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Space-confined Click Reactions in Hierarchically Organized Silica Monoliths

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Electronic Supplementary Information

Click-modified porous silica monoliths

Table 1: Wavenumbers with corresponding vibrations for the click-modified mesoporous silica

wavenumber [cm^{-1}]	**vibration**
2101	ν_{as}(azide)
1749	ν(CH_3-CO-O-R)
1718	ν(COOH)
1367	ν(CH_3-CO-O-R)
1047	ν_{as}(Si-O-Si)
788	ν_{s}(Si-O-Si)
761	ν(C_6H_5-R)
629	ν(C_6H_5-R)

Table 2: Results of elemental analysis of click-modified mesoporous silica

sample	C [%]	H [%]	N [%]	functional groups [nm^{-2}][a]
3,0 mmol CMTMS, phenylacetylene	16,47	2,86	3,34	
3,0 mmol CMTMS, propiolic acid	8,64	2,39	2,36	
3,0 mmol CMTMS, glycoside	9,26	2,47	2,52	
4,5 mmol CMTMS, phenylacetylene	8,48	2,08	4,50	
4,5 mmol CMTMS, propiolic acid	10,21	2,68	4,58	
4,5 mmol CMTMS, glycoside	12,55	3,08	4,32	
6,0 mmol CMTMS, phenylacetylene	11,93	2,20	5,92	
6,0 mmol CMTMS, propiolic acid	10,07	2,09	5,95	
6,0 mmol CMTMS, glycoside	16,39	2,78	4,88	
3,0 mmol CPES, phenylacetylene	17,57	3,41	4,30	1,06
3,0 mmol CPES, propiolic acid	13,08	2,61	4,44	0,88
3,0 mmol CPES, glycoside	22,06	3,34	3,36	1,09

[a] Calculated by $\frac{m_N[g] \times N_A}{M_N[g/mol] \times 3 \times 100[g] \times S_{BET}[m^2 g^{-1}] \times 10^{18}}$ assuming that the reaction is complete