Supporting Information

Molecular Recognition at Nanoscale Interface within Carbon Nanotube Bundles

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**Fig. S1** SEM images of (A, C, E, G) isolated- and (B, D, F) bundled-CoMoCAT-silica in different areas. Scale bars: 200 nm.
**Fig. S2** SEM images of (A, C, E) *isolated* and (B, D) *bundled-Arc*-silica in different areas. Scale bars: 200 nm.
**Fig. S3** Diameter histograms of SWNTs coated on silica spheres for (A) *isolated*- and (B) *bundled*-CoMoCAT-silica and (C) *isolated*- and (D) *bundled*-Arc-silica.
Fig. S4  (A) 2D map scanned by the UV detector (MD-2018, JASCO) using triphenylene as the analyte. (B) A chromatogram at 258 nm extracted from the 2D map.

Fig. S5  Chromatograms of (1) fluorene, (2) anthracene, (3) p-terphenyl, (4) pyrene, (5) triphenylene, (6) 1,2-benzanthracene and (7) chrysene obtained from NH₂-column using 99/1 (v/v) n-hexane/acetonitrile as the mobile phase at the flow rate of 0.1 mL/min.
**Fig. S6** SEM images of (A) isolated- and (B) stacked-GNP-silica. Scale bars: 1 μm.