

Title: Graphene oxide and photosensitizer interaction in drug delivery

Fellipy S. Rocha[a], Anderson J. Gomes[a,b], Claure N.Lunardi[a,b]

a Postgraduate program in Nanoscience and Nanobiotechnology , University of Brasília, Brasília,
Brazil
b Laboratory of Photochemistry and Nanobiotechnology, University of Brasília, Brasília, Brazil
E-mail: clunardi@unb.br

Graphene Oxide (GO) is an oxidized form of graphene, containing functional groups exposed all over its surface expanding the capacity to link drugs and others functional molecules through noncovalent/covalent interaction. Therefore GO can be considered an appropriate platform, since it can easily physically absorb cationic charged dye compounds via strong p-p and electrostatic interaction on its surface resulting on the formation of GO-dye composite. GO is basically composed of carbon than it can be considered relatively biocompatible, being a good candidate for biological applications as well. We associated GO with a photosensitizer for use photodynamic therapy. Uv-vis spectroscopy and fluorescence emission measurement were used to characterize this system. **Support: FAPDF,CNPq,CAPES,FINATEC.**

Claure N.Lunardi has completed her undergraduate in chemistry from Universidade de São Paulo (1996), master's at Chemistry from Universidade de São Paulo (1999) and PHD at Chemistry from Universidade de São Paulo (2004). Has experience in Chemistry, focusing on Photochemistry and Nanotechnology. She has published more than 45 papers in reputed journals.

Presenting author details
Full name: Claure Nain Lunardi
Contact number: clunardi@unb.br
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