SUPPORTING INFORMATION

Gold nanoparticle-mesoporous silica sheet composite with enhanced antibody adsorption capacity

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Fig. S1 Au particle size distributions for sheet-Au-550.
Fig. S2 FE-SEM image of silica beads prepared using the Stöber method.
Fig. S3 TEM images of Stöber-Au-550 (a) × 50 k and (b) × 800 k.
Fig. S4 Nitrogen adsorption–desorption isotherms and pore distributions for MCM-NH$_2$ (black) and MCM-Au-550 (red).
Fig. S5 XRD patterns for MCM-Au-550 and Stöber-Au-550.
Fig. S6 XPS spectra of the silica samples: (a) wide range, (b) N 1s and (c) Si 2p.
Fig. S7 Thermogravimetry (TG) curves for MCM-NH$_2$ (blue), MCM-Au-550 (green) and Stöber-Au-550 (black).
Table S1 Quantity of adsorbed IgG on various silica materials.

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<tr>
<td>Amount of adsorbed IgG [mg/mg]</td>
<td>0.21</td>
<td>0.15</td>
<td>0.26</td>
<td>0.04</td>
<td>0.13</td>
<td>0.10</td>
<td>0.14</td>
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3 0.5 mg of IgG/800 mL of 10 mM Phosphate Buffer (pH7.0) @ 1.5 mg of carrier

4 Adsorption reaction time = 3 h

5 Absorbance = 595 nm (1 s) (Using the Bradford method)