

ELECTRONIC SUPPLEMENTARY INFORMATION

Simultaneous Microscale Optical Manipulation, Fabrication and Immobilisation in Aqueous Media

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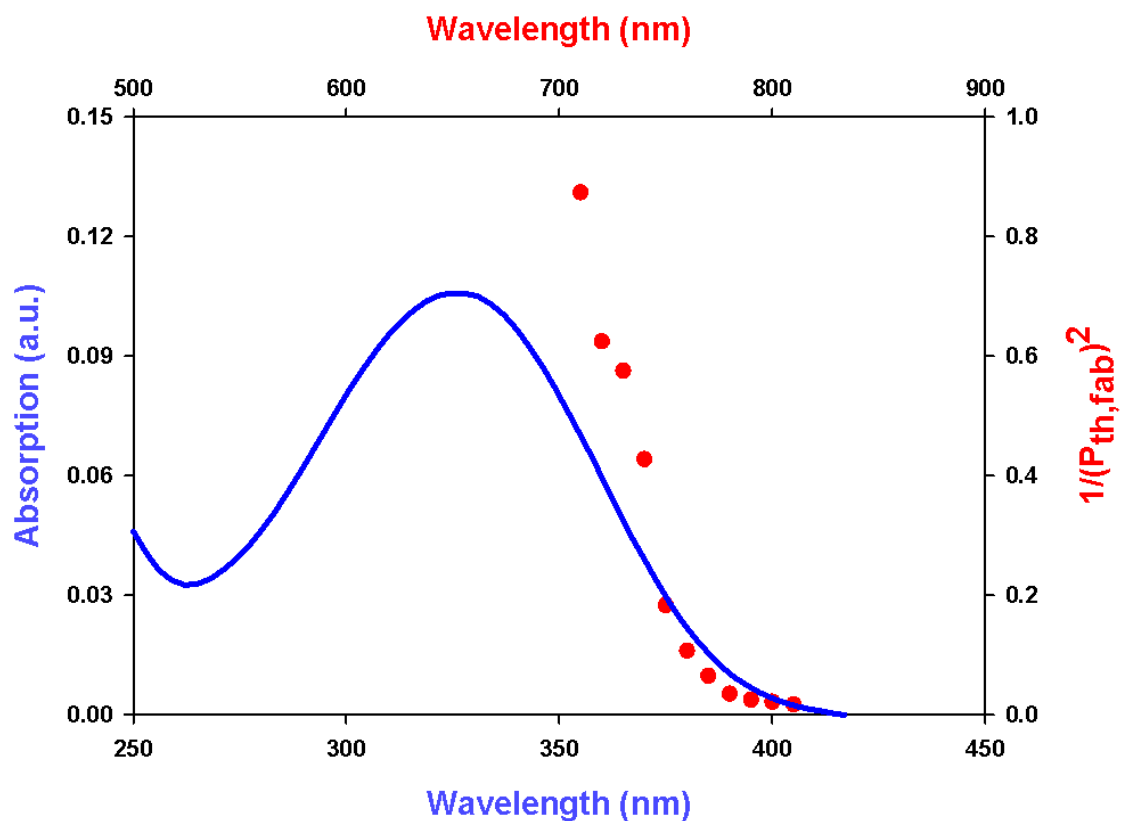
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E.S.I. Fig. 1 - Linear absorption spectrum of MBS (blue) and two photon polymerisation action spectrum of water-soluble acrylic photoresist containing 37.5 wt% ethoxylated-15 trimethylolpropane triacrylate and 1 wt% MBS in DI water (red).

Refractive index of water-soluble acrylic photoresist	1.385
Density of water-soluble acrylic photoresist	1.05 g/cm ³
Viscosity of water-soluble acrylic photoresist	8.09 ± 0.03 cP*
Solubility of MBS in 100 wt% DI water	0.299 ± 0.001 g/cm ³ *
Solubility of MBS in 37.5 wt% ethoxylated-15 trimethylolpropane triacrylate and 62.5 wt% DI water	0.234 ± 0.031 g/cm ³ *

* values are reported to one standard deviation.

Characterisation

The linear absorption spectrum of a 26.6 μM solution of MBS in DI water was measured using a PerkinElmer Lambda 1050 UV/Vis/NIR spectrophotometer. The refractive index of the photoresist was measured using an ABBE-3L refractometer. Viscosity measurements were carried out using a 1C Ubbelohde viscometer at 25 °C. The threshold for polymerisation was determined by exposing a spot in the photoresist with the pulsed laser for 1 s. $P_{th, fab}(\lambda)$ is the minimum average power for which a polymerised spot was visible with the fabrication microscope following exposure at wavelength λ .