

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Synthesis and Characterization of Graphene Sheets Covalently Functionalized with Polyaniline SANJEEV MANOHAR, SRIKANTHRAO AGNIHOTRA, AKSHAY PHULGIRKAR, University of Massachusetts Lowell — Herein we report covalent functionalization of graphene oxide (GO) with conducting polymer polyaniline and aniline tetramer for the first time. The covalently functionalized rGO is electrically conducting, shows improved electrochemical properties and enhanced specific capacitance compared to rGO. We also observed enhanced thermal stability and antistatic properties can be obtained on addition of these covalently functionalized composites into the polymer matrix such as PMMA.

Sanjeev Manohar
University of Massachusetts Lowell

Date submitted: 19 Nov 2010

Electronic form version 1.4