Supplementary Information, Figure S1

Nitrogen adsorption isotherm of SBA-15-COOH

![Nitrogen adsorption isotherm of SBA-15-COOH](image)

$t$-plot of SBA-15-COOH (Micropore volume = 0.028 cm$^3$/g)
Nitrogen adsorption isotherm of Et-PMO-COOH

\[
\begin{align*}
\text{Volume adsorbed (cm}^3\text{ g}^{-1}, \text{ STP})
\end{align*}
\]

\[
\begin{array}{c}
\text{P/P}_0 \\
0.00 \quad 0.25 \quad 0.50 \quad 0.75 \quad 1.00
\end{array}
\]

\[
\begin{align*}
t\text{-plot of SBA-15-COOH (Micropore volume = 0.057 cm}^3\text{ g}^{-1})
\end{align*}
\]
Supplementary Information, Figure S2.

Titration analysis

SBA-15-COOH and Et-PMO-COOH acidity capacity of anchored carboxylic groups were evaluated by a pH-metric titration of the sample against a 0.05 M NaOH solution (previously standardised by titration with potassium hydrogenphthalate) in presence of 1M NaCl. The first derivative curve was used for computation of the acidity capacity.

Acid-base titration (NaOH) of SBA-15-COOH in the presence of NaCl 1M

![Graph of pH vs NaOH added for SBA-15-COOH](image)

Acid-base titration (NaOH) of Et-PMO-COOH in the presence of NaCl 1M

![Graph of pH vs NaOH added for Et-PMO-COOH](image)