

Singlet Oxygen Generation using a Porous Monolithic Polymer supported Photosensitizer: Potential Application to the Photodynamic Destruction of Melanoma Cells

M. Isabel Burguete,^a Francisco Galindo,*^a Raquel Gavara,^a Santiago V. Luis,*^a Miguel Moreno,^b Paul Thomas,^c and David A. Russell *^b

^a Departamento de Química Inorgánica y Orgánica / UAMOA; Universitat Jaume I / CSIC; Av. Sos Baynat, s/n, 12071 Castellón (Spain).

E-mail: francisco.galindo@uji.es; luiss@uji.es

^b School of Chemical Sciences and Pharmacy, University of East Anglia, Norwich, Norfolk, NR4 7TJ, U.K. E-mail: D.Russell@uea.ac.uk

^c School of Biological Sciences, University of East Anglia, Norwich, Norfolk, NR4 7TJ, U.K.

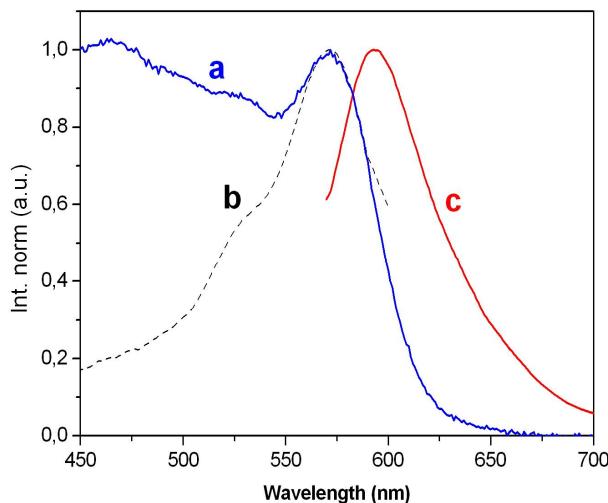


Figure S1. Optical characterization of **P_m-RB** by means of diffuse reflectance UV-visible spectroscopy (a) and steady-state fluorescence spectroscopies (b,c). The excitation

spectrum shown in (b) was obtained by monitoring the emission at 625 nm. The emission spectrum shown in (c) was obtained using an excitation wavelength of 550 nm.

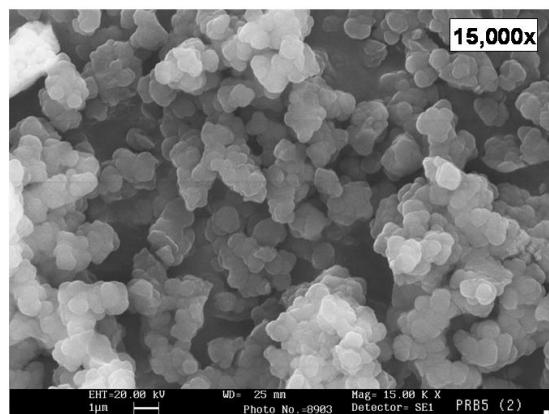


Figure S2. SEM micrograph of P_m -RB

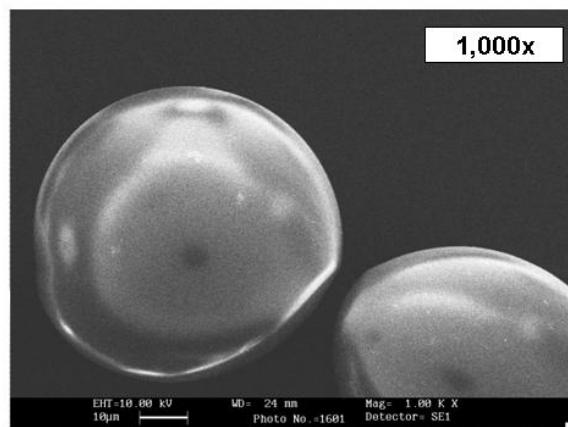


Figure S3. SEM micrograph of P_g -RB

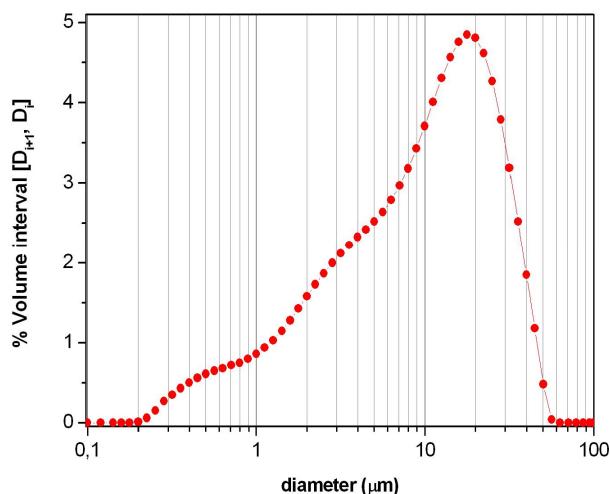


Figure S4. Particle size distribution of **P_m-RB** obtained by wet laser diffraction

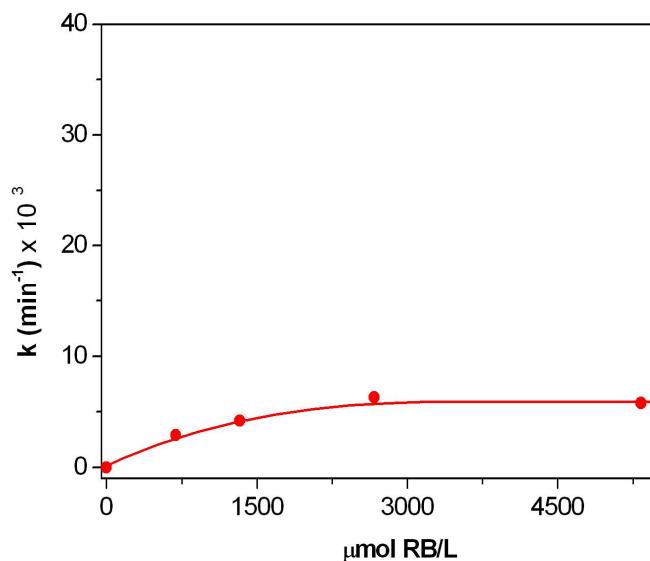


Figure S5. Kinetics of photooxidation of DPA in methanol photoinduced by **P_g-RB**.

Represented k_{obs} vs estimated concentration of RB (according to the loading of RB in **P_g-RB** and to the added amount of resin in each experiment.)

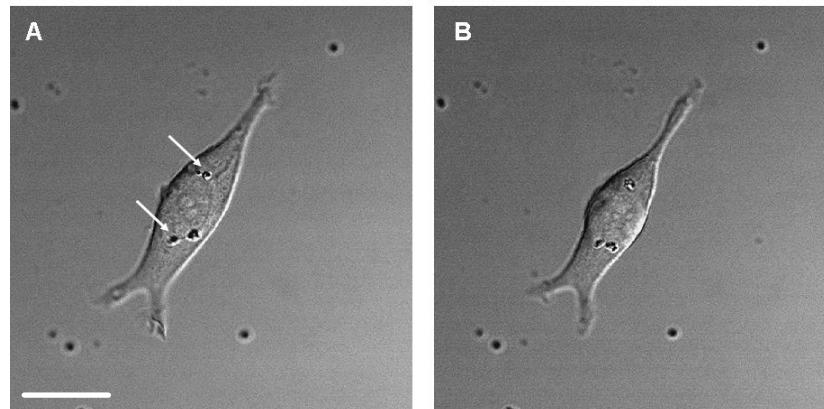


Figure S6. Combined confocal fluorescence and DIC (differential interference contrast) images of control experiments: (A) A pre-irradiation image of the polymer particles P_m (10 ng/mL) without rose-bengal which were incubated with the melanoma (B16/F10) cells, followed by 16 h incubation and (B) Image of the B16/F10 melanoma cell 90 min after treatment. The cellular morphology in (B) is similar to that of the cell in (A) prior to laser irradiation. Scale bar = 20 μm .