

A Hetero-Bifunctional Spacer for the Smart Engineering of Carbon-Based Nanostructures

Tuci G., Luconi L., Rossin A., Baldini F., Cicchi S., Tombelli S., Trono C., Giannetti A., Manet I., Fedeli S., Brandi A., Giambastiani G.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2015 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim. The cover picture shows a multifunctional platform based on carbon nanotubes, where a modular organic spacer acts as the anchoring site for controlled covalent functionalization of the surface. The combination of fluorescent dyes and post-derivatizable disulfide pendant arms capable of reacting with thiol end-capped (bio)molecules, generates optically traceable (bio)conjugates. The release of a pyridinic dye allows for a precise estimation of the functionalization loading through simple UV/Vis measurements. Details are given in the Full Paper by Giuliano Giambastiani et al. (DOI: 10.1002/cplu.201402391).

<http://dx.doi.org/10.1002/cplu.201500036>
