Supplemental Information

Femtosecond Excited State Dynamics of Stilbene–Viologen Complexes with a Weakly Pronounced Charge Transfer

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Fig. S1 *Top panel*: The dynamics of transient absorption spectra of **D** ($C = 5 \times 10^{-4}$ M), which correspond to -80–750 fs delays (red dash lines) and to 1–500 ps delays (black solid lines), after the excitation by 330 nm, 30 fs laser pulse. *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by two-exponential function with characteristic times 56 fs and 240 fs.



Fig. S2 *Top panel*: The dynamics of transient absorption spectra of **A1** ($C = 2 \times 10^{-4}$ M), which correspond to -200–210 fs delays (red dash lines), 260–640 fs delays (black solid lines) and 4–200 ps (blue solid lines), after the excitation by 320 nm, 30 fs laser pulse. *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by three-exponential function with characteristic times 80 fs, 170 fs and 1.5 ps.



Fig. S3 *Top panel*: The dynamics of transient absorption spectra of **A2** ($C = 5 \times 10^{-4}$ M), which correspond to -200–200 fs delays (red dash lines) and 0.59–500 ps delays (black solid lines), after the excitation by 320 nm, 30 fs laser pulse. *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by two-exponential function with characteristic times 70 fs and 1.9 ps.



Fig. S4 *Top panel*: The dynamics of transient absorption spectra of **A3** ($C = 1 \times 10^{-3}$ M), which correspond to -150–145 fs delays (red dash lines) and 2–500 ps delays (black solid lines), after the excitation by 260 nm, 30 fs laser pulse. *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by two-exponential function with characteristic times 61 fs and 2.6 ps.



Fig. S5 *Top panel*: The dynamics of transient absorption spectra of **D**•**A1**•**D** ($C = 5 \times 10^{-4}$ M), which correspond to -200–205 fs delays (red dash lines) and 0.65–3.0 ps delays (black solid lines), after the excitation by 425 nm, 40 fs laser pulse. *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by two-exponential function with characteristic times 150 fs and 750 fs.



Fig. S6 *Top panel*: The dynamics of transient absorption spectra of **D**•**A3** ($C = 3.7 \times 10^{-4}$ M), which correspond to -200–950 fs delays (red dash lines) and 12–150 ps delays (black solid lines), after the excitation by 330 nm, 40 fs laser pulse. *Inset* and *Bottom panel*: The kinetic curves of transient absorption spectra for several wavelengths. The red solid lines represent fitting by four-exponential function with characteristic times 23 fs, 100 fs, 710 fs and 37 ps.