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Effect of Environment on Single-Photochromic-Molecule SATOSHI YOKOJIMA, Mitsubishi Chemical Group Science and Technology Research Center, INC. and CREST-JST, YASUTAKA FUJIU, MASANORI TACHIKAWA, Quantum Chemistry Division, Graduate School of Science, Yokohama-city University, JUN-WEI SHEN, QI GAO, PAUL TCHOUPE, TAKAO KOBAYASHI, AKINORI MURAKAMI, MITSURU YONEYAMA, KATSUYA KANDA, SHINICHIRO NAKAMURA, Mitsubishi Chemical Group Science and Technology Research Center, INC. and CREST-JST, TOSHIKAZU EBISUZAKI, Riken, TUYOSHI FUKAMINATO, MASAHIRO IRIE, Department of Chemistry and Biochemistry, Graduate School of Engineering, Kyushu University — Recent experimental results on the photochromic reactions of diarylethene derivatives at the single-molecule level by using a fluorescence technique T. Fukaminato, T. Sasaki, T. Kawai, N. Tamai, and M. Irie, J. Am. Chem. Soc. 126 (2004) 14843; M. Irie, T. Fukaminato, T. Sasaki, N. Tamai, and T. Kawai, Nature 420 (2002) 759.] is analyzed by the quantum chemical calculations and the molecular dynamics calculations.

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