

Supporting Information

Highly efficient UV-Vis light activated three-component photoinitiators comprising of *tris(trimethylsilyl)silane* for polymerization of acrylates

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1. Spectroscopic properties of co-initiators used in photopolymerization experiments.

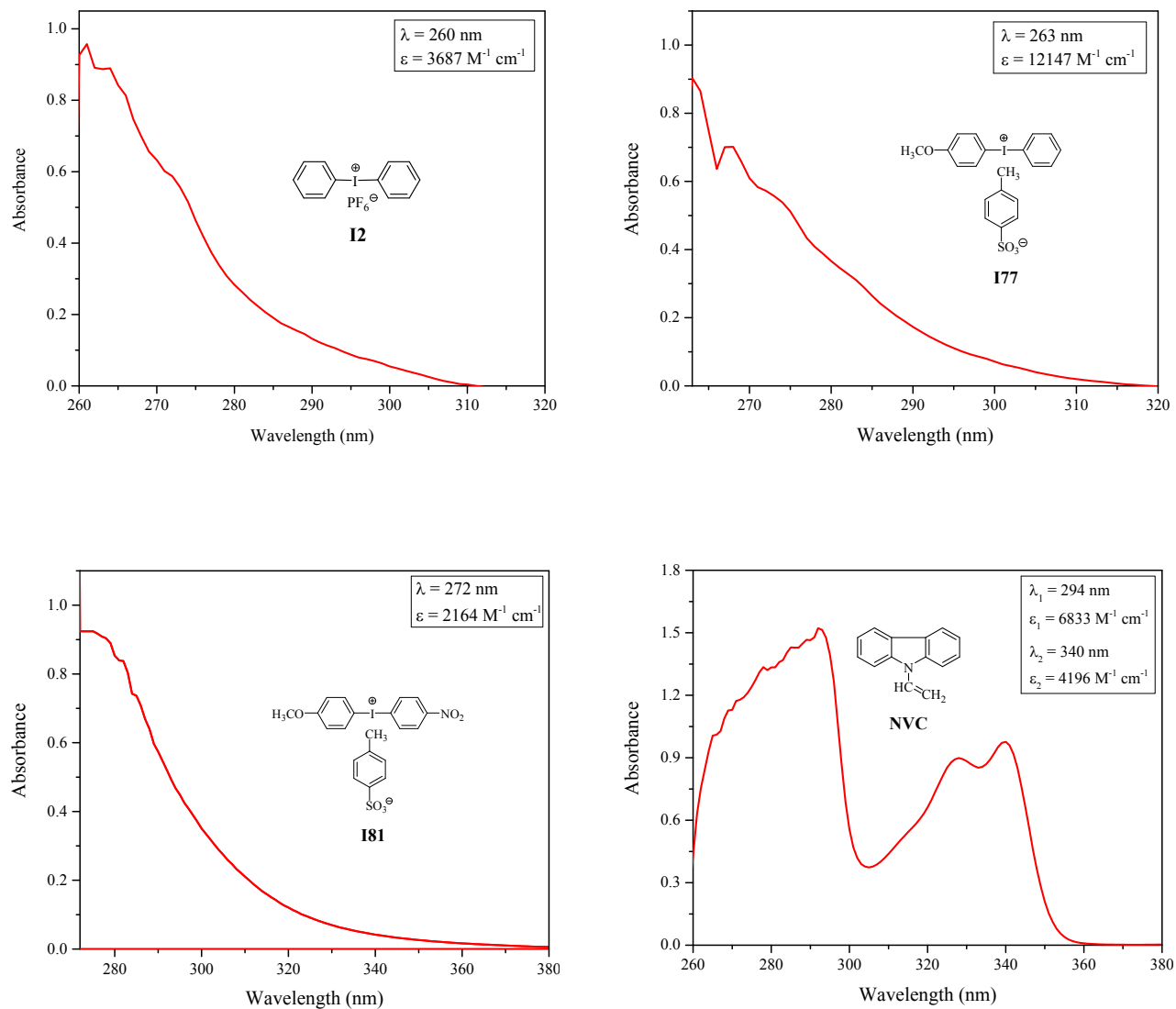


Fig. S1 The normalized absorption spectra of initiators: I2, I77, I81 and NVC in 1-methyl-2-pyrrolidinone (MP), recorded at room temperature.

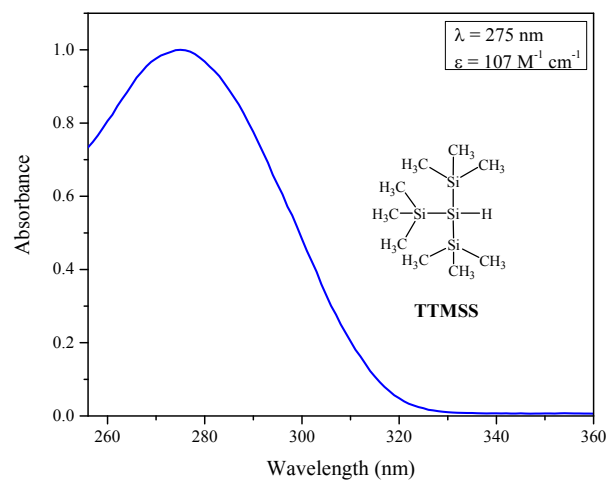
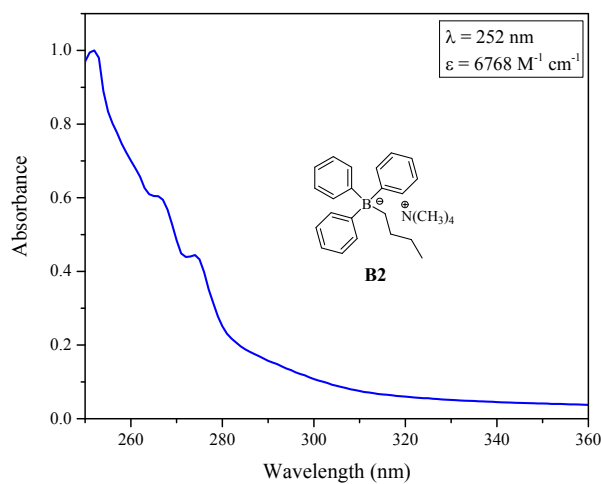
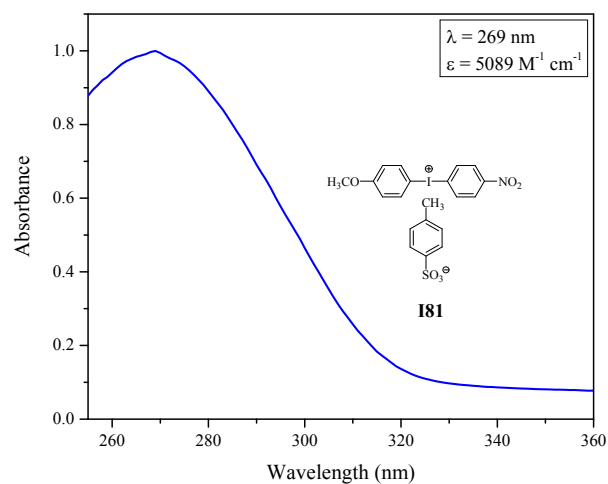
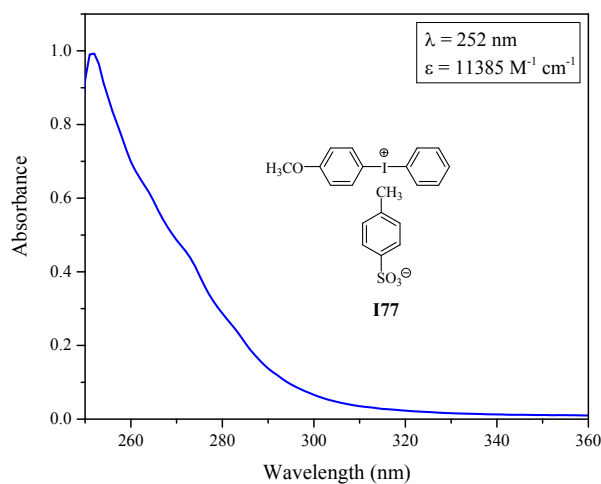
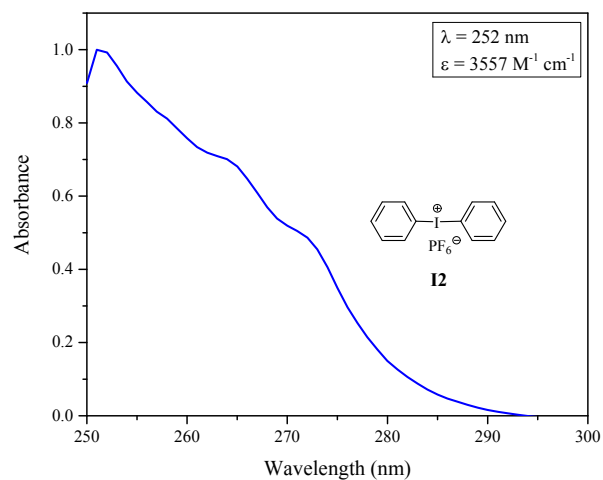
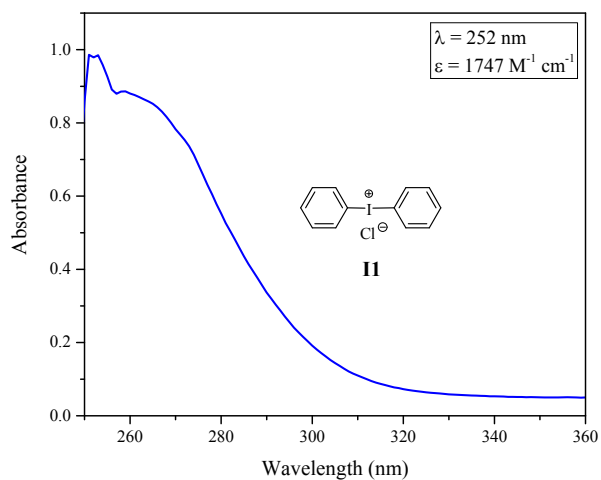


Fig. S2 Normalized absorption spectra of initiators: I1, I2, I77, I81, B2 and TTMSS in ethyl acetate (AcOEt) recorded at room temperature.

2. Emission spectrum of high-pressure mercury lamp (OmniCure S2000)

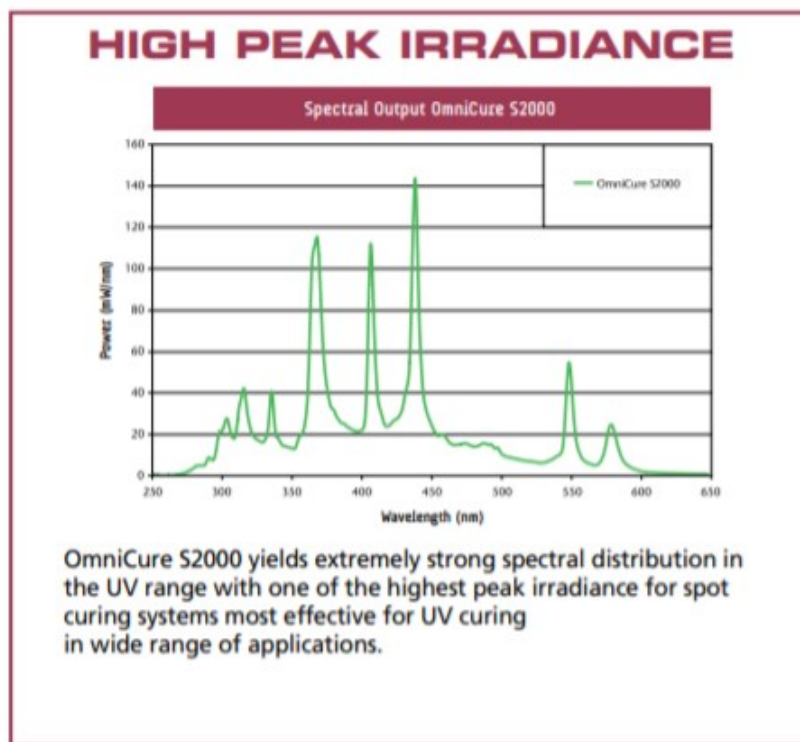


Fig. S3 Emission spectrum of the lamp OmniCure S2000.

3. Kinetic effect registered depending of type of reference sample.

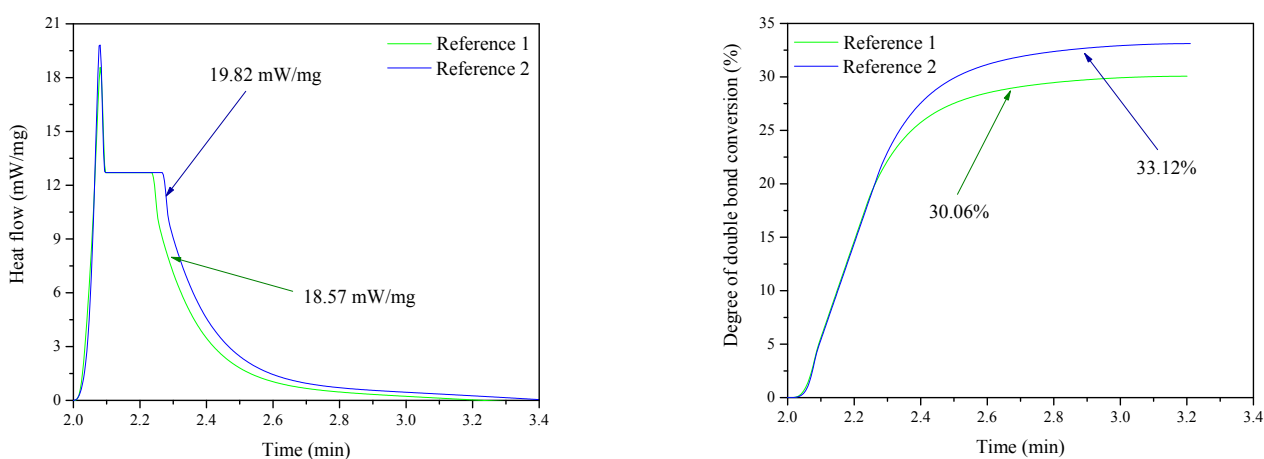


Fig. S4 The kinetic curves registered during radical polymerization of TMPTA initiated by three-component photoinitiating systems containing SQG1 dye as sensitizer, I81 and TTMSS as co-initiators. The concentration of components of PISs was 2×10^{-3} M. The heat effects were recorded in the presence of different polymerization mixture: Reference 1 - SQG1/MP/TMPTA; Reference 2 – MP/TMPTA.

4. Cyclic voltammetry curves showing oxidation and reduction processes of selected components of photoinitiating systems in acetonitrile.

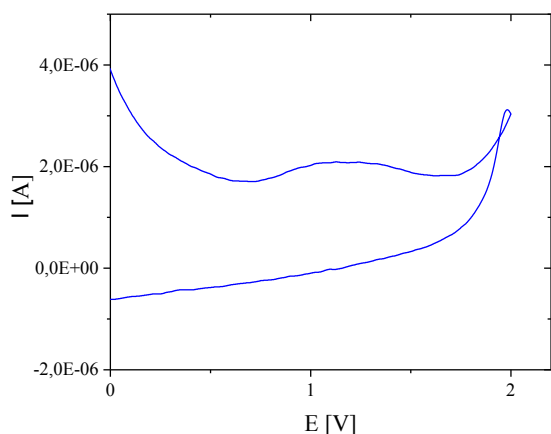


Figure S5 Cyclic voltammogram curves of the 1,3-bis(phenylamino)squaraine oxidation in acetonitrile.

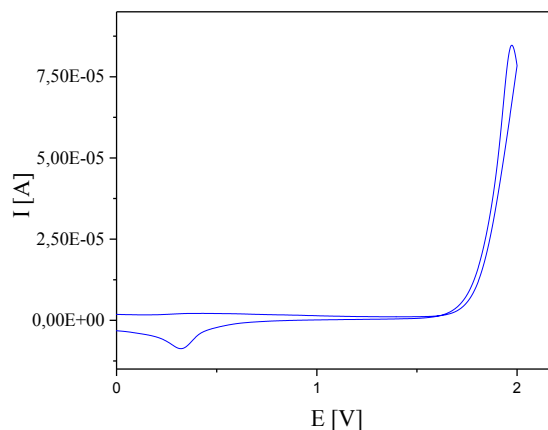


Figure S6 Cyclic voltammogram curves of the tris(trimethylsilyl)silane oxidation in acetonitrile.

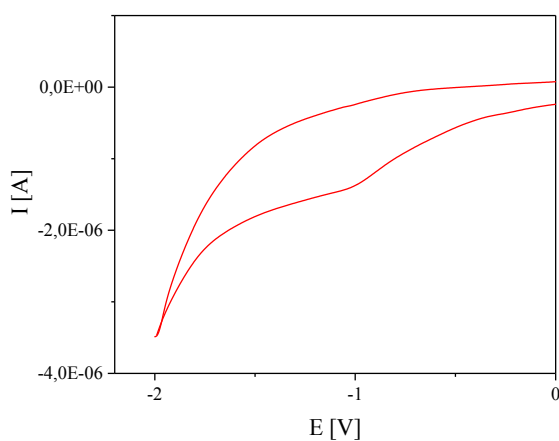


Figure S7 Cyclic voltammogram curves of the diphenyliodonium hexafluorophosphate reduction in acetonitrile.

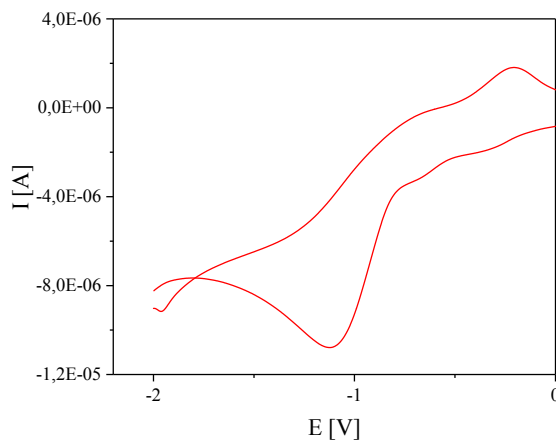


Figure S8 Cyclic voltammogram curves of the (4-methoxyphenyl)-phenyliodonium *p*-toluenesulfonate reduction in acetonitrile.

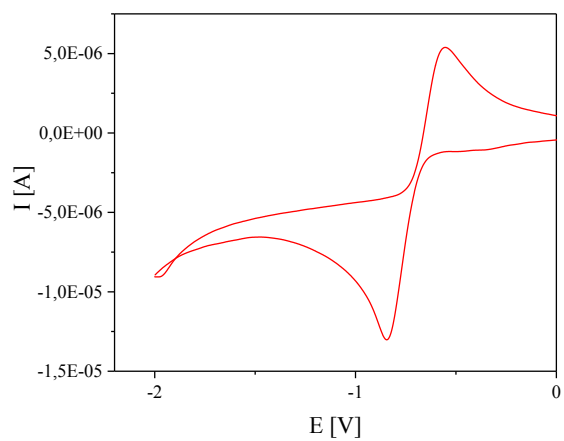


Figure S9 Cyclic voltammogram curves of the (4-methoxyphenyl)-(4-nitrophenyl)iodonium *p*-toluenesulfonate reduction in acetonitrile

