

Figure s1. UV-vis spectra of safranin alone and with cointiators

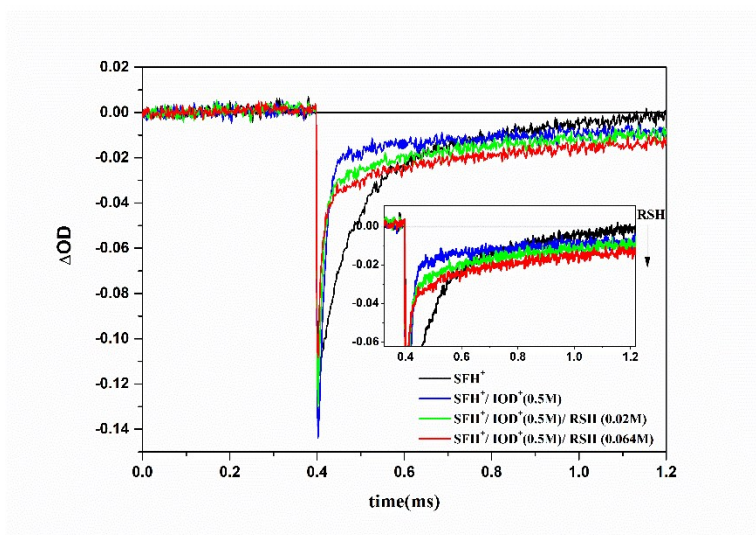


Figure s2. Ground state photobleaching of [SFH⁺] recorded at 520 nm in the presence of IOD⁺ at 0.5 M and various concentrations of RSH ($\lambda_{exc} = 518$ nm, 6-7 mJ/pulse).

Table s1. Photochemical and redox properties of PIS component in acetonitrile.

	$\lambda_{abs}^{max}({}^0\text{SFH}^+)(\text{nm})$	$\lambda_{abs}^{max}({}^3\text{SFH}^+)(\text{nm})$	$\varepsilon(\lambda_{abs}^{max})(\text{L}\cdot\text{mol}^{-1}\cdot\text{cm}^{-1})$	$E_T(\text{eV})$	$E_{\text{Ox}}(\text{V})$	$E_{\text{Red}}(\text{V})$
SFH ⁺	518	820	44000	1.83	0.86	-0.62
IOD ⁺	<375					-0.2
RSH	<375				1.52	