Electronic Supplementary Information

Pore size control and organocatalytic properties of nanostructured silica hybrid materials containing amino and ammonium groups

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Summary

Photos 1-6: SEM-image of materials A16A18, 1/5 and 1/10  

Figure 1: Nitrogen adsorption-desorption isotherms of materials A12, A14, 1/5, 1/20 and 1/40.  

Figure 2: Pore-pore distance in the materials vs. molar mesitylene/precursor 1 ratio in the hydrolysis condensation mixture  

Figure 3: $^{29}$Si CP-MAS solid state NMR spectrum of material A16A18 after 5 successive Henry reaction cycles  

Figure 4: $^{13}$C CP-MAS solid state NMR spectrum of material A16A18 after 5 successive Henry reaction cycles  

Figure 5: $^{29}$Si CP-MAS solid state NMR spectrum of material A16A18 after 4 successive ring opening reaction cycles  

Figure 6: $^{13}$C CP-MAS solid state NMR spectrum of material A16A18 after 4 successive ring opening reaction cycles  

Figure 7: $^{29}$Si CP-MAS solid state NMR spectrum of material A16A18-p after 4 successive ring opening reaction cycles  

Figure 8: $^{13}$C CP-MAS solid state NMR spectrum of material A16A18-p after 4 successive ring opening reaction cycles  

Figure 9: X-ray diffractogram of material A16A18 after 5 successive ring opening reaction cycles  

Figure 10: X-ray diffractogram of material A16A18-p after 4 successive ring opening reaction cycles  

Table 1: Elemental analysis of material A16A18-p before and after use in ring opening reaction  

Figure 11: Nitrogen adsorption-desorption isotherms of material A16A18-p before and after four reaction cycles in ring opening reaction of glycidol
Photos 1-6: SEM-image of materials A16A18, 1/5 and 1/10
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Solid state NMR spectra of the materials after use in Henry reactions

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Figure 4: $^{13}$C CP-MAS solid state NMR spectrum of material A$_{16}$A$_{18}$ after 5 successive Henry reaction cycles
Solid state NMR spectra of the materials after use in ring opening reaction of glycidol with lauric acid

**Figure 5:** $^{29}$Si CP-MAS solid state NMR spectrum of material A16A18 after 5 successive ring opening reaction cycles.

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**Figure 7:** $^{29}$Si CP-MAS solid state NMR spectrum of material A16A18-p after 5 successive ring opening reaction cycles.

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Table 1: Elemental analysis of material A16A18-p before and after use in ring opening reaction

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**Figure 11**: Nitrogen adsorption-desorption isotherms of material A16A18-p before and after four reaction cycles in ring opening reaction of glycidol