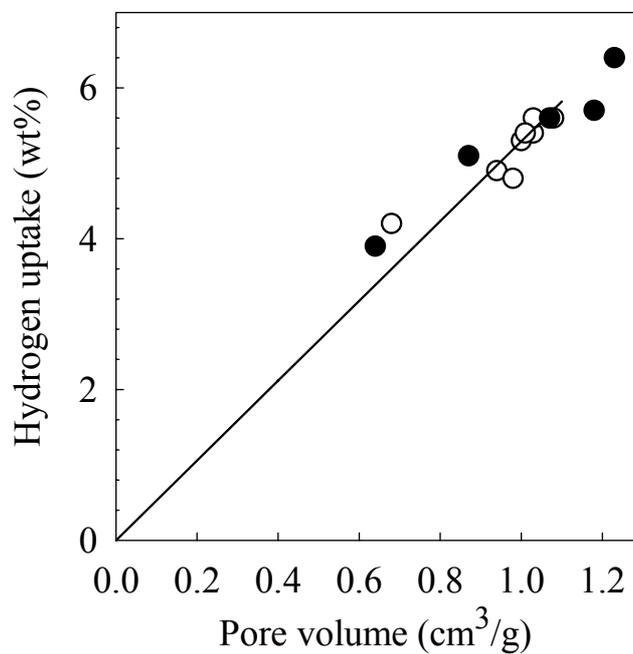


Figure S4. Correlation between hydrogen uptake capacity and the total pore volume of activated (○) and doubly activated (●) carbons. The solid line corresponds to the fitting of the experimental points to a line passing through the origin.