
Artificial photocycle containing protonation and deprotonation process of phenol derivative

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Electrically Supplemental Information

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1. COSY correlations in NOESY spectra of *E*-1 and *E*-2

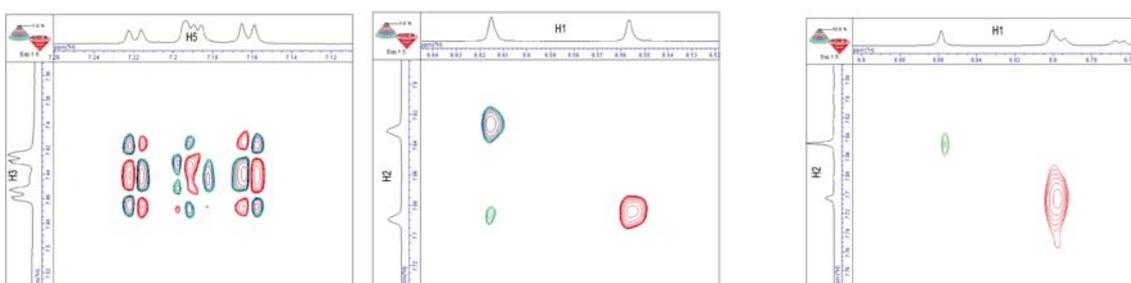


Figure S1 COSY correlations of *E*-1 (left, centre), and *E*-2 (right)

2. Reversible Photoisomerization

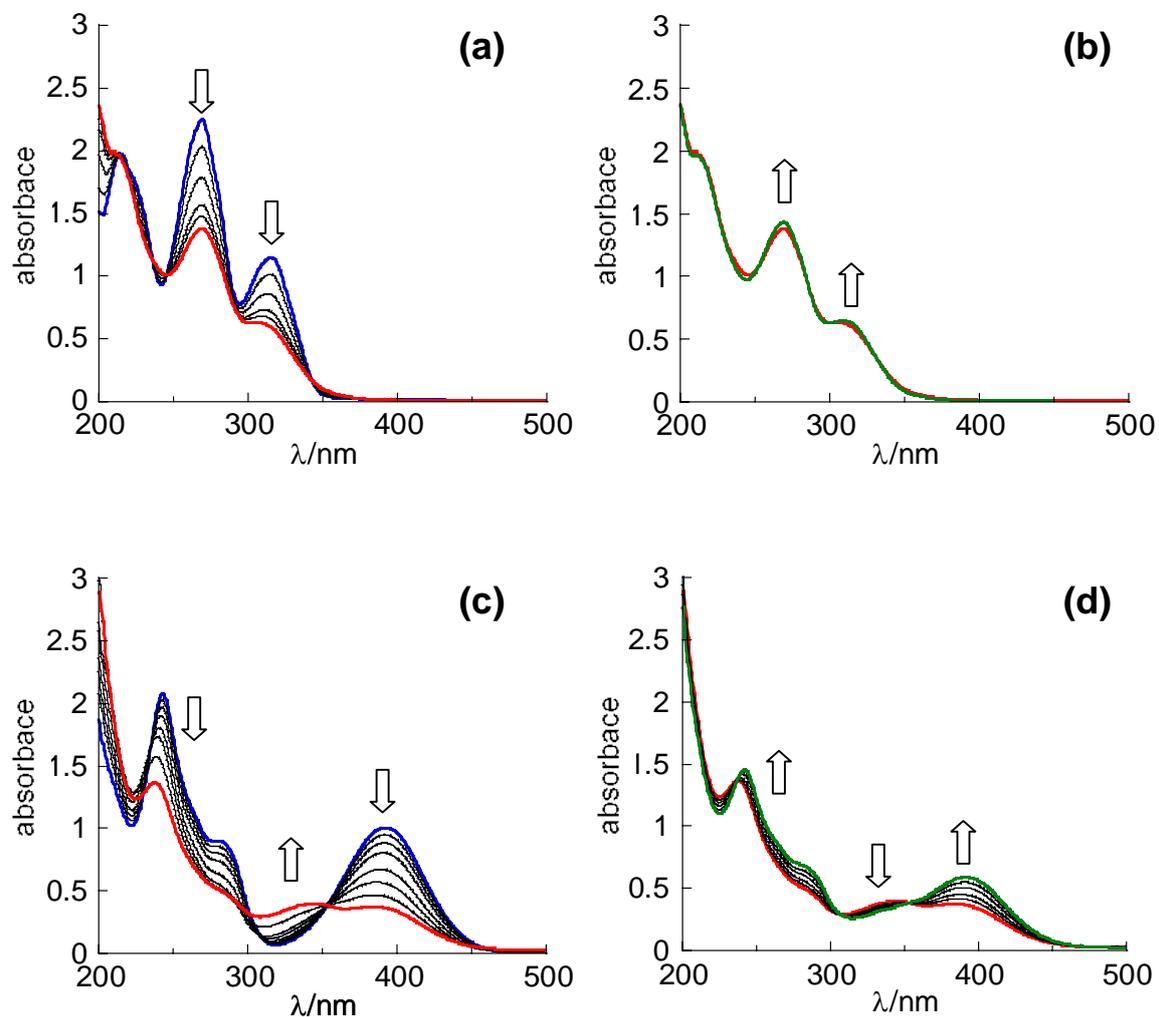


Figure S2 Time-course UV-vis spectrum changes according to a) $E \rightarrow Z$ photoisomerization of $E-1$ by 313 nm irradiation, a) $Z \rightarrow E$ isomerization of $Z-1$ by 365 nm irr. (started from PSS of 313 nm irr.), c) $E \rightarrow Z$ photoisomerization of $E-2$ by 405 nm irr., and d) $Z \rightarrow E$ isomerization of $Z-2$ by 313 nm irr. (started from PSS of 405 nm irr.), 1 mM in acetonitrile solution.

3. Schematic illustration of UV-vis titration

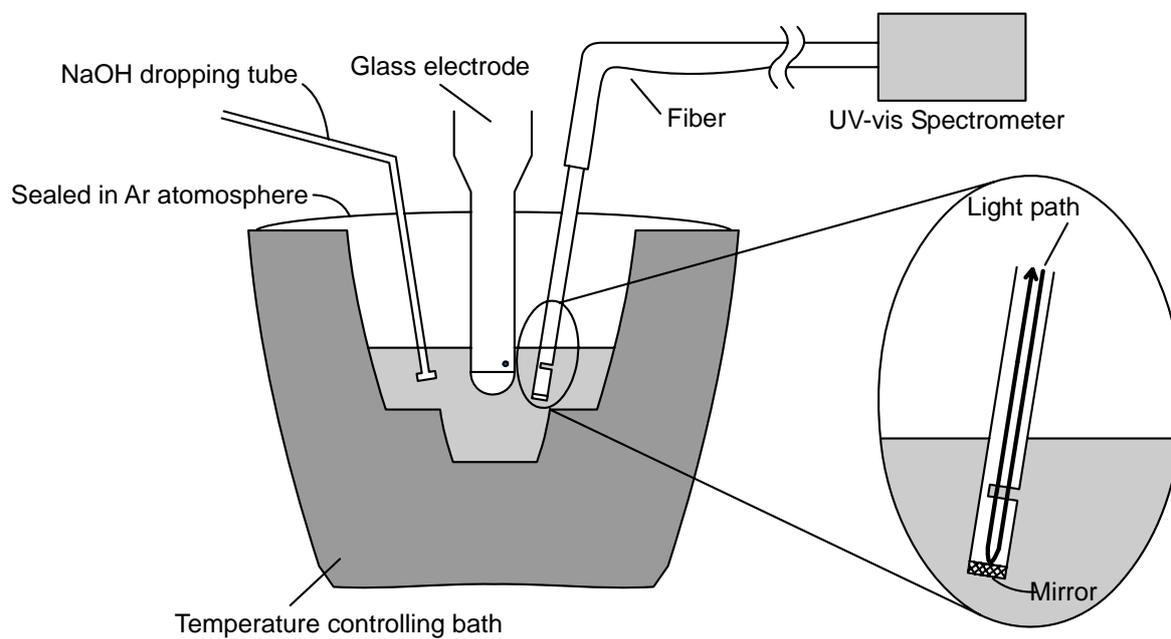


Figure S3 Schematic illustration of potentiometric titration traced by UV-vis spectrum.