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SUPPORTING INFORMATION

Spectral and kinetic manifestations of chain flexibility and polarity in reversible photoisomerization of spironaphthoxazine-based acrylic copolymers

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Figure 1S. SEM micrographs of the prepared (a) M10E0S, (b) M6E4S, (c) M2E8S and (d) M0E10S latexes



Figure 2S. UV-Vis spectra before (- - -) and after 30 s irradiation (-----) at 365 nm and 5°C for M10E0S (a), M6E4S (b) and M2E8S (c) diluted latexes to 0.5 wt%



Figure 38. Images of some typical solutions and miniemulsion samples before and after UV irradiation (5 °C)



Figure 4S. Normalized absorbance peak area (\blacklozenge and \blacklozenge) and exponential fitting (--- and) curves for the kinetic of SNO \rightleftharpoons MNO photoisomerization in the prepared M-series latexes at the corresponding λ_{max} under UV (365 nm) and visible irradiations for (a) M10E0S, (b) M6E4S and (c) M2E8S



Figure 5S. UV-Vis spectra before (- - -) and after 30 s irradiation(-----) at 365 nm and 5°C for (a) M10A0S, (b) M9A1S and (c) M7A3S solutions in MEK (10⁻⁴ M)



Figure 6S. Normalized absorbance peak area (\diamond and $_{\odot}$) and exponential fitting (--and) curves for the kinetic of SNO \rightleftharpoons MNO photoisomerization in the prepared S-series solutions at the corresponding λ_{max} under UV (365 nm) and visible irradiations for (a) M10A0S, (b) M9A1S and (c) M7A3S