Spiropyran-based glutamate nanovalve for neuronal stimulation

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Supplementary Information

SUPPLEMENTARY FIGURES



Figure S1. Characterization data of poly(spiropyran methacrylate). (a) Assigned ¹H NMR spectrum in deuterated chloroform, (b) GPC trace conducted with THF eluent (1ml/min flow rate). (c) Images showing the visual appearance of the polymer upon exposure to UV and visible light.



Figure S2. Setup for the optical characterization of the polymeric film.



Figure S3. Top view and cross-section of the device for each processing step. (a) Si wafer (grey) sandwiched between both layers of 500 nm Si₃N₄ (garnet), (b) S1813 resist spin-coated on top side of the device (c), window opened on the resist after being imprinted by a mask, (d) dry etching of the exposed Si₃N₄ layer, (e) wet etching of the Si layer, (f) same stage with the device rotated of 180° to depict a 5-nm layer titanium deposition, (g) a 20-nm gold deposition, and (h) checkboard milled pattern.