Nanocomposites from Natural Templates based on Fatty Compound-Functionalised Siloxanes

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Supplementary Information

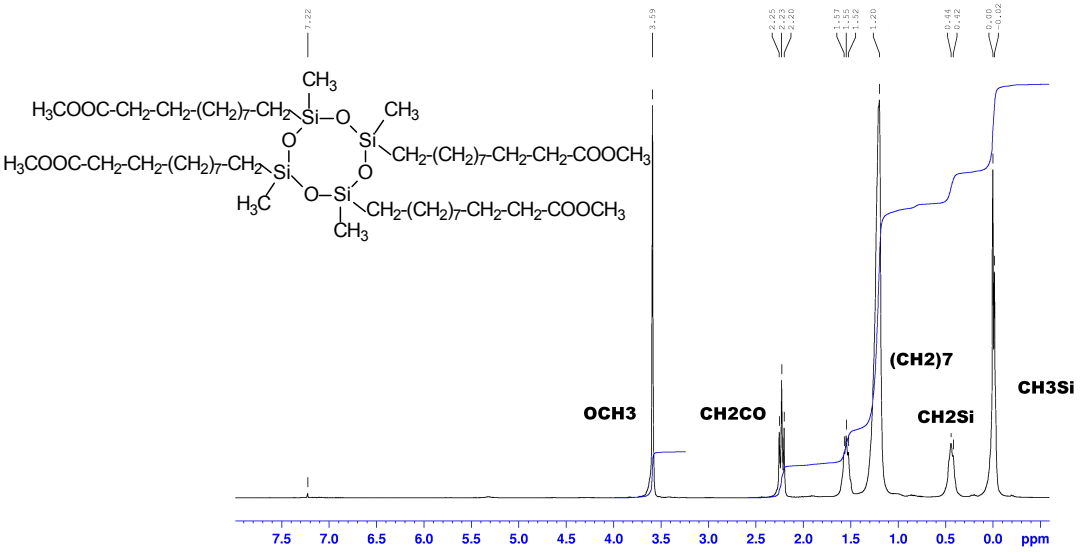


Figure S_1. ^{1}H NMR of **P_2**

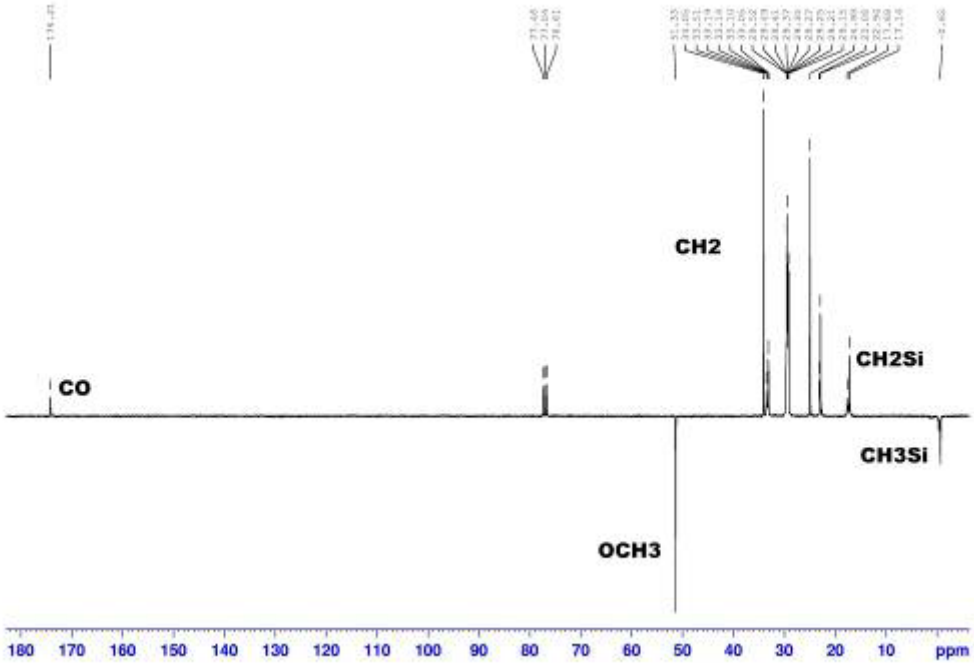


Figure S_2 : ^{13}C NMR of **P_2**

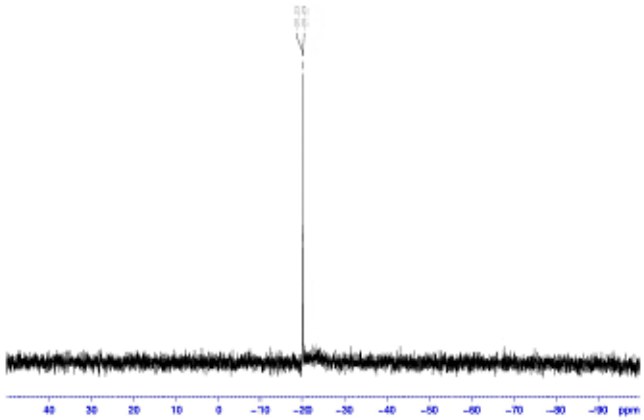
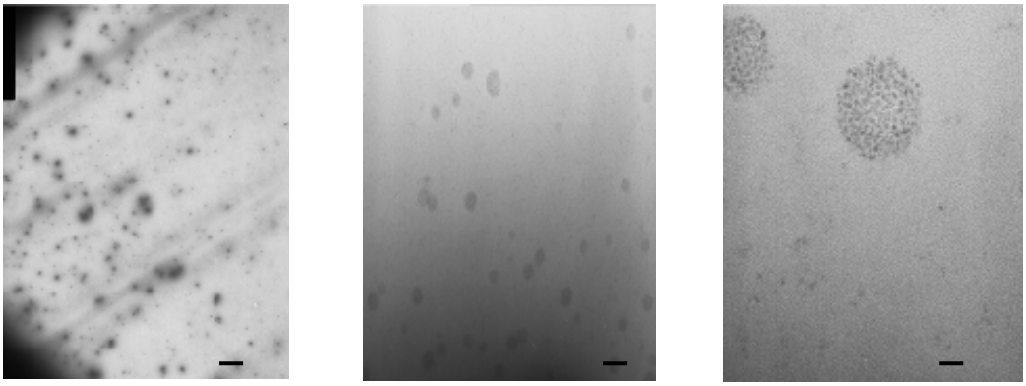
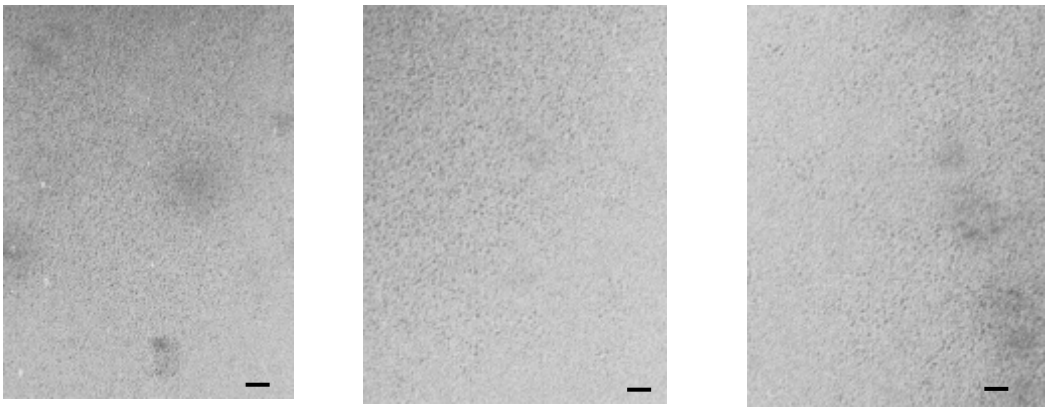


Figure S3. ^{29}Si NMR of **P2**



P2a (2μm) **P3a** (300 nm) **P4a** (80 nm)

Figure S4. TEM images of fatty acid functionalised siloxane **P2a**, **P3a**, **P4a** in ethanol, that of **P1a** being shown in the manuscript.
(Scale bars are indicated between brakets),



P2b (20 nm) **P3b** (20 nm) **P4b** (20 nm)

Figure S5. **.** TEM images of fatty acid functionalised siloxane **P2b**, **P3b**, **P4b** in heptane**,** that of **P1b** being shown in the manuscript
(Scale bares are indicated between brackets)

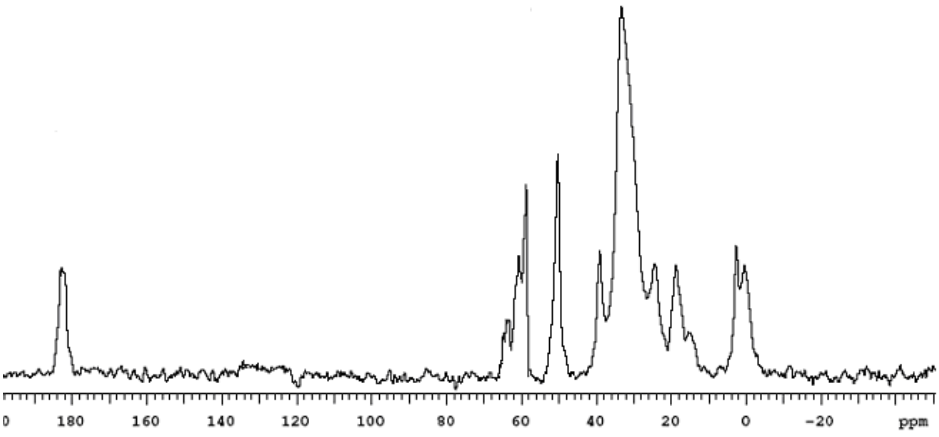


Figure S$_6$. ^{13}C CP MAS NMR of **M2b.**

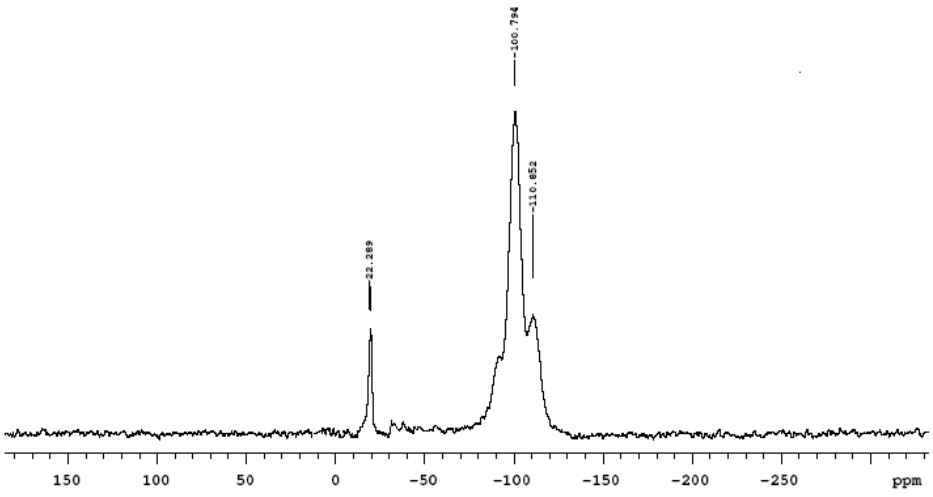
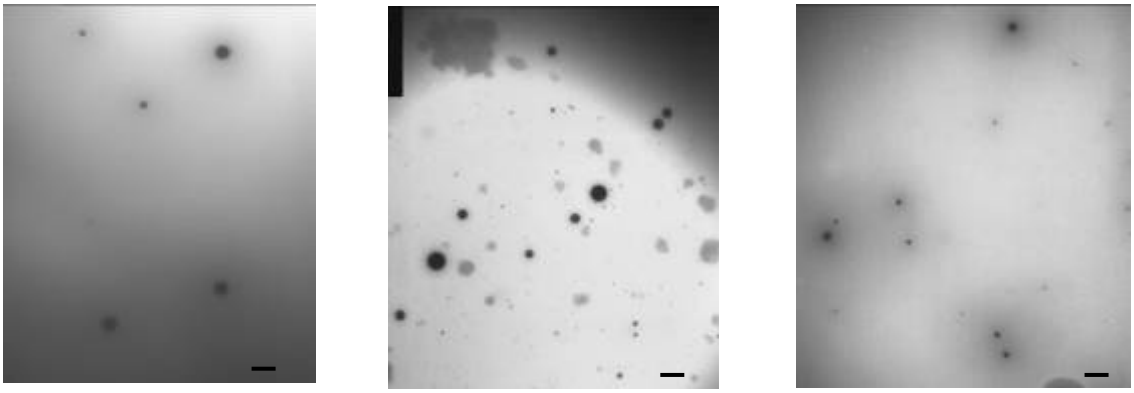
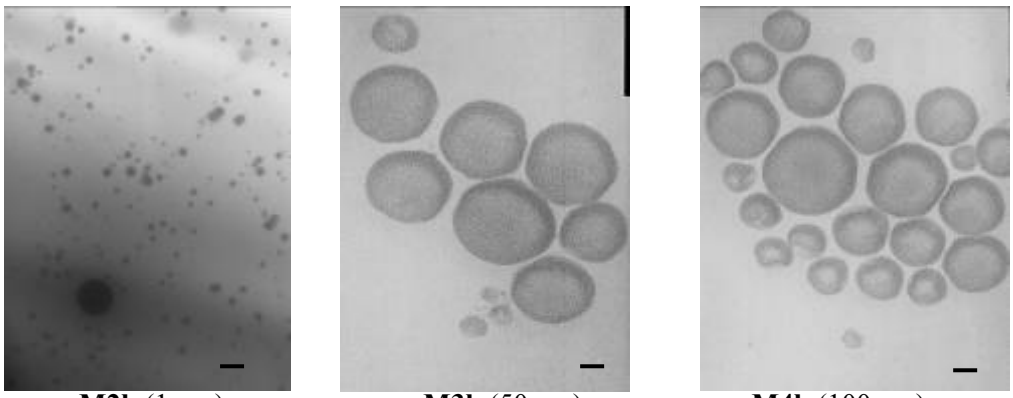


Figure S$_7$. ^{29}Si CP MAS NMR of **M2b**



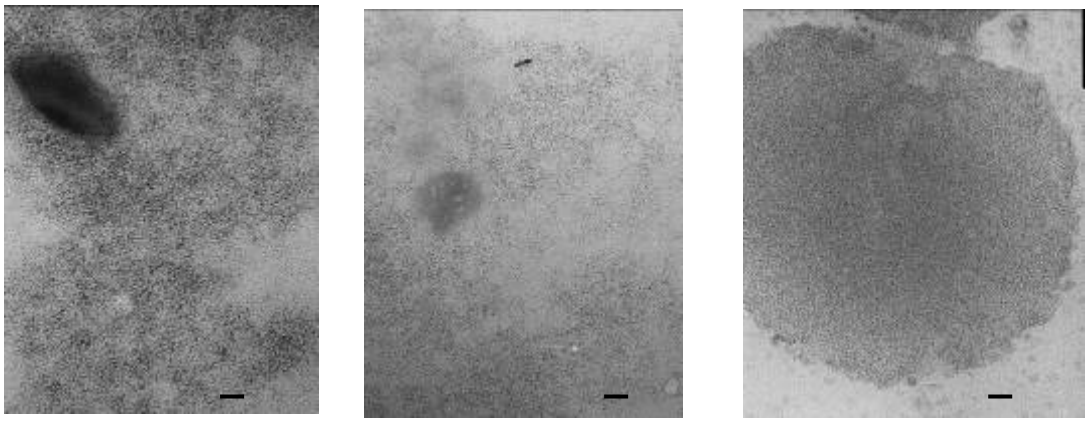
M2a (200 nm) **M3a** (400 nm) **M4a** (2 μm)

Figure S$_8$. TEM images of hybrid materials obtained from fatty acid functionalised siloxane **P$_{2a}$**, **P$_{3a}$**, **P$_{4a}$**, in ethanol and acid conditions in presence of TEOS, that of **M1a** from **P$_{1a}$** being shown in the manuscript
(Scale bares are indicated between brackets)



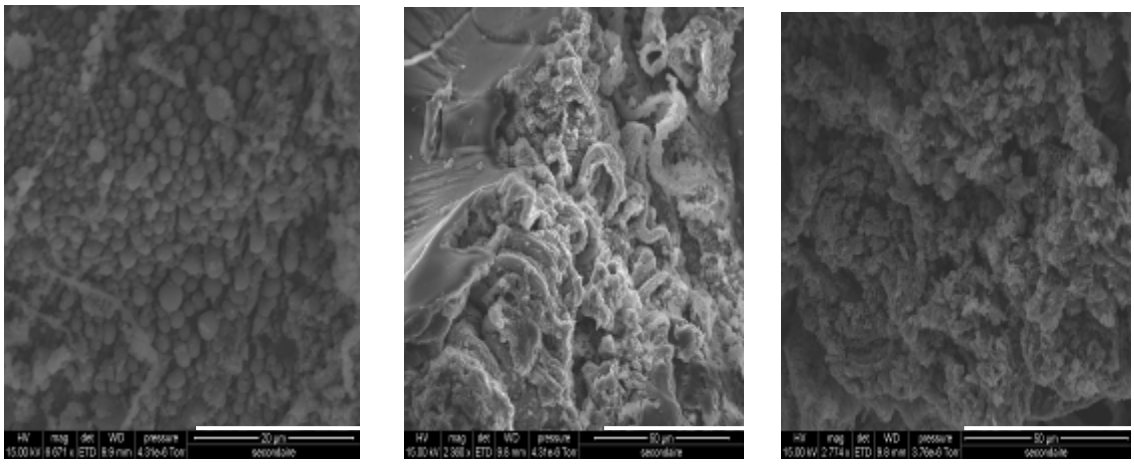
M2b (1 μm) **M3b** (50 nm) **M4b** (100 nm)

Figure S$_9$. TEM images of hybrid materials obtained from fatty acid functionalised siloxane **P$_{2a}$**, **P$_{3a}$**, **P$_{4a}$**, in ethanol and basic conditions in presence of TEOS, that of **M1b** from **P$_{1a}$** being shown in the manuscript
(Scale bares are indicated between brackets)



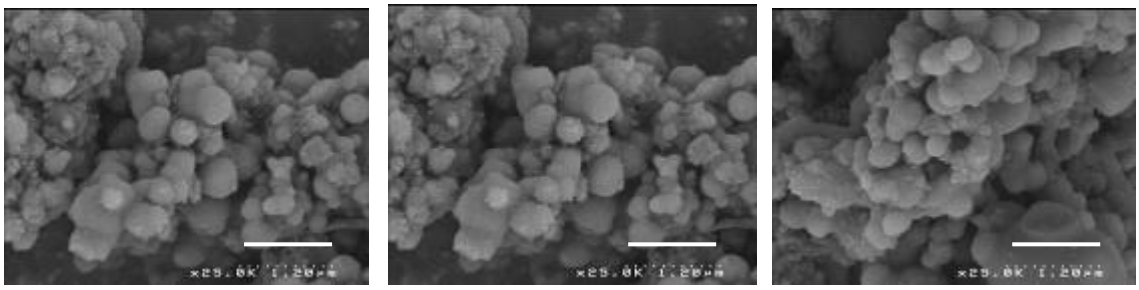
M2c (10 nm) **M3c** (10 nm) **M4c** (10 nm)

Figure S$_{10}$. TEM images of hybrid materials obtained from fatty acid functionalised siloxane **P$_{2b}$**, **P$_{3b}$**, **P$_{4b}$**, in heptane and in presence of TEOS, that of **M1c** from **P$_{1b}$** being shown in the manuscript
(Scale bares are indicated between brackets)



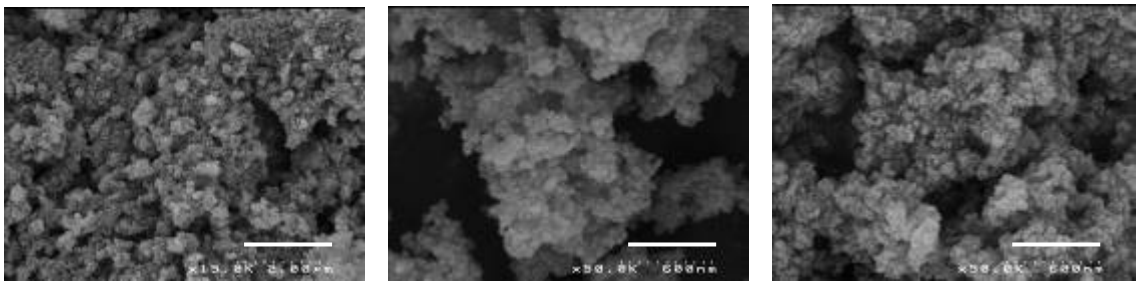
M2a (20µm) **M3a(50µm)** **M4a (50µm)**

Figure S_{11}. SEM images of hybrid materials obtained from fatty acid functionalised siloxane $\mathbf{P_{2a}}$, $\mathbf{P_{3a}}$, $\mathbf{P_{4a}}$, in ethanol and acid conditions in presence of TEOS, that of **M1a** from $\mathbf{P_{1a}}$ being shown in the manuscript
(Scale bares are indicated between brackets)



M2b (1.20µm) **M3b (1.20µm)** **M4b (2.00µm)**

Figure S_{12}. SEM images of hybrid materials obtained from fatty acid functionalised siloxane $\mathbf{P_{2a}}$, $\mathbf{P_{3a}}$, $\mathbf{P_{4a}}$, in ethanol and basic conditions in presence of TEOS, that of **M1b** from $\mathbf{P_{1a}}$ being shown in the manuscript
(Scale bares are indicated between brackets)



M2c (2.00µm) **M3c (600nm)** **M4c (600nm)**

Figure S_{13}. SEM images of hybrid materials.obtained from fatty acid functionalised siloxane $\mathbf{P_{2b}}$, $\mathbf{P_{3b}}$, $\mathbf{P_{4b}}$, in heptane and in presence of TEOS, that of **M1c** from $\mathbf{P_{1b}}$ being shown in the manuscript
(Scale bares are indicated between brackets)

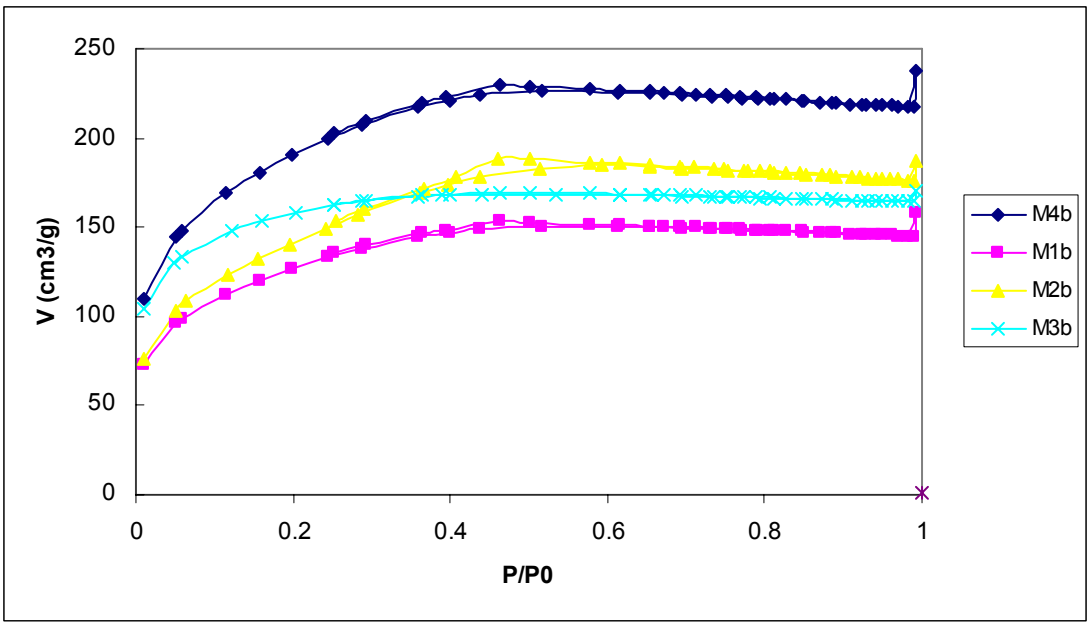


Figure S_{14} . Nitrogen adsorption desorption of hybrid materials prepared under basic conditions