SUPPORTING INFORMATION FOR:

Two-Photon Lithography in Visible and NIR Ranges
Using Multibranched-based Sensitizers
For Efficient Acid Generation

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Figure S1. 2PEF spectra of 1 (9 × 10^{-5} M in ACN, \( \lambda_{exc}: 760 \text{ nm} \)) using two distinctive detection configurations. A. The excitation focal point is located in the middle of the cell (1 cm quartz cuvette); B. The excitation focal point is positioned very close to the detection window. In both cases, the 1PEF spectrum was measured using the classical method with a spectrofluorimeter (10^{-6} M in ACN, \( \lambda_{exc}: 370 \text{ nm} \)).

Figure S2. Evolution of the absorption spectrum of 1 (2.4 × 10^{-4} M in degassed ACN) in presence of Ph2I+,PF6- (1.5 × 10^{-3} M) during irradiation at 365 nm. Rhodamine B base (1 × 10^{-5} M) is added as acid indicator.

Figure S3. Representation of frontier molecular orbitals involved in the lowest energy electronic transitions of the chromophores.

Figure S4. Solvatochromic plots of Stokes shift for the chromophores.

Figure S5. Time fluorescence decays of the chromophores recorded at their respective \( \lambda_{fluoro}^{MAX} \); instrumental response function (IRF). Residual graphs relative to single- or bi-exponential fits. (solvent: Hexane).

Figure S6. Plots of log(I_{fluoro} (\lambda_{fluoro}: 475 nm)) vs. log[excitation power] at 500 nm for 3. (THF, c: 1.5 × 10^{-4} M).

Figure S7. Fluorescence spectra of 1 in dichloromethane upon addition of PAG. Inset: Stern-Volmer plots as observed by steady state fluorescence intensities and emission lifetimes.

Figure S8. Comparison of the conversion vs. time curves for cationic photopolymerization of diepoxide films under aerated and laminated conditions. (resin: PAG (1.5 wt %) / 3 (0.15 wt %). \( \lambda_{exc}: 365 \text{ nm} \), Irradiance: 45 mW cm^{-2}).
Figure S1.
Figure S2.
Figure S3.
Figure S4.

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\frac{\varepsilon - 1}{2\varepsilon + 1} - \frac{n^2 - 1}{2n^2 + 1}
\]
Figure S5.
Figure S6.

2.01 ± 0.05
Figure S7.
Figure S8.