

Supplementary Figure Captions

Supplementary Information

Table 1: XPS data for the reaction between MWCNT-COCl and MWCNT-OH

Material	% Oxygen	% Cl
MWCNT-OH	0.430	-
MWCNT-COCl	0.177	0.390 (0.0111 mole)
Graphene	0.132	0.056

Total Cl remaining in 100 g =0.056 g

Weight of unreacted Cl in 200 g of mixture =0.112 g

Weight of reacted Cl=0.39-0.112 =0.278 g

% Yield =71.3

Total oxygen in 200g=0.43 +0.177=0.607

Remaining oxygen = 0.607-0.0111x0.713x32 =0.253

Which will lead to=0.127 %