

Recent developments in purification of single wall carbon nanotubes

ABSTRACT

The status of SWNT purification sciences within the last two decades are reviewed. Over the years, the aggressive search for effective and efficient post-synthetic purification technique has given rise to the development of numerous methods. Unfortunately, most of these methods do not possess the potentials of being selective, scalable, nor effective. On the other hand, the mechanisms behind the promising separation methods are yet to be fully understood. For such techniques, it is recommended that interest should now lie more on investigating the underpinning mass transfer kinetics and equilibrium thermodynamics with a view to making them more efficient.

Keyword: SWNTs; Magnetic filtration; Ultracentrifuge; Gel chromatograph; Agarose gel