

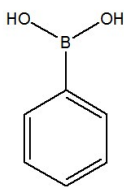
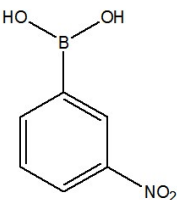
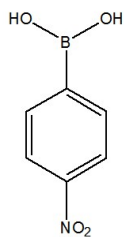
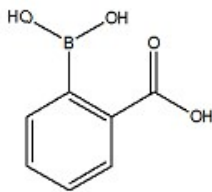
Supporting Information

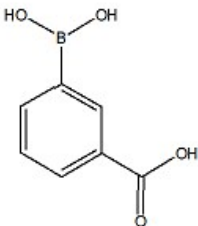
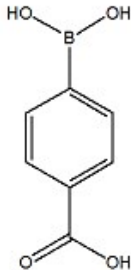
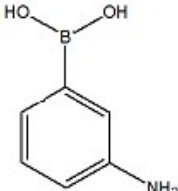
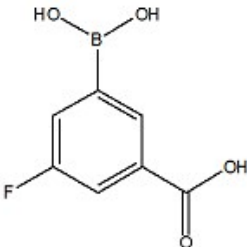
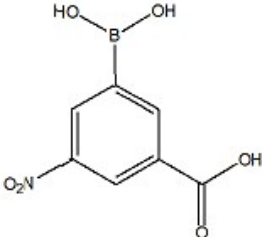
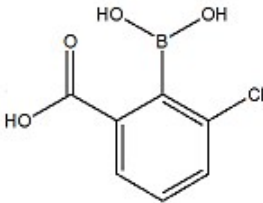
Determination of SWCNT(6,5) Concentration

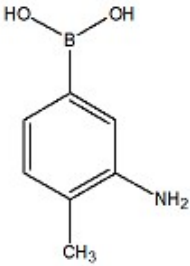
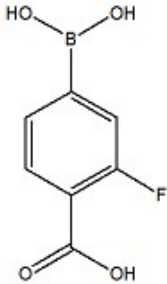
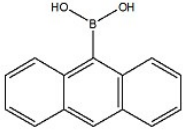
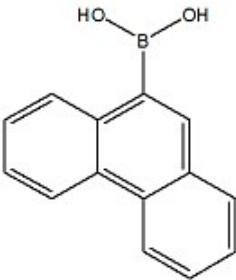
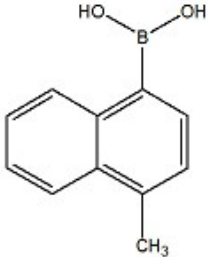
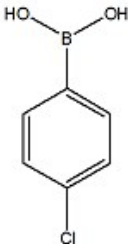
We use the absorption wavelength of the absorption spectrum to determine the concentration of the purified SWCNT(6,5). Several different concentrations of carbon nanotube in 1%wt SDS dispersions were used to characterized by UV/Vis/NIR spectra. 560nm wavelength peak was chosen as the standard for concentration measurement because it is E_{22} wavelength of SWCNT(6,5).

Figure S1. Linear plots of the concentration of the SWCNTs (6,5) absorbance at 560nm wavelength peak. The linear fitting equation is $y=33.488x+0.0005$. ($R^2 = 0.99$)

Table S1. Library of phenylboronic acid

Phenylboronic acid derivative	Structure
Phenylboronic acid(PBA)	
3-nitrophenylboronic acid(3NPBA)	
4-nitrophenylboronic acid(4NPBA)	
2-carboxybenzeneboronic acid(2CPBA)	

3-carboxybenzeneboronic acid(3CPBA)	
4-carboxybenzeneboronic acid(4CPBA)	
3-aminophenylboronic acid(3AMBA)	
3-carboxy-5-fluorobenzeneboronic acid(5F3CPBA)	
3-carboxy-5-nitrophenylboronic acid(5N3CPBA)	
5-carboxy-2-chlorobenzen boronic acid(2Cl5CPBA)	

3-amino-4-methylbenzeneboronic acid(3A4MPBA)	
4-carboxy-3-fluorophenylboronic acid (4C3FPBA)	
9-anthraceneboronic acid(9ANBA)	
9-phenanthreneboronic acid(9PHBA)	
4-methyl-1-naphthaleneboronic acid(4M1NPBA)	
4-chlorophenyl boronic acid(4CYBA)	

3-acetylphenylboronic acid(3ACPBA)

