## **Supporting Information for:**

## A push-pull 4a,4b-dihydrophenanthrene

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6 figures



Supporting Figure 1: Data matrix for Id. Data was collected at arbitrary intervals of irradiation time and was not adjusted for parameters such as light intensity.



Supporting Figure 2a: Three main eigenvectors obtained from SVD of the data matrix. The abscissa is in the form of data points.



Supporting Figure 2b: Remaining eigenvectors obtained from SVD of the data matrix. The abscissa is in the form of data points.



**Supporting Figure 3:** Deconvoluted data for **IId**. The deconvoluted spectrum of *t*-**Id** is compared to that of an authentic spectrum obtained independently.



**Supporting Figure 4:** Concentration vectors for *t*-Id, *c*-Id and IId. The abscissa is not linear time of irradiation time and is not adjusted for other parameters such as light intensity.



Supporting Figure 5: Data matrix for Ic. Data was collected at arbitrary intervals of irradiation time and was not adjusted for parameters such as light intensity.



Supporting Figure 6: Data matrix for Ie. Data was collected at arbitrary intervals of irradiation time and was not adjusted for parameters such as light intensity.