Supporting Information

Bottom-up synthesis of de-functionalized and dispersible carbon spheres as colloidal adsorbent

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5 Figures

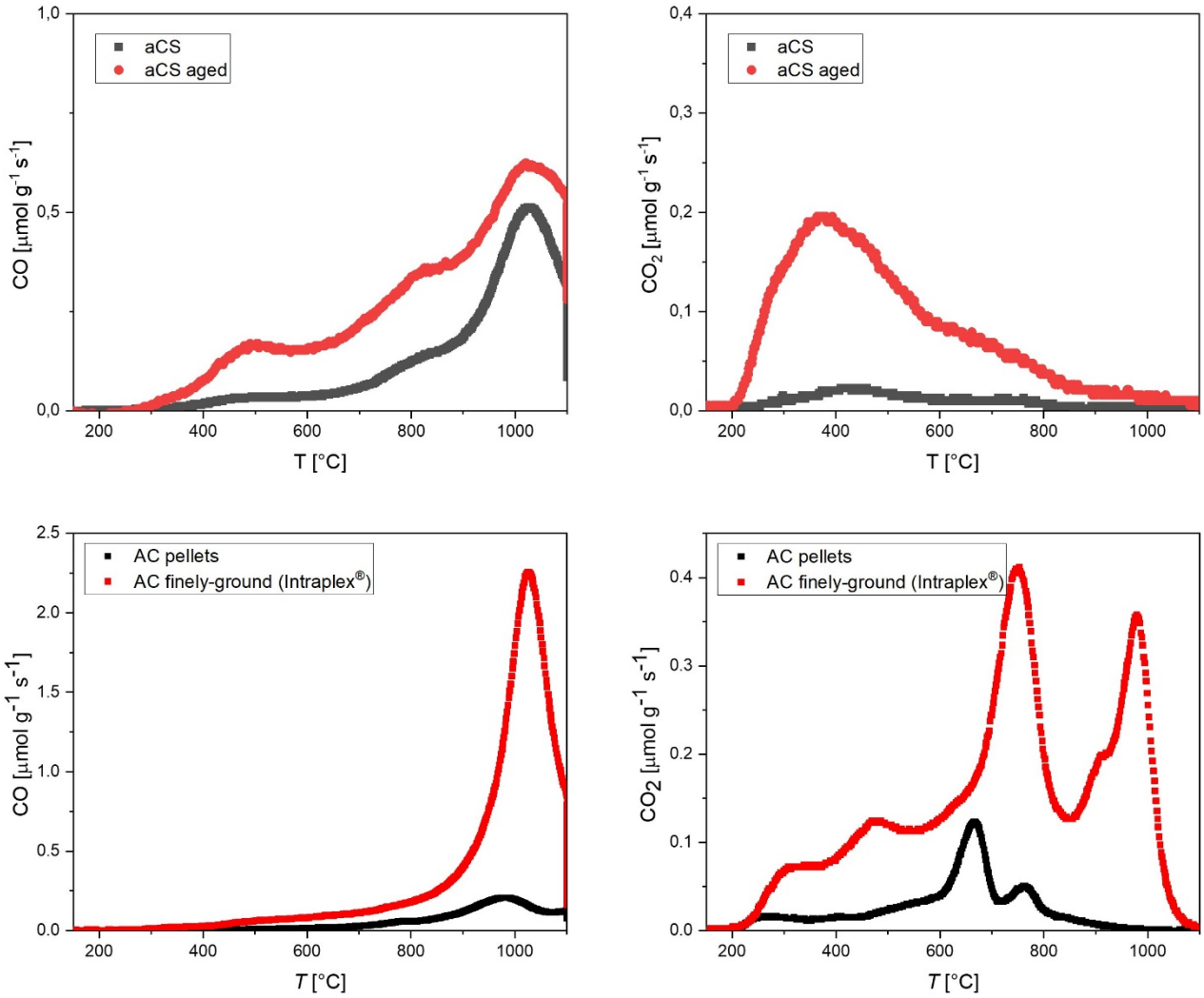

Figure S1. Temperature-programmed decomposition (TPD) up to 1100 °C (10 K min^{-1}) of activated carbon spheres (aCS) compared with aCS aged (top) and a commercial activated carbon (AC) sample Intraplex® obtained by a wet-milling process ("AC finely-ground") compared with the respective precursor material in pellet-form ("AC pellets")

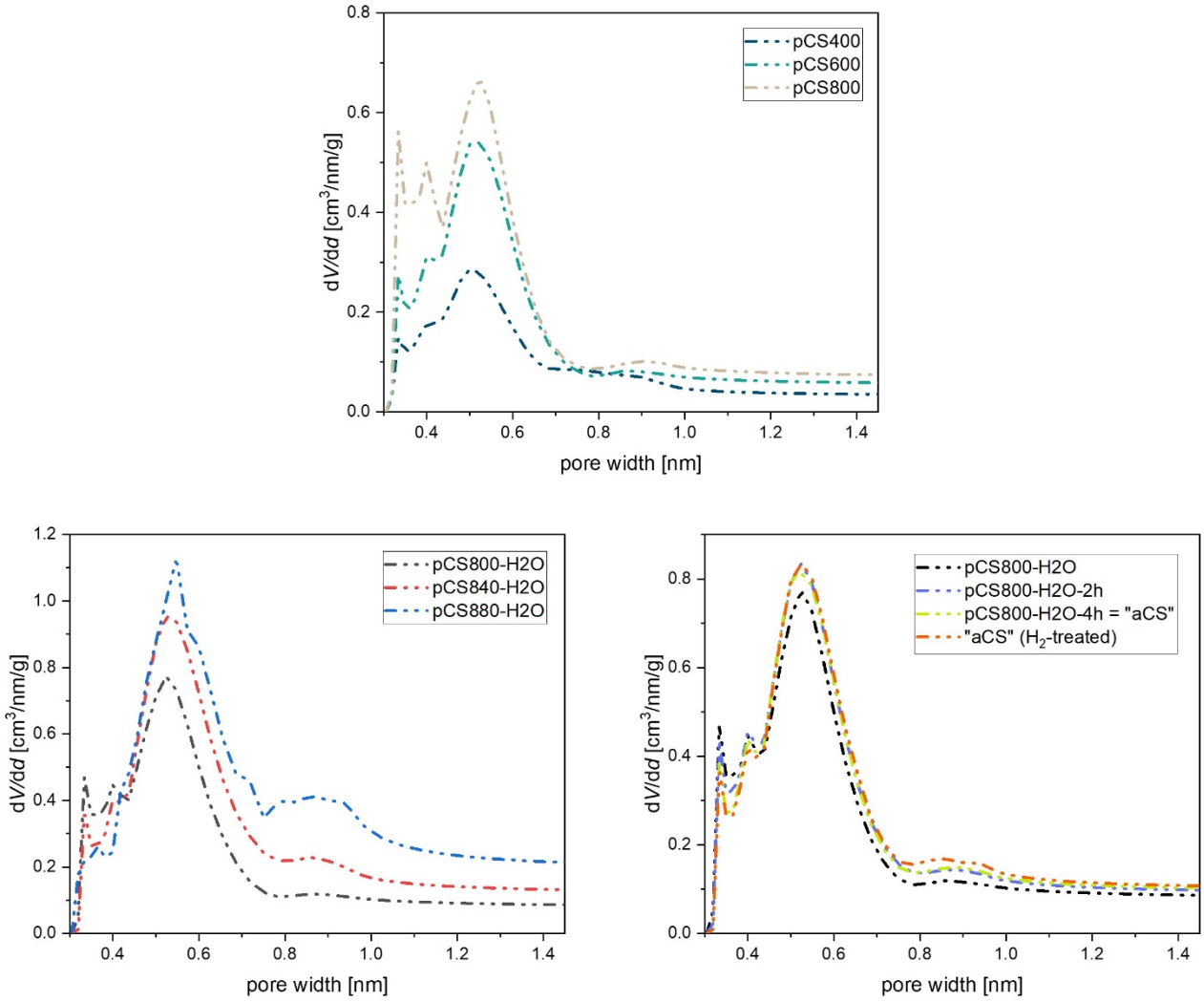

Figure S2. Pore size distributions for all pyrolyzed and activated CS samples determined with NLDFT based on CO_2 ad- and desorption (isotherms measured up to $p/p_0 = 0.0287$ equals to $p = 0.1$ MPa).

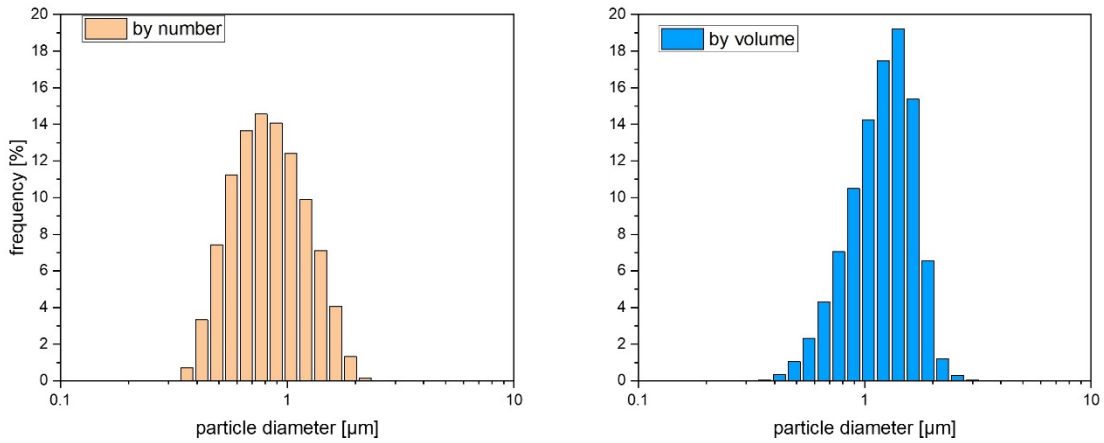

Figure S3. Differential particle size distribution by number and by volume determined *via* dynamic light scattering (DLS) analysis of 5 mg L^{-1} aCS particles dispersed in 10 mM KNO_3 solution at pH = 6.

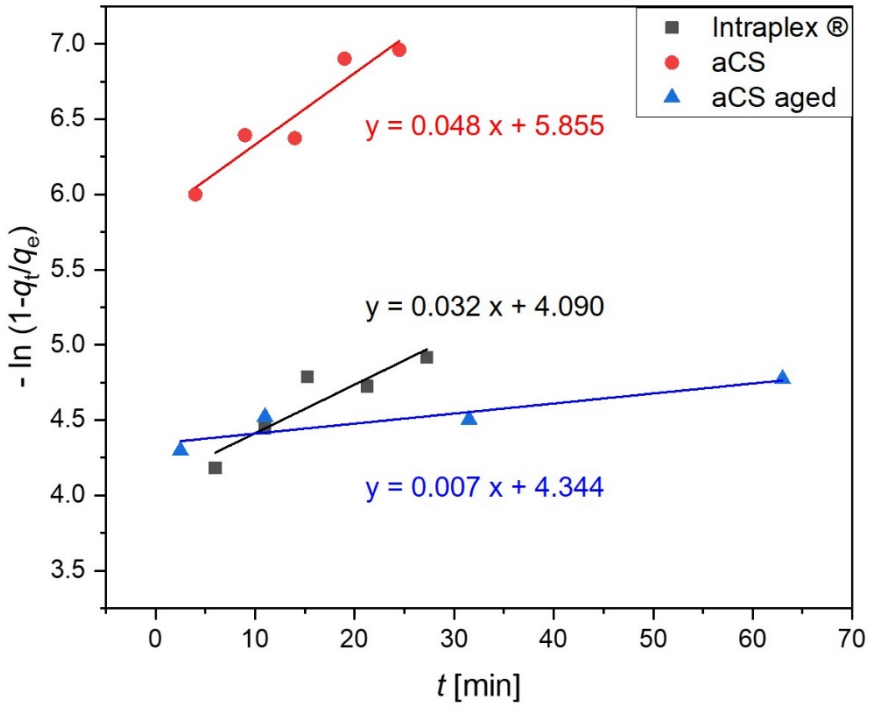

Figure S4. Linear fitting of the kinetic data of the monochlorobenzene (MCB) adsorption according to Equation 5 for estimation of the late stage adsorption rates of MCB on the different activated carbon samples.

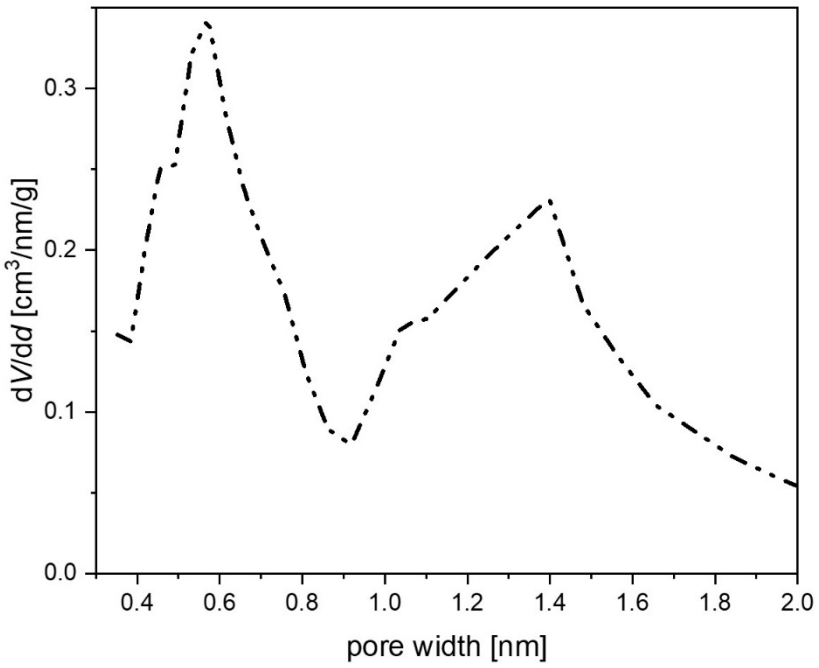

Figure S5. Pore size distribution of the AC Intraplex® determined with NLDFT based on CO_2 adsorption (up to $p/p_0 = 1$, with $p_0 = 3.4851$ MPa).