Supporting Information

Chiroptical phenolic resins grown on chiral silica bonding amine residues

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Fig. S1  FT-IR spectra of before (black line) and after (red line) calcination samples of SiO$_2$@D-PEI/tart
Fig. S2  TGA curves of D- (red line) and L- (blue line) SiO$_2$@PEI/tart.
Fig. S3  SEM images of L- (left) and D-(right) SiO$_2$@PEI/tart.
Fig. S4  a) DRCD and b) UV-Vis spectra of D- and L-SiO$_2$@PEI/tart.
Table S1. Nitrogen contents* of SCA-SiO$_2$

<table>
<thead>
<tr>
<th>SCA-SiO$_2$ (L-form)</th>
<th>Weight loss (%)</th>
<th>Nitrogen content ($10^{-6}$ mol/g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1^{\circ}$P-SiO$_2$</td>
<td>16.4</td>
<td>2.77</td>
</tr>
<tr>
<td>$2^{\circ}$P-SiO$_2$</td>
<td>13.7</td>
<td>1.87</td>
</tr>
<tr>
<td>$3^{\circ}$P-SiO$_2$</td>
<td>14.2</td>
<td>1.63</td>
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<tr>
<td>Im-SiO$_2$</td>
<td>21.1</td>
<td>3.76</td>
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</tbody>
</table>

*Calculated from TGA curves
**Fig. S5** FT-IR spectra of Im-SiO$_2$@RF (orange line) and after HF treatment of Im@RF (blue line).
<table>
<thead>
<tr>
<th>SCA@RF (L-form)</th>
<th>Mass ratio %</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1ºP@RF</td>
<td>5.5</td>
<td>94.5</td>
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<tr>
<td>2ºP@RF</td>
<td>4.2</td>
<td>95.8</td>
<td></td>
</tr>
<tr>
<td>3ºP@RF</td>
<td>3.7</td>
<td>96.3</td>
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<tr>
<td>Im@RF</td>
<td>8.8</td>
<td>91.2</td>
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</tbody>
</table>

*Calculated from TGA curves
**Fig. S6**  TGA curves of 1\(^\circ\)P@RF (black line), 2\(^\circ\)P@RF (red line), 3\(^\circ\)P@RF (green line) and Im@RF (blue line).
Fig. S7  SEM images of a) 1°P@RF, b) 2°P@RF, c) 3°P@RF and d) Im@RF (all the samples were L-form).
**Fig. S8** CD spectra of supernatants prepared by a) DL-mandelic acid with chiral adsorbents and 24 h stirring: blue line, DL-mandelic acid with L-1°P-SiO$_2$@R4F; red line, D-1°P-SiO$_2$@R4F; black line, DL-mandelic acid without adsorbent.