

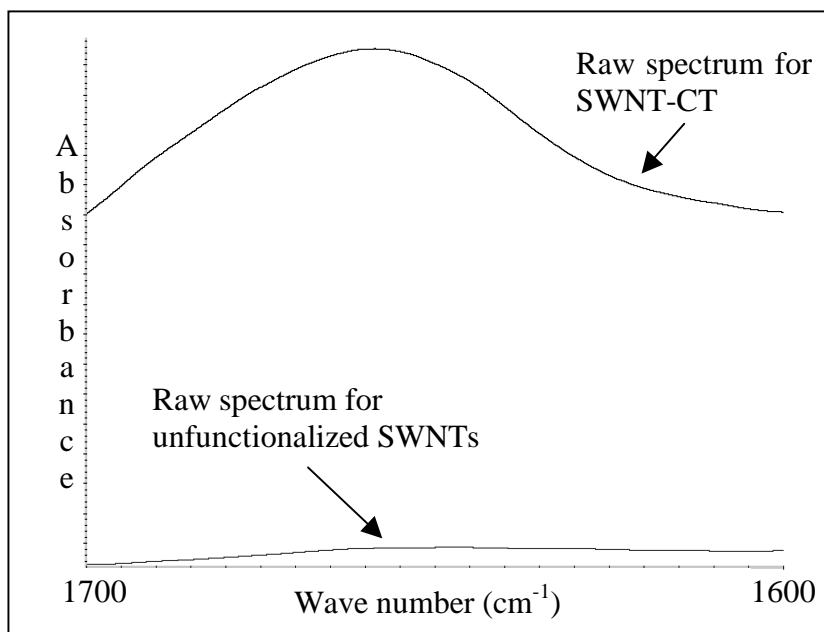
## Supporting Information

**Table 1.** Mean peak positions and assignments for solution phase enzymes.

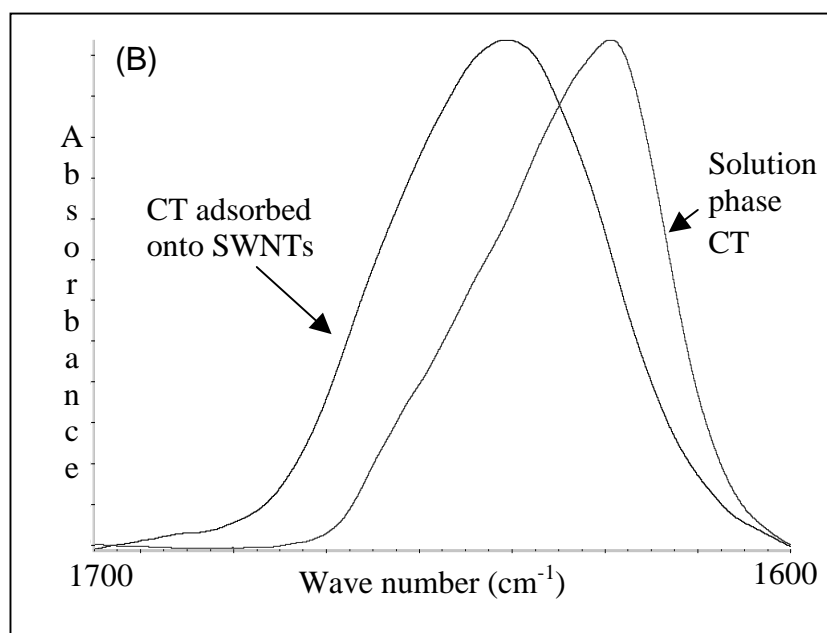
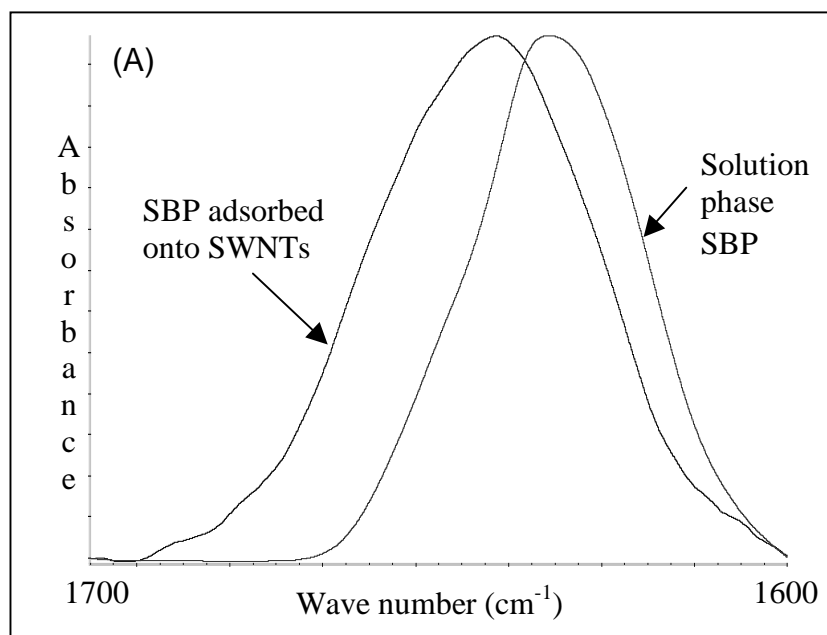
mean frequencies (cm <sup>-1</sup> )	assignment
1623 ± 1	β-sheet
1627 ± 1	β-sheet
1630 ± 1	β-sheet
1636 ± 1	β-sheet
1646 ± 1	unordered
1650 ± 0	unordered
1655 ± 1	α-helix
1663 ± 1	α-helix
1668 ± 1	turns
1671 ± 1	turns
1675 ± 1	turns
1683 ± 1	turns
1688 ± 1	turns
1690 ± 1	β-sheet
1695 ± 1	β-sheet

**Table 2.** Mean peak positions and assignments for enzymes adsorbed onto SWNTs.

mean frequencies (cm <sup>-1</sup> )	assignment
1624 ± 0	β-sheet
1629 ± 1	β-sheet
1634 ± 0	β-sheet
1642 ± 1	β-sheet
1646 ± 1	unordered
1651 ± 1	unordered
1656 ± 1	α-helix
1662 ± 0	α-helix
1668 ± 1	turns
1672 ± 0	turns
1681 ± 2	turns
1687 ± 0	turns
1691 ± 1	β-sheet
1695 ± 1	β-sheet



**Supporting Figure 1.** FT-IR spectrum in the region 1600 to 1700 cm<sup>-1</sup> for SWNT-CT and unfunctionalized SWNTs.



**Supporting Figure 2.** FT-IR spectra in the region 1600 to 1700  $\text{cm}^{-1}$  for (A) SBP adsorbed onto SWNTs (half monolayer coverage) and solution phase SBP, (B) CT adsorbed onto SWNTs (half monolayer coverage) and solution phase CT.