

## Supporting information

# **Photobactericidal activity of dual dyes encapsulated in silicone enhanced by silver nanoparticles**

*Adnan Patir<sup>a</sup>, Gi Byoung Hwang<sup>a</sup>, Sean Nair<sup>b</sup> Elaine Allan<sup>b</sup> and Ivan P. Parkin<sup>a\*</sup>*

*<sup>a</sup>Materials Chemistry Research Centre, Department of Chemistry, University College London, 20  
Gordon Street, London, WC1H 0AJ, United Kingdom*

*<sup>b</sup>Department of Microbial Diseases, UCL Eastman Dental Institute, University College London, 256  
Gray's Inn Road, London WC1X 8LD, United Kingdom*

\* To whom correspondence should be addressed.

E-mail: [i.p.parkin@ucl.ac.uk](mailto:i.p.parkin@ucl.ac.uk) Tel: 44(0)207 679 4669

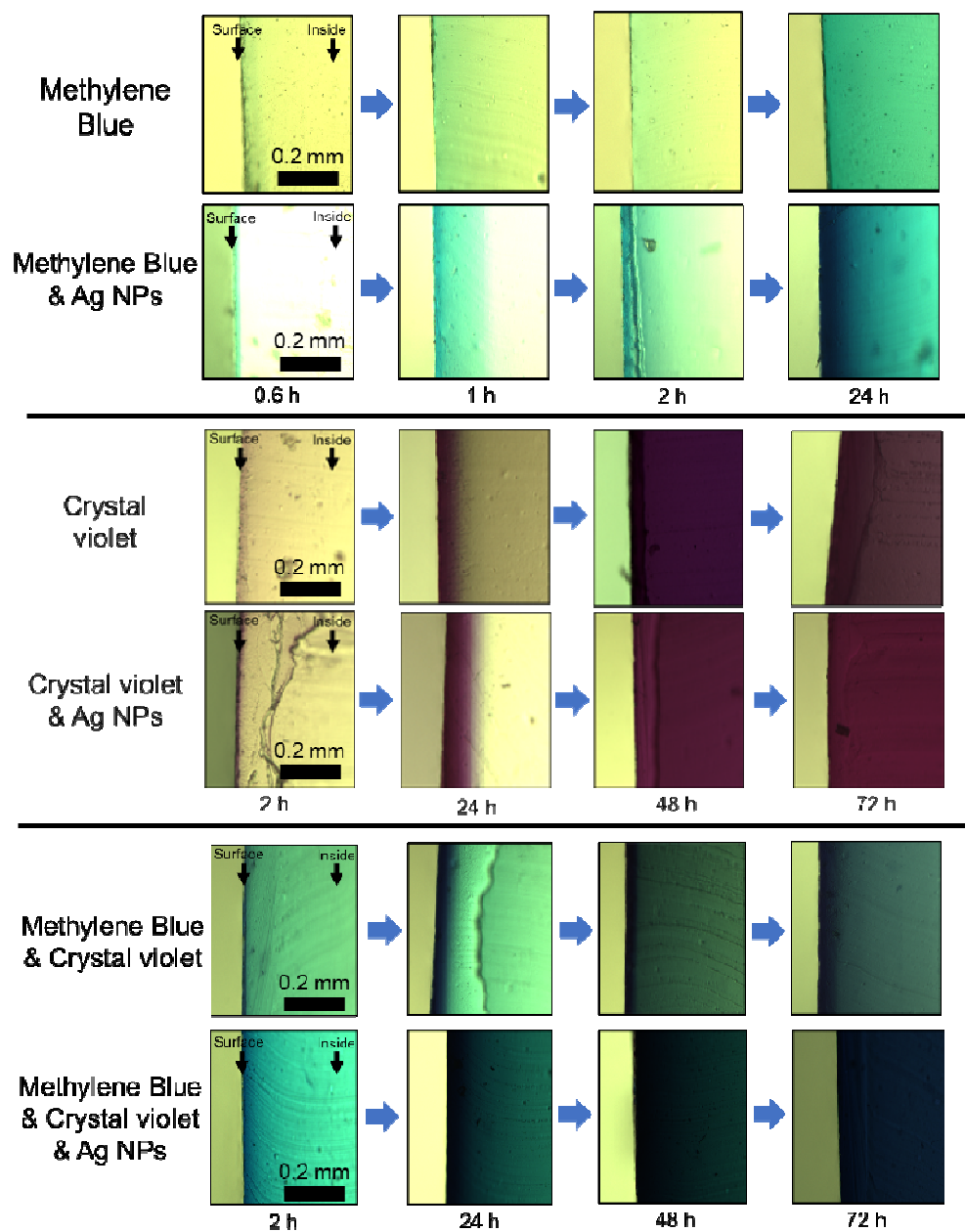


Figure S1. Cross sectional image of dye or nanoparticle and dye encapsulated silicone polymers by optical microscopy.

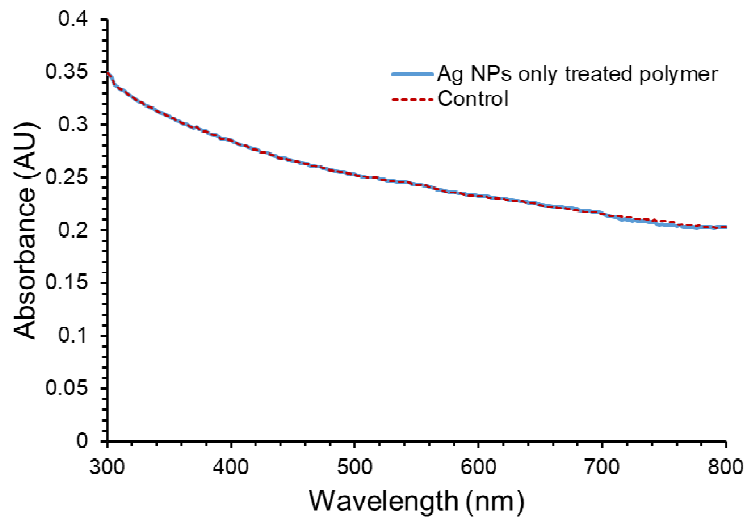


Figure S2. UV-vis spectra of control and Ag NPs only encapsulated silicone

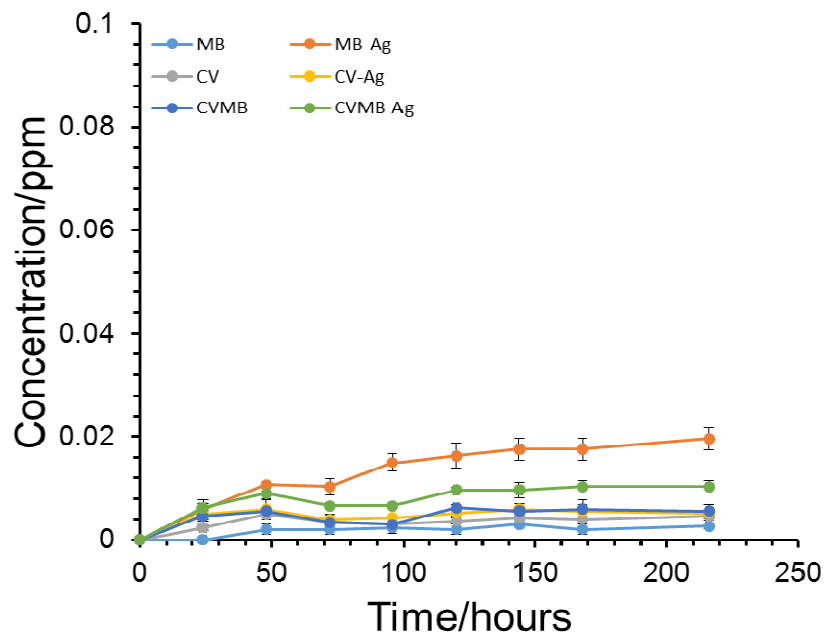


Figure S3. Leaching of MB and CV from silicone polymer into PBS solution. The dye-incorporated samples (10 mm x 10 mm x 1 mm) were immersed in 5 mL of PBS for 216 h.

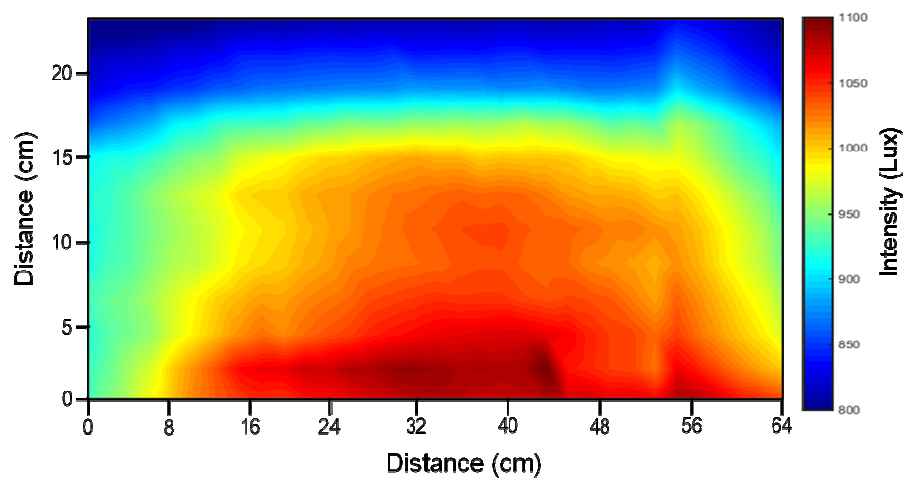


Figure S4. Intensity distribution of white light used for illumination of the dye coated samples. The intensity was measured at a distance of 30 cm using a lux meter. Colour scale bar corresponds from low (dark blue) to high light intensity (red).

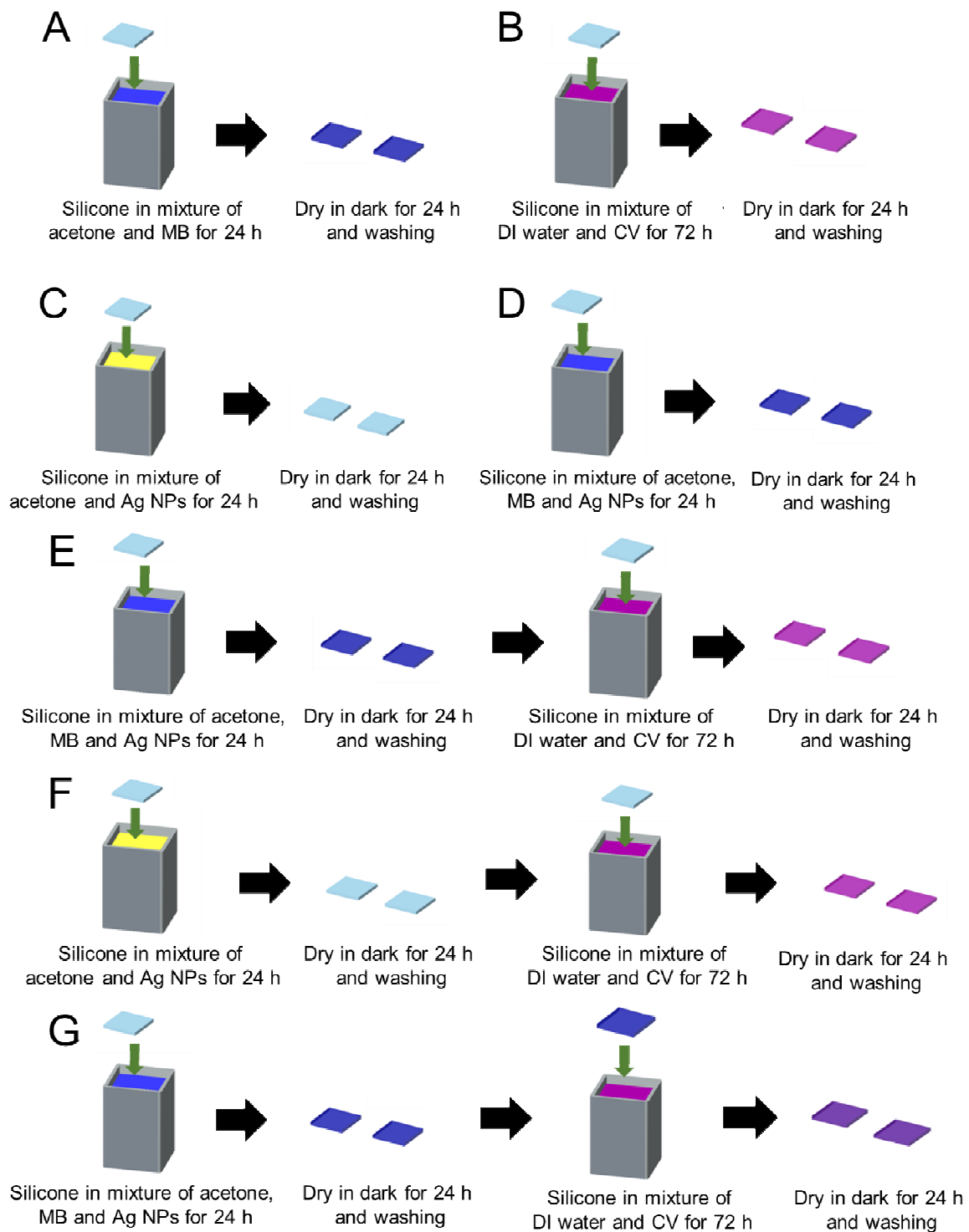


Figure S5. Preparation of (a) MB, (b) CV, (c) Ag NPs, (d) MB-Ag NPs, (e) CVMB, (f) CV-Ag NPs (g) CVMB-Ag NPs encapsulated silicon samples