

Electronic Supplementary Information – Table S1. Materials characteristics comparative

Material	Zeolites (faujasite)	Silica aerogel monolith	Silica xerogel monolith	Silica aerogel-like nanoparticles	Stöber's silica nanoparticles
Type of matrix	Traditional used matrix	Monolithic matrix proposed in this work	Traditional monolithic matrix	Particulate matrix proposed in this work	Traditional particulate matrix
Appearance					
Transparency	Opaque	Very transparent	Less transparent	Transparent to UV	Transparent to UV
Density (gcm^{-3}) for monoliths	0.05 cm^3g^{-1}	0.11 gcm^{-3}	1.12 gcm^{-3}	0.09 cm^3g^{-1}	0.06 cm^3g^{-1}
Pore volume (cm^3g^{-1}) for particles (BET)					
Diffusional restrictions for reagents to be catalyzed	Yes	No	Yes	Yes	Yes
Preparation/drying	Natural- commercial Dehydration 12 h	Supercritical drying 6 h	Conventional solvent evaporation 2 months	Supercritical drying 8 h	Conventional 21 h (several washing steps)
Activation	Activation at 500 °C for 48h under N_2 flow. Acidification (Na^+ -to- NH_4^+) followed by a steam calcination at 500 °C during 24 h.	Not applied	Not applied	Not applied	Not applied
Particle size distribution	Heterogeneous sizes	Not applied	not applied	Monodisperse particles, narrow particle size distribution	Less monodisperse particles, wider particle size distribution