Supplementary Materials:

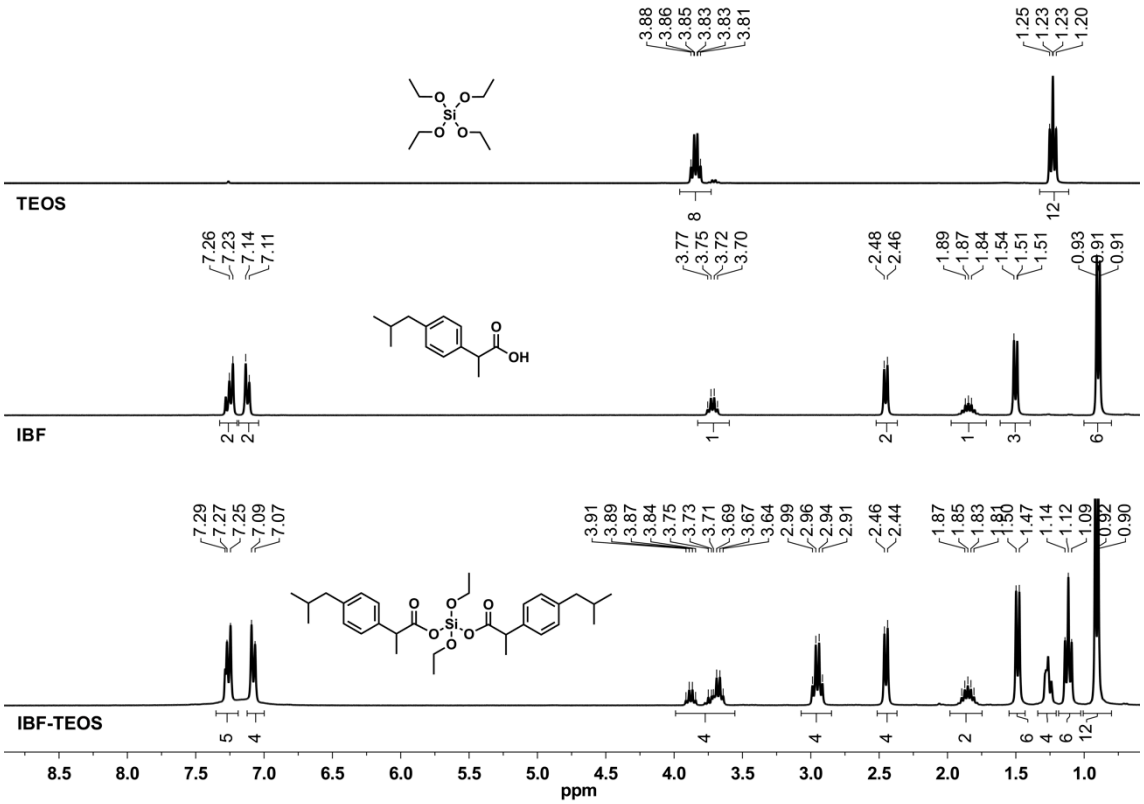

Figure S1. ^{1}H NMR spectra of tetraethyl orthosilicate (TEOS), ibuprofen (IBF) and the silicon precursor IBF-TEOS in $CDCl_3$.

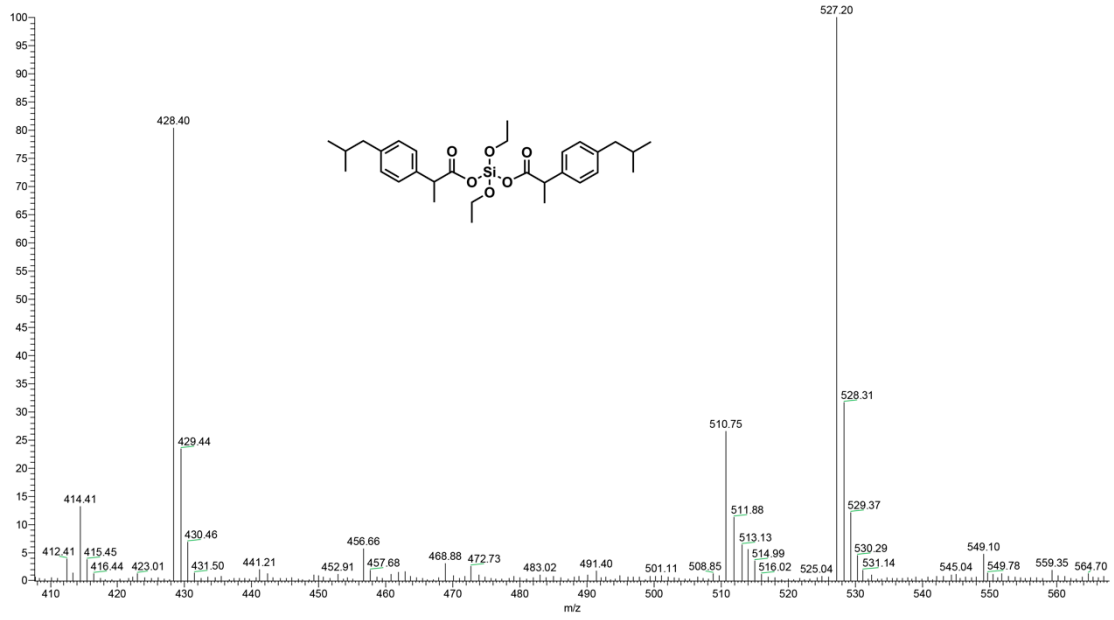

Figure S2. ESI-MS spectrum of IBF-TEOS.

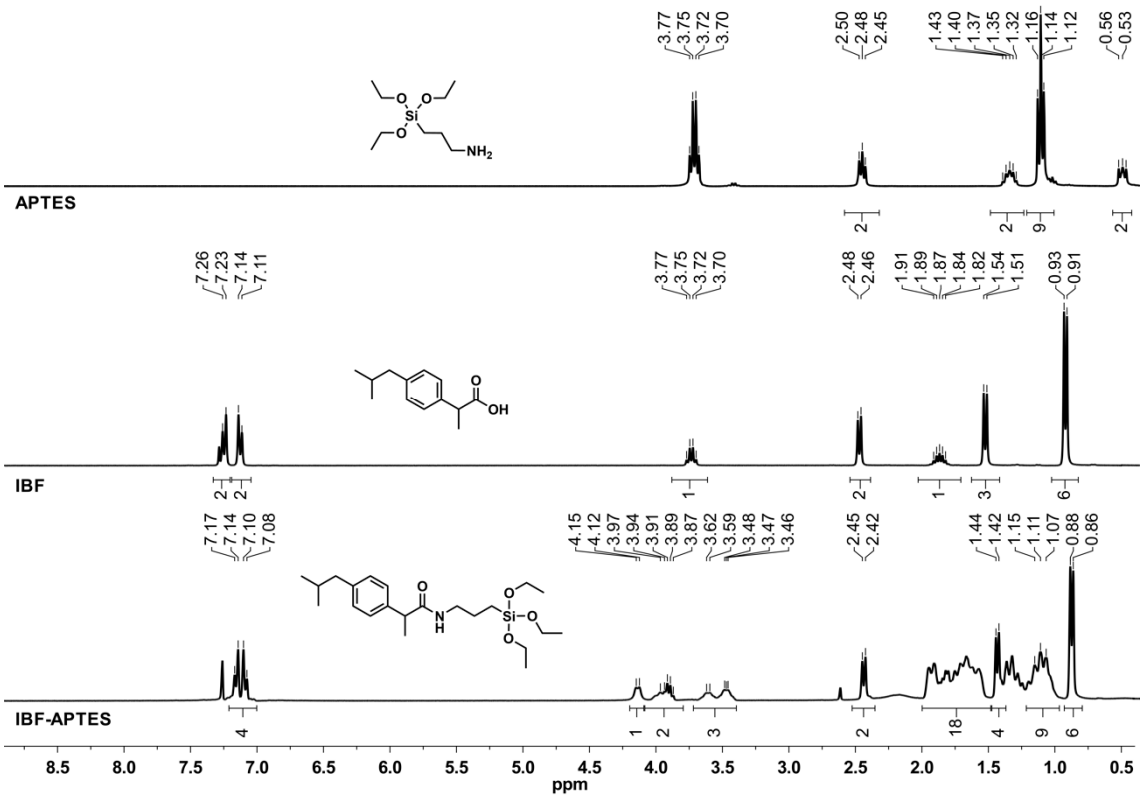

Figure S3. ^{1}H NMR spectra of (3-aminopropyl) triethoxysilane (APTES), ibuprofen (IBF) and the silicon precursor IBF-APTES in DMSO-*d6*.

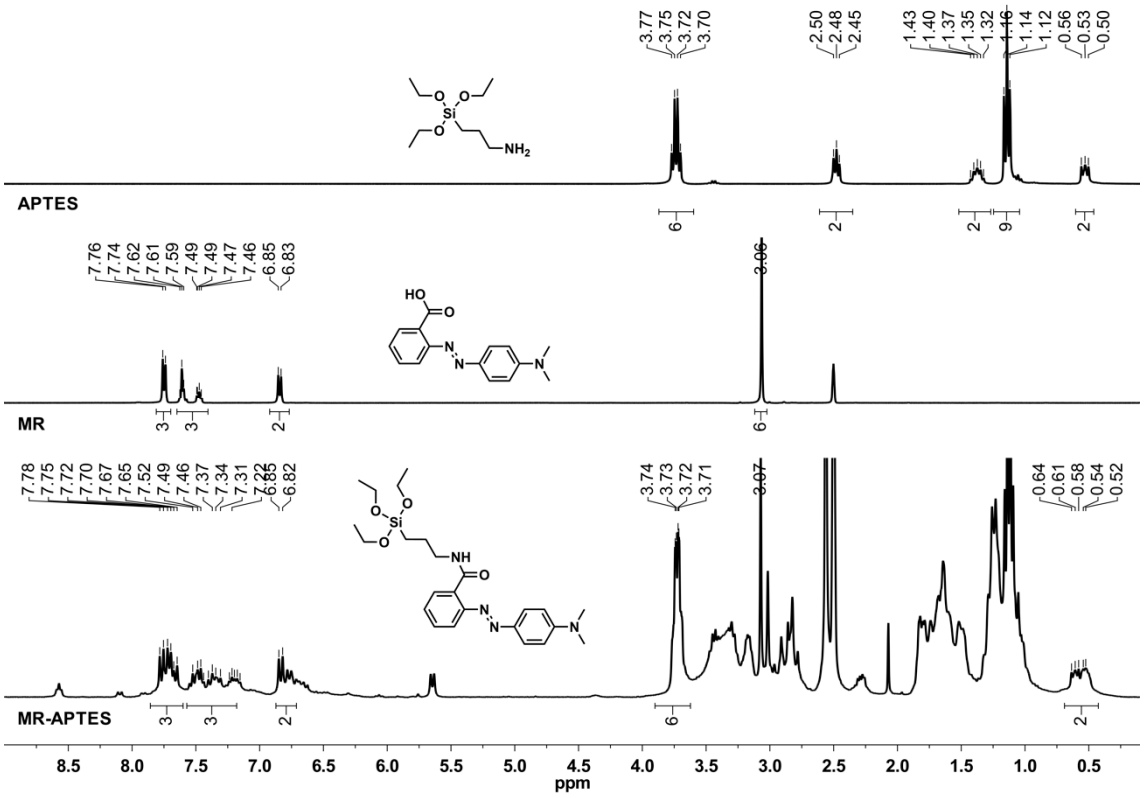

Figure S4. ^{1}H NMR spectra of (3-aminopropyl) triethoxysilane (APTES), methyl red (MR) and the silicon precursor MR-APTES in DMSO-*d6*.