

Abstract Submitted
for the MAR17 Meeting of
The American Physical Society

Electrostatic and chemical doping of C60-filled nanotubes WU SHI, Lawrence Berkeley National Laboratory; University of California, Berkeley, HAMID BARZAGAR, SEITA ONISHI, University of California, Berkeley, ALEX ZETTL, Lawrence Berkeley National Laboratory; University of California, Berkeley — C60-filled nanotubes, known as fullerene peapods, have attracted considerably interest for many years not only because of their peculiar hybrid structures but also due to their anticipated unique electronic properties and potential applications, such as memory effects and high temperature superconductivity. However, the superconducting or even truly metallic behavior has not yet been achieved. In this study, we use both the electrostatic and chemical methods to effectively dope the C60-filled nanotubes and modulate their transport properties. TEM characterization and low temperature transport results on these doped samples will be presented.

Wu Shi
Lawrence Berkeley National Laboratory

Date submitted: 11 Nov 2016

Electronic form version 1.4