

Supplementary Information

# Photodegradation of Methylene Blue and Rhodamine B Using Laser-Synthesized ZnO Nanoparticles

Damjan Blažeka <sup>1</sup>, Julio Car <sup>1</sup>, Nikola Klobučar <sup>1</sup>, Andrea Jurov <sup>2,3</sup>, Janez Zavašnik <sup>2</sup>, Andrea Jagodar <sup>4</sup>, Eva Kovačević <sup>4</sup> and Nikša Krstulović <sup>1,\*</sup>

<sup>1</sup> Institute of Physics, Bijenička cesta 46, 10000 Zagreb, Croatia; dblazeka@ifs.hr (D.B); jcar@ifs.hr (J.C); nklobucbbb@gmail.com (N.K)

<sup>2</sup> Department of Gaseous Electronics, Jožef Stefan Institute, Jamova cesta 39, SI-1000 Ljubljana, Slovenia; andrea.jurov@ijs.si (A.J.); janez.zavasnik@ijs.si (J.Z.)

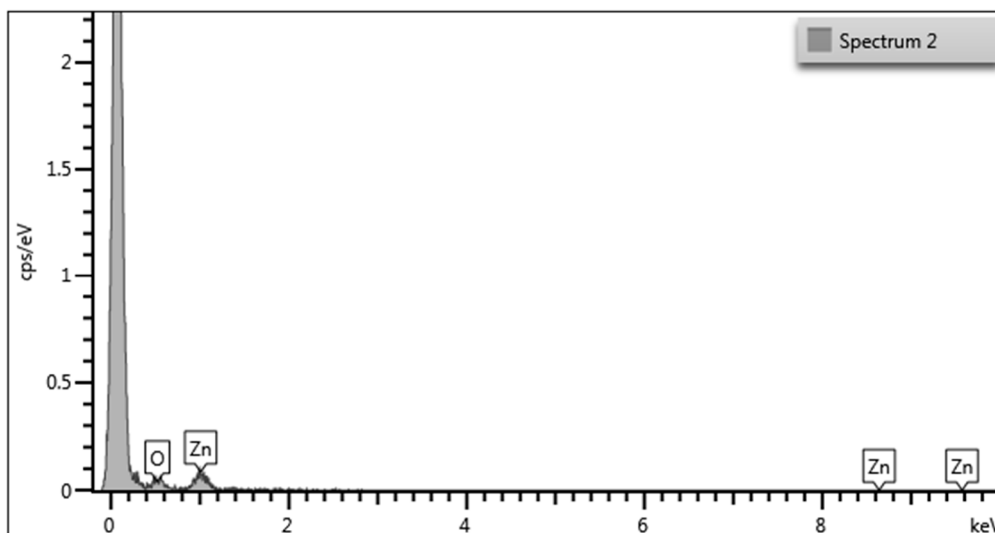
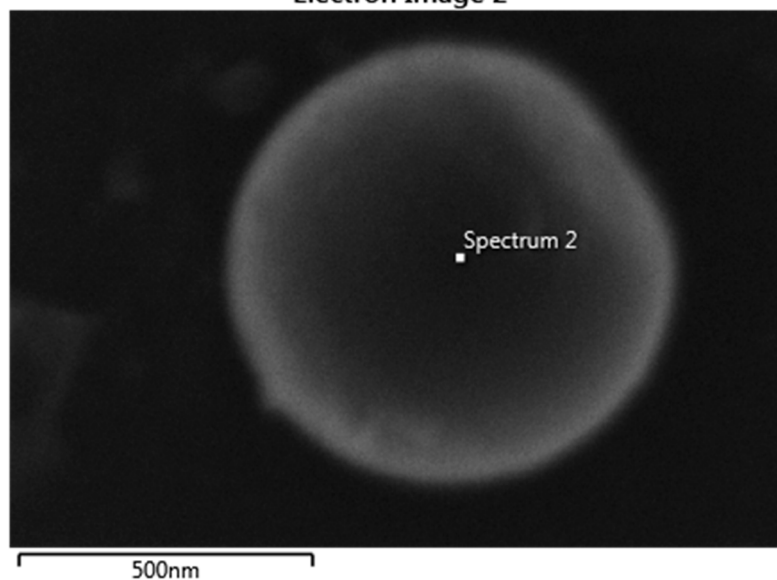
<sup>3</sup> Jožef Stefan International Postgraduate School, Jamova cesta 39, SI-1000 Ljubljana, Slovenia

<sup>4</sup> GREMI, UMR7344 CNRS/Université d'Orléans, F-45067 Orléans, France; andrea.jagodar@univ-orleans.fr (A.J.); eva.kovacevic@univ-orleans.fr (E.K.)

\* Correspondence: niksak@ifs.hr; Tel.: +385 1 4698 803

Received: 4 September 2020; Accepted: 28 September 2020; Published: date

Electron Image 2



Element	Atomic %
O	47.89
Zn	52.11
Total	100.00

Figure S1. EDS measurements of ZnONP.

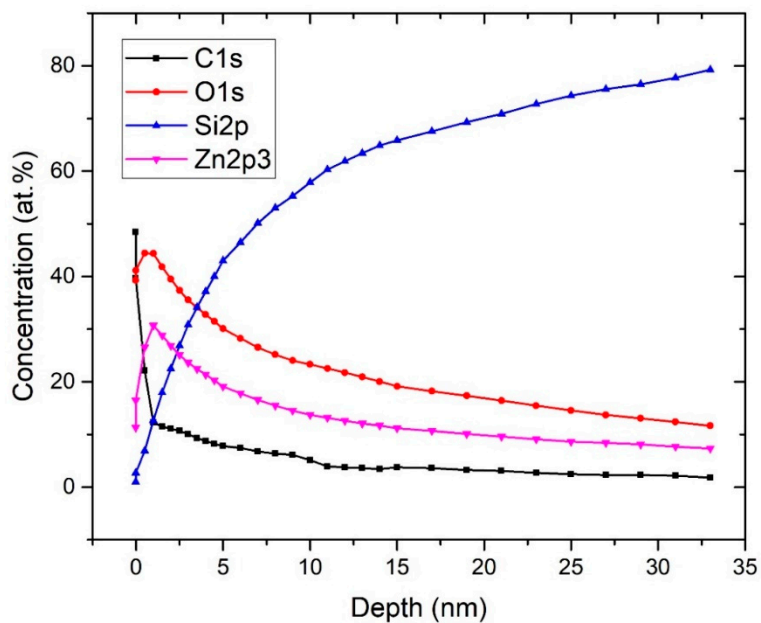


Figure S2. XPS depth profile of the layer of ZnO on Si substrate.

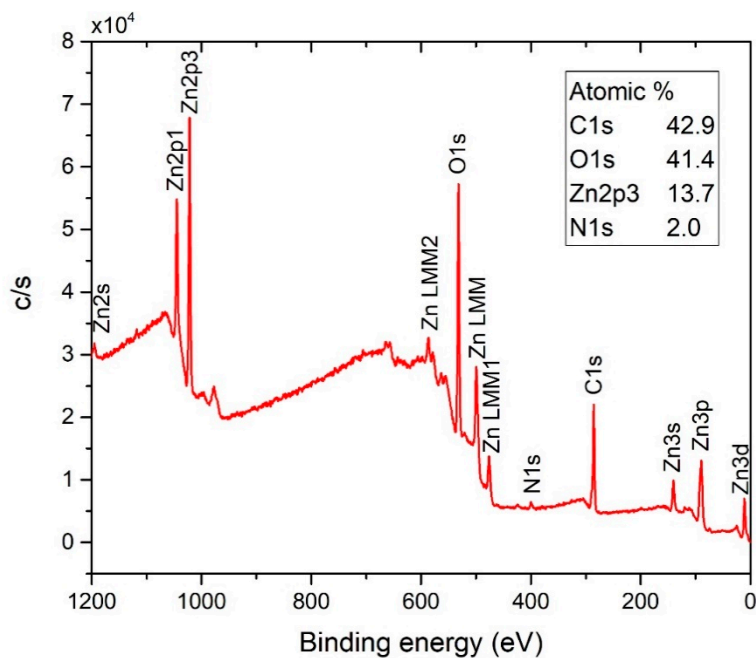
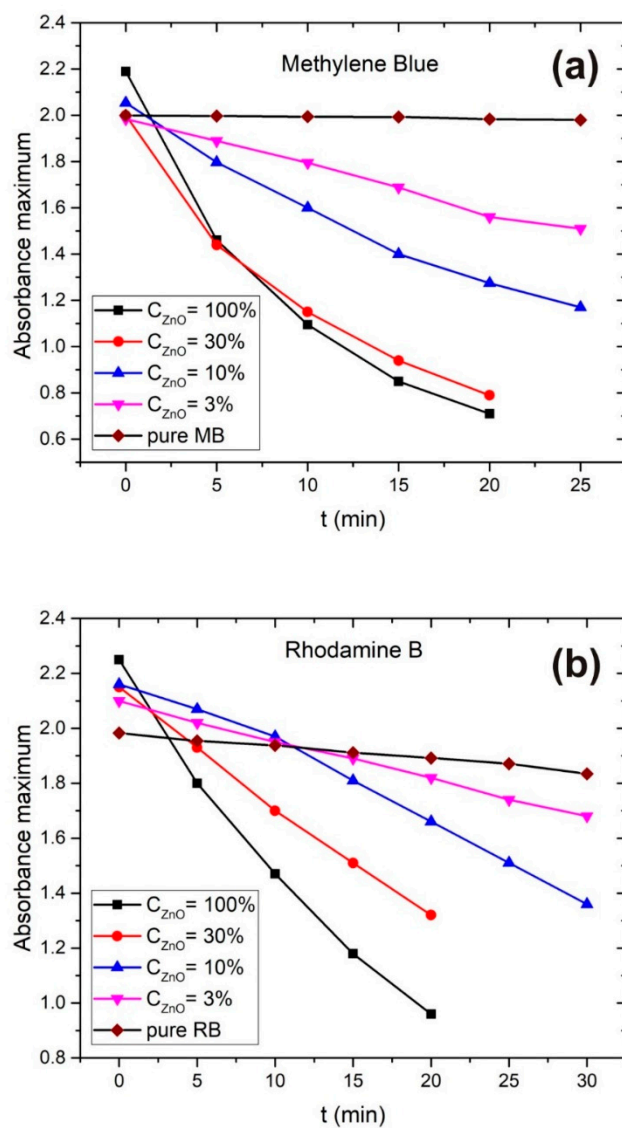
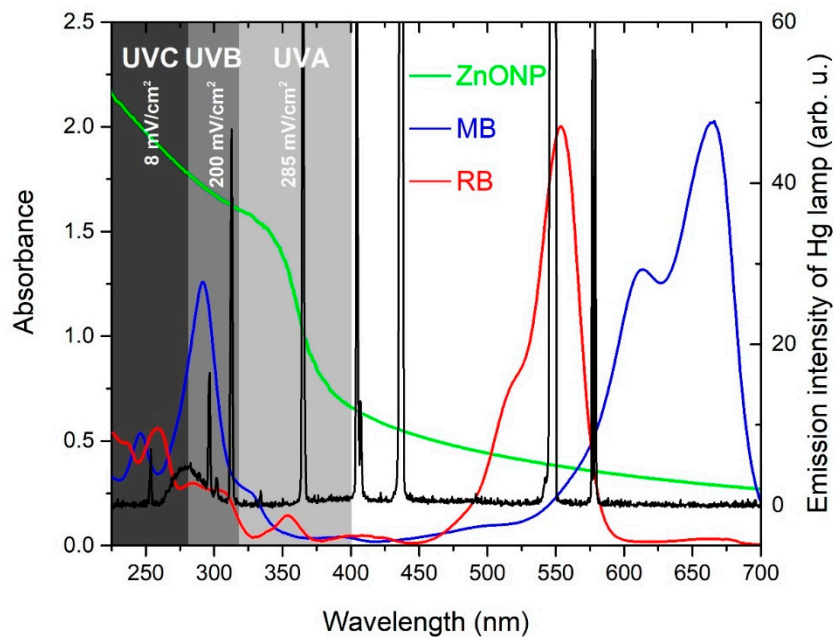


Figure S3. XPS survey spectrum of ZnO.



**Figure S4.** Photoabsorbance peak dependence on irradiation time for different ZnO mass concentrations of (a) Methylene Blue and (b) Rhodamine B.



**Figure S5.** Absorbance spectra of pure ZnONP colloid, MB and RB in comparison with Hg lamp emission spectrum.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).