Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Materials

A photoactive porous metal-organic complex: synthesis, crystal morphology and the influence of photocycloaddition on fluorescence property and adsorption behavior

Li-Xuan Cai,[ac] Cheng Chen,[a] Bin Tan,[ac] Ya-Jun Zhang,[ac] Xiao-Dong Yang[ac] and Jie Zhang*[ab]

[a]*State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter, Fuzhou, Fujian 350002 P. R. China, Fax: (+86) 591-83710051, E-mail: zhangjie@fjirsm.ac.cn.*

[b]*School of Chemistry, Beijing Institute of technology, Beijing, 100081, P. R. China.*

[c]*University of Chinese Academy of Sciences, Beijing 100049, P. R. China.*

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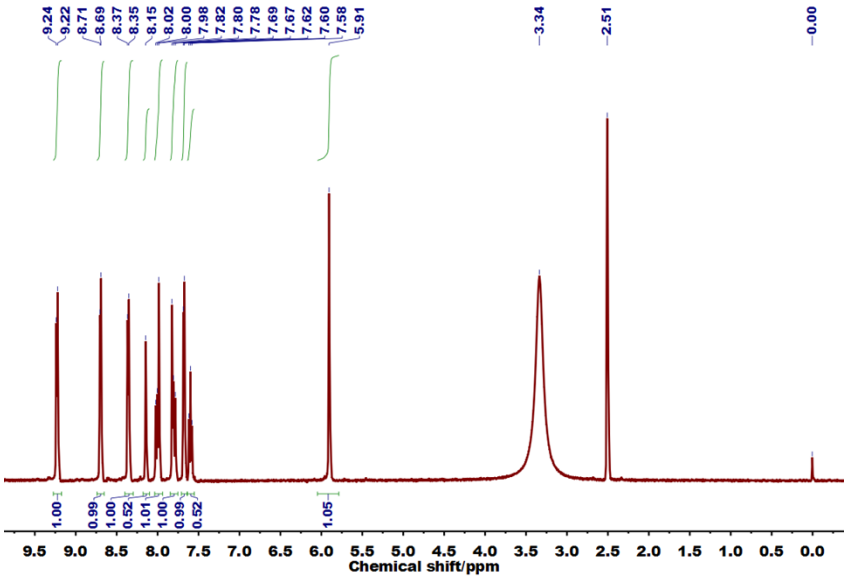


Fig.S1 ^{1}H NMR spectrum for *m*-HBCbpe·Cl in d6-DMSO.

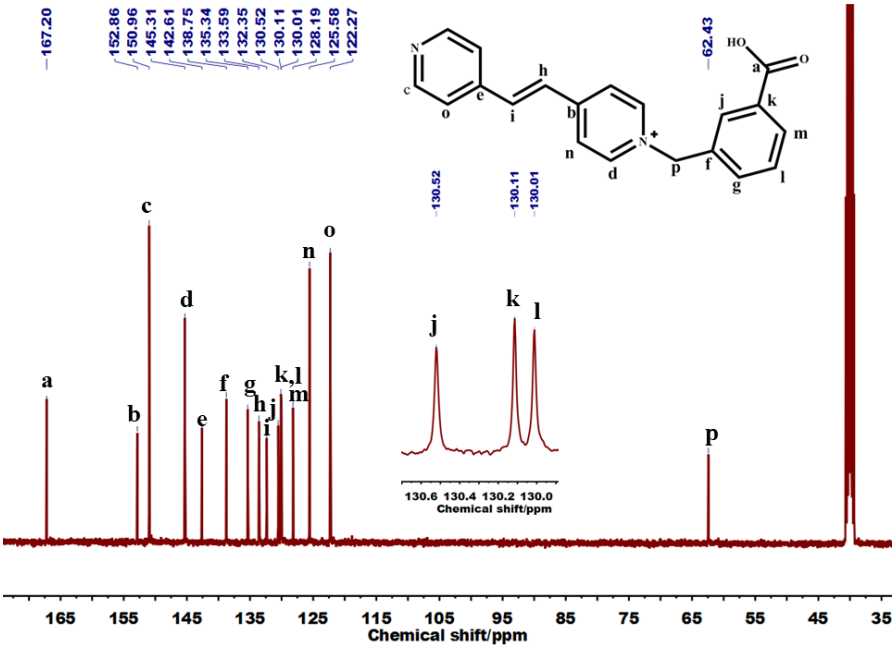


Fig.S2 ^{13}C NMR spectrum for *m*-HBCbpe·Cl in d6-DMSO.

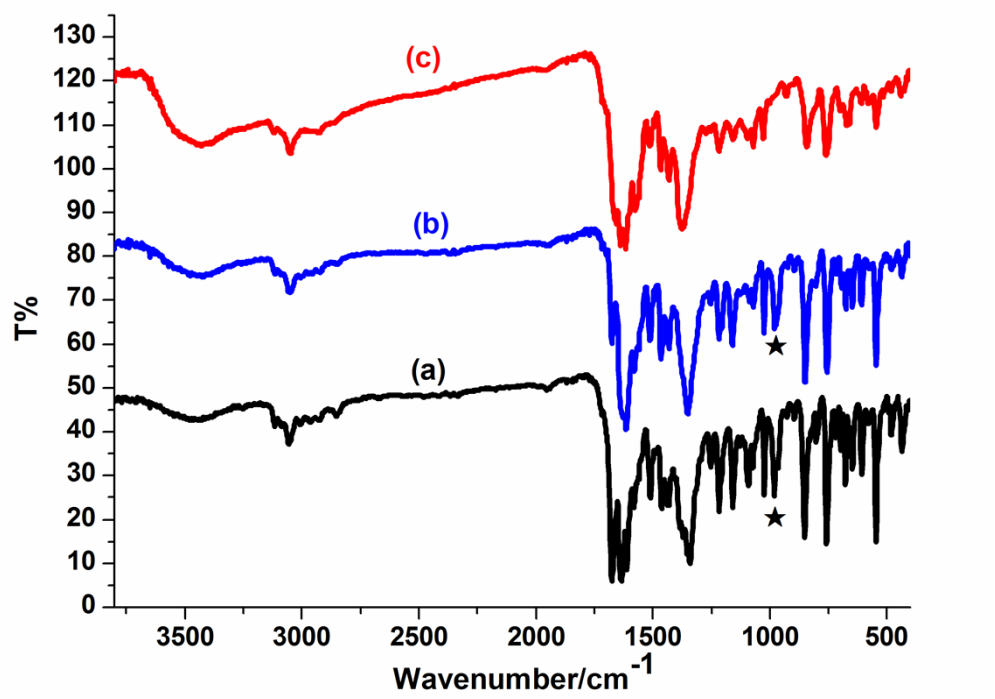


Fig.S3 IR spectra of **1** (a), desolventized sample **1'** (b), and irradiated sample **1**-i (c).

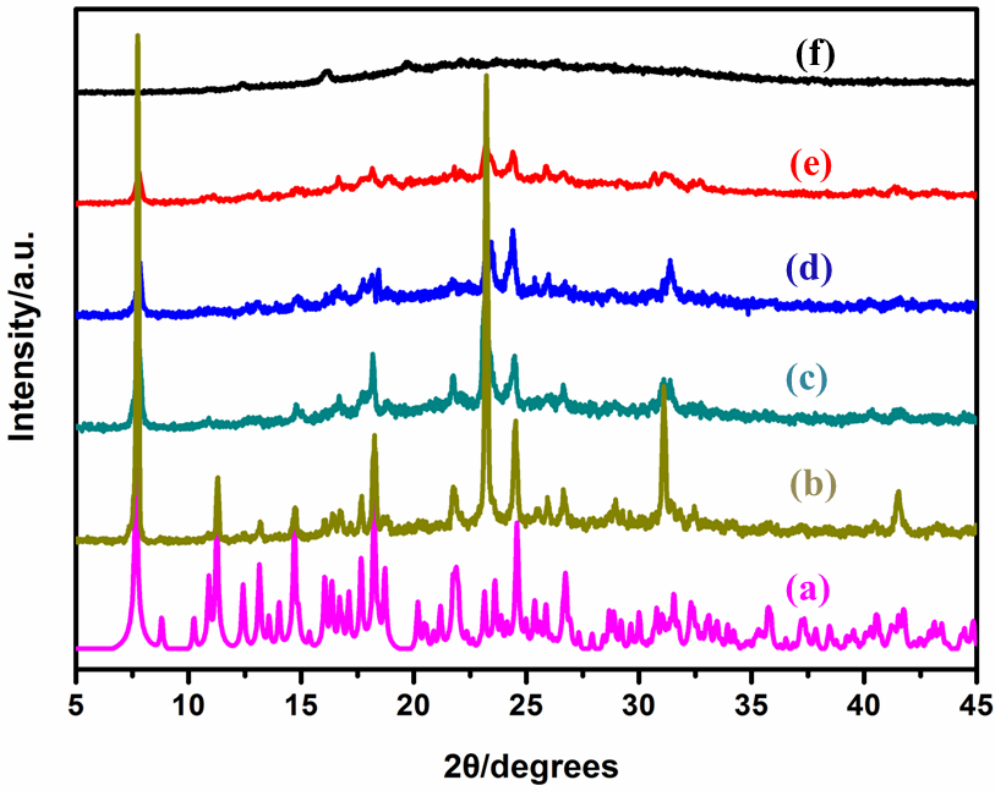


Fig.S4 PXRD patterns of simulated **1** (a), as-synthesized **1** (b), **1** exposed to UV light for 2 h (c), **1** exposed to UV light for 4 h (d), **1** exposed to UV light for 6 h (e), **1** is exposed to UV light for 38 h (f).

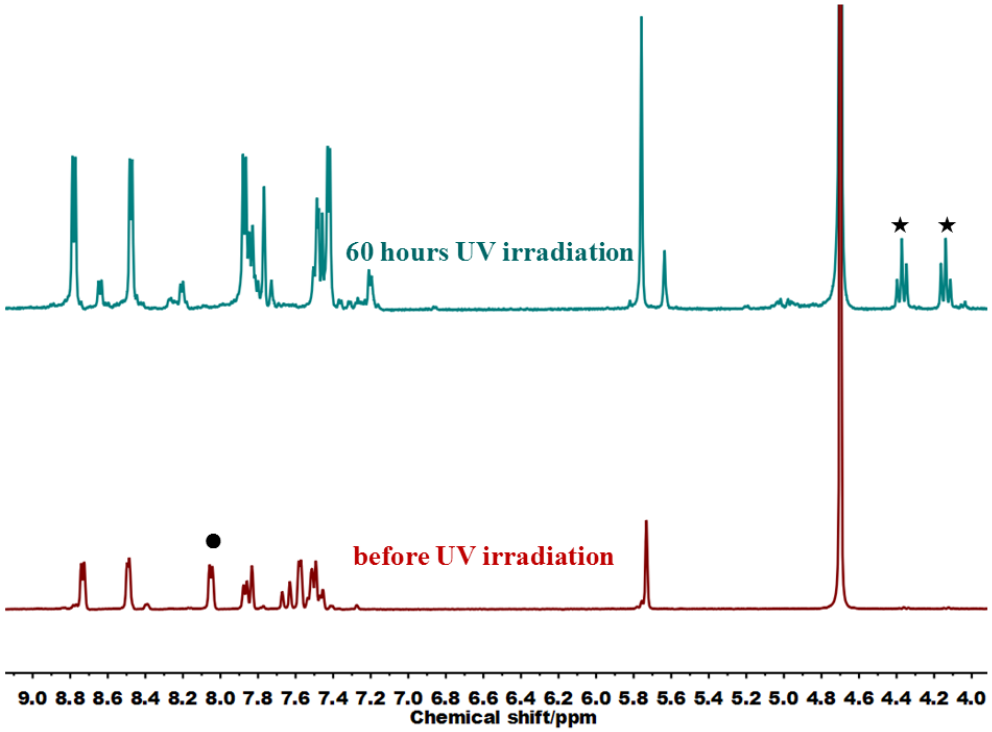


Fig.S5 ^{1}H NMR spectra of *m*-BCbpe in D_2O before and after 365 nm UV irradiation for 60 hours. The vinyl and cyclobutane protons are represented by (●) and (★), respectively. It shows that almost complete conversion has taken place.

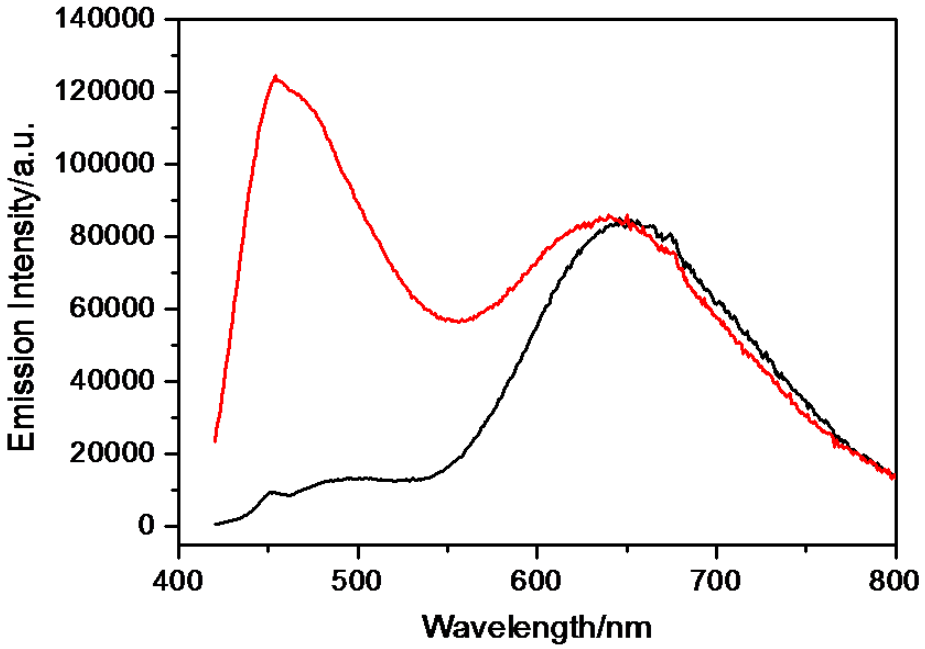


Fig.S6 Emission profiles of *m*-BCbpe (black line) and its photodimer product obtained through exposing the sample to 365 nm UV light for 60 hours (red line) in H_2O (λ_{ex} = 390 nm).

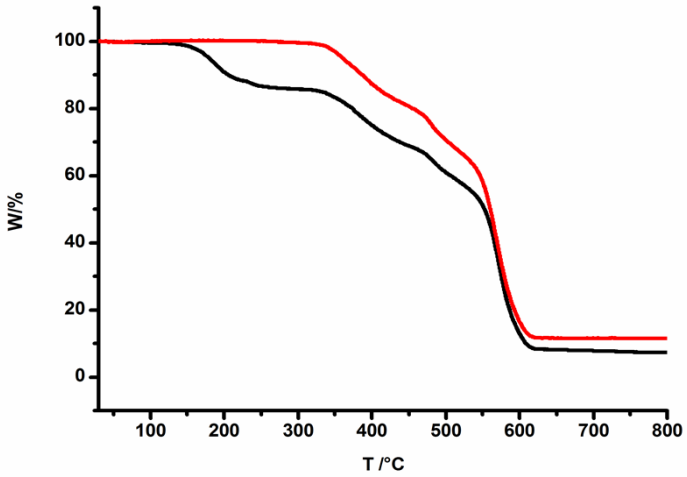


Fig.S7 The TG Plots of compound **1** (black) and desolventized sample **1′** (red).

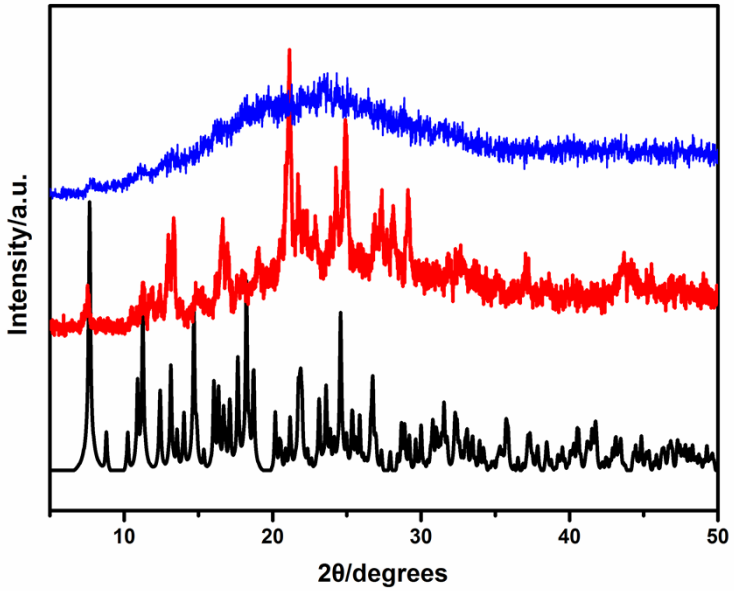


Fig.S8 PXRD patterns of simulated **1** (black), desolventized sample **1′** (red) and irradiated sample **1′**-i after activation (blue).

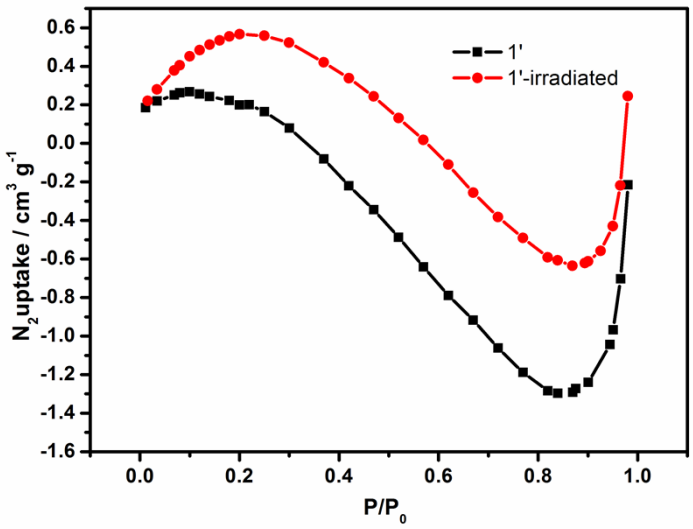


Fig.S9 N_2 sorption isotherms for desolventized sample **1′** (black) and irradiated sample **1′-i** (red).

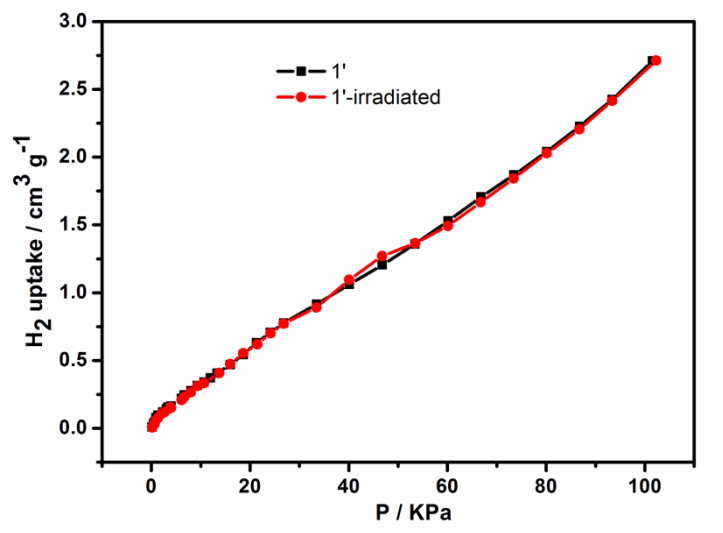
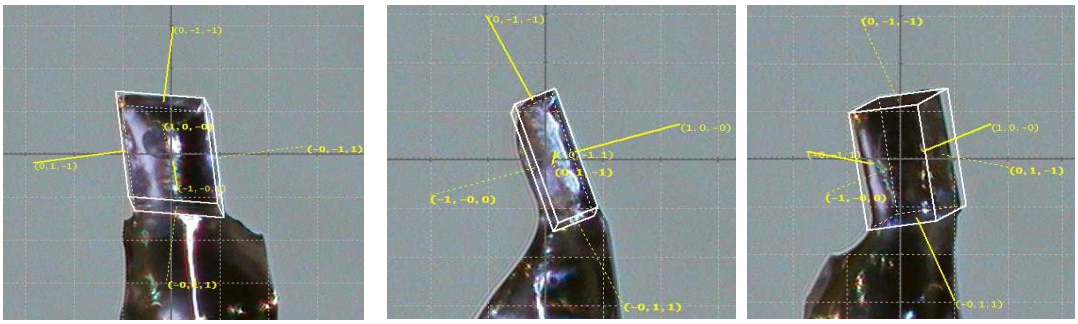


Fig.S10 H_2 sorption isotherms for desolventized sample **1′** (black) and irradiated sample **1′-i** (red).



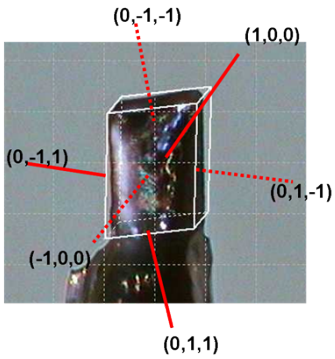


Fig.S11 Face indexing images of the crystal **1**.

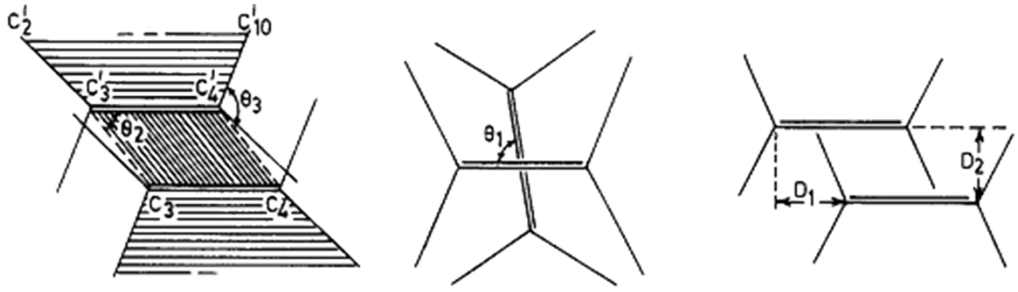


Chart S1. Definitions of the Parameters Usually Considered To Be Geometric Criteria for [2+2] Photodimerization of Double Bonds (According to Ref: V.Ramamurthy, K.Venkatesan, *Chem. Rev.* **1987**, 87, 433–481; θ3 is the Angle between the >C=C< and C=C-C=C Planes).