Electronic Supplementary Information

New approach to hydrosilylation reaction in ionic liquids as solvent in microreactor system

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Figure S1. Correlation of the viscosity vs. sheare rate for all tested ILs at 100°C; All experiments were performer at the process temperature of 100 °C using rheometer equipped with the plate-plate geometry (40mm, 0° geometry) with continuous ramp of the shear rate from 100 to 1000 [1/s].
Figure S2. Correlation of the shear stress vs shear rate for all tested ILs at 100°C
Figure S3. Correlation of the viscosity and shear stress vs shear rate for \([P_{4441}][MeSO_4]\) (1) at 100°C
Figure S4. Correlation of the viscosity and shear stress vs shear rate for \([P_{4441}][\text{NTf}_2]\) \((3)\) at \(100^\circ\text{C}\)
Figure S5. Correlation of the viscosity and shear stress vs shear rate for \([P_{8888}][NTf_2]\) (4) at 100°C
Figure S6. Correlation of the viscosity and shear stress vs shear rate for $[P_{4444}]^+\text{[NTf}_2^-]$ (S) at 100°C.
Figure S7. Correlation of the viscosity and shear stress vs shear rate for [S_{2222}][NTf_2] (6) at 100°C
Figure S8. Correlation of the viscosity and shear stress vs shear rate for [BMMIM][NTf₂] (7) at 100°C
Figure S9. GC chromatograms of post reaction mixture obtained from A batch reaction using [BMMIM][NTf$_2$] (7) as solvent for catalyst, B- reaction in microreactor using [BMMIM][NTf$_2$] (7) as solvent for catalyst; retention times 1.5-2.0 min – substrates (1-octene, HMTS), 6.4 min – decane (internal standard), 11.7 min – product (octyloheptamethyltrisiloxane)
Figure S10. GC-MS chromatogram of octylheptamethyltrisiloxane obtained from batch reaction using [BMIM][NTf₂] (7) as solvent for catalyst; 1- TIC chromatogram, 2- 319M/z chromatogram

Figure S11. MS spectra of octylheptamethyltrisiloxane (product) at the retention time 11.38 min obtained from batch reaction using [BMIM][NTf₂] (7) as solvent for catalyst
Figure S12. GC-MS chromatogram of octyloheptamethyltrisiloxane obtained from reaction using [BMMIM][NTf$_2$] (7) as solvent for catalyst in microreactor systems; 1- TIC chromatogram, 2- 319M/z chromatogram

Figure S13. MS spectra of octylheptamethyltrisiloxane (product) at the retention time 11.38 min obtained from reaction using [BMMIM][NTf$_2$] (7) as solvent for catalyst in microreactor systems
Figure S14. Proposed fragmentation of MS spectra of octylheptamethyldisiloxane as observed for the peak from GC-MS measurements at the retention time 11.38 min.