

Size-Selective pH-Operated Megagates on Mesoporous Silica Materials

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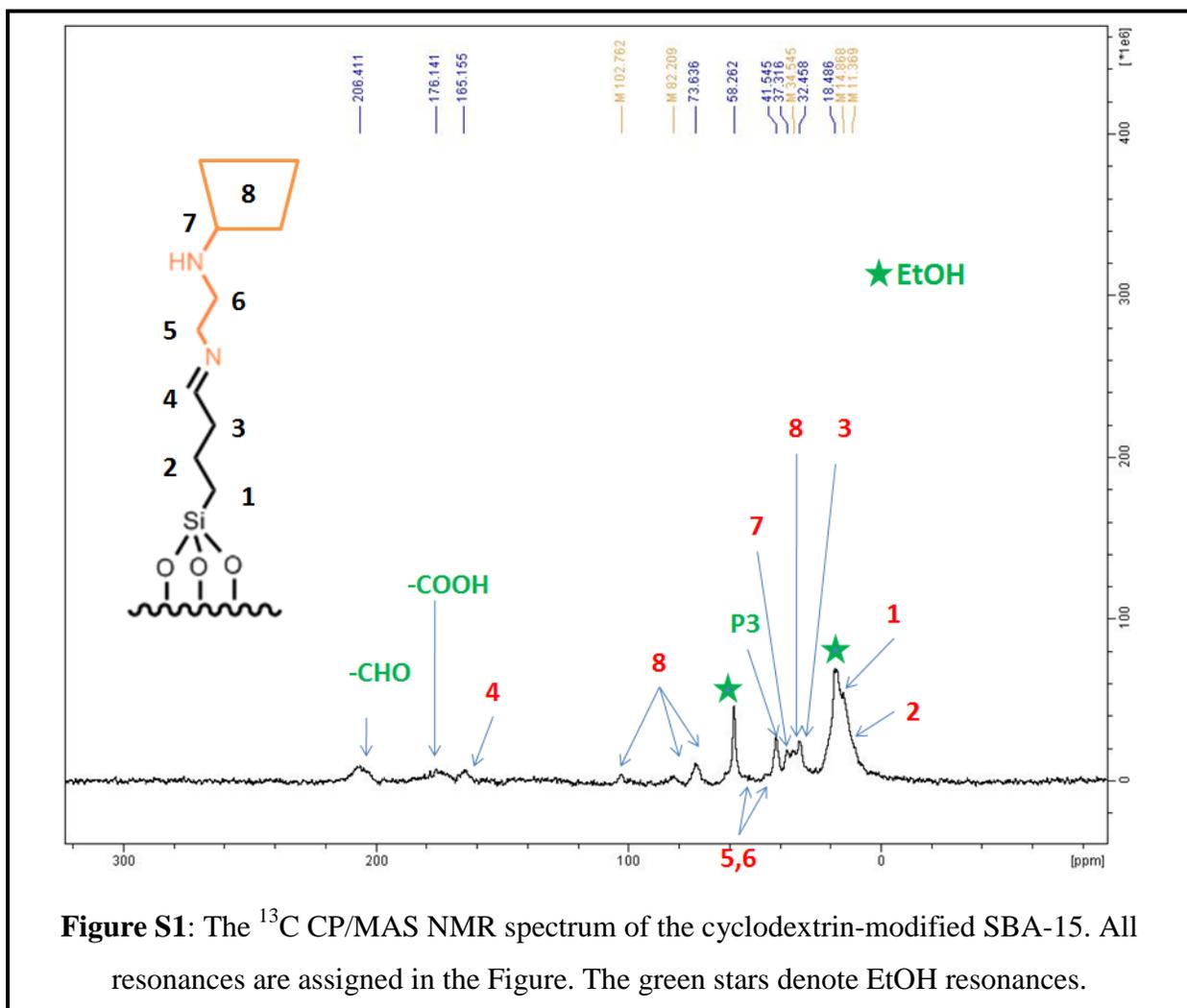
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SUPPORTING INFORMATION

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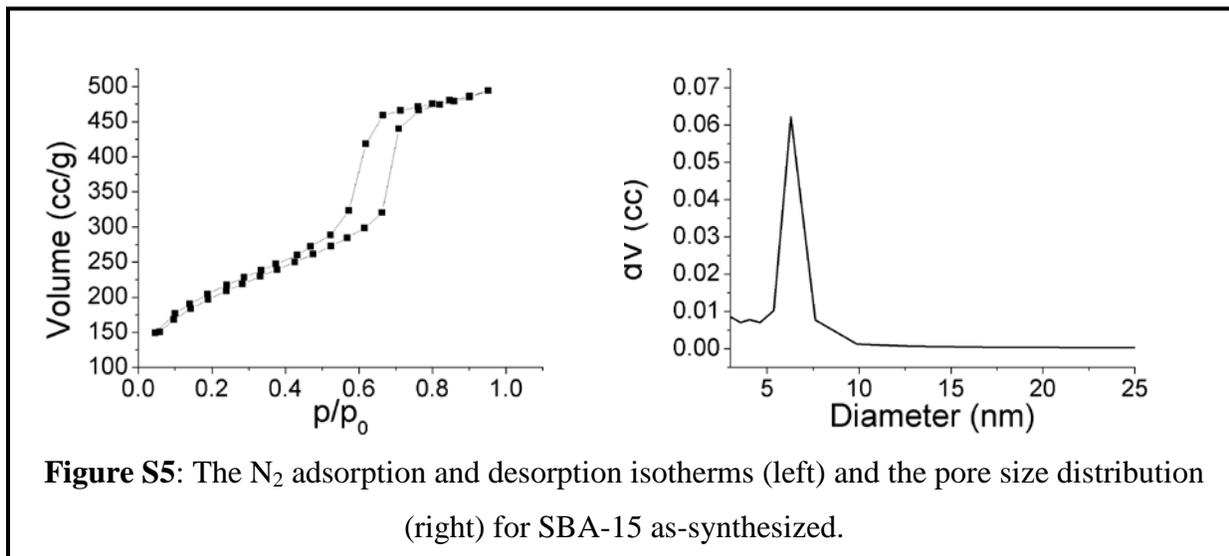
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S1. ^{13}C CP/MAS NMR Spectrum of modified SBA-15



The ^{13}C CP/MAS NMR spectrum of the cyclodextrin-modified SBA-15 confirms that imine formation between 6-(2-aminoethyl)amino-6-deoxy- β -cyclodextrin and SBA-15 took place successfully. The resonances at ~ 210 ppm can be assigned to unreacted aldehyde residues. The resonances at ~ 180 ppm can be assigned to carboxylic acids that are a product of the oxidation of the unreacted aldehydes. The proton α to the unreacted aldehyde, P3, resonates at ~ 40 ppm.

S2. N₂ Adsorption Isotherm of SBA-15



The distribution of pore sizes was determined from N₂ adsorption-desorption experiments. The relatively uniform pore sizes ensure that the majority of the pores are functional and able to uptake the large dextran cargo molecules.