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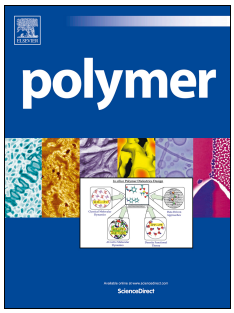

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PII: S0032-3861(15)00193-7

DOI: 10.1016/j.polymer.2015.02.033

Reference: JPOL 17646

To appear in: *Polymer*

Received Date: 3 November 2014

Revised Date: 13 February 2015

Accepted Date: 16 February 2015

Please cite this article as: Ren X, Yang B, Zhao Y, Zhang X, Wang X, Wei Y, Tao L, One-pot Polymer Conjugation on Carbon Nanotubes through Simultaneous π-π Stacking and the Biginelli Reaction, *Polymer* (2015), doi: 10.1016/j.polymer.2015.02.033.

One-pot Polymer Conjugation on Carbon Nanotubes through Simultaneous π-π Stacking and the Biginelli Reaction

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ABSTRACT: The Biginelli reaction has been utilized as an effective click reaction to collaborate with π-π stacking to prepare carbon nanotube-polymer conjugates. The synthesized polymers are successfully anchored on carbon nanotube surface via 'grafting to' strategy, and the obtained carbon nanotube-polymer composites possessing characteristic properties of anchored polymer can be well dispersed in general solution to expand carbon nanotubes application realm.

INTRODUCTION

The application of carbon nanotubes (CNTs) which own unique structural and electronic properties, high tensile strength and quasi-ballistic conductance[1-4] has been