

## **Electronic Supplementary Information**

### **Solid-State Luminescence of Tetraphenylpyrene Derivatives: Mechano / Vapochromic Luminescence of 1,3,6,8-Tetra(4'-carboxyphenyl)pyrene**

Shingo Yamaguchi, Isao Yoshikawa, Toshiki Mutai and Koji Araki\*  
*Institute of Industrial Science, University of Tokyo, 4-6-1 Komaba, Megur-ku, Tokyo  
153-8505, Japan. E-mail: araki@iis.u-tokyo.ac.jp*

---

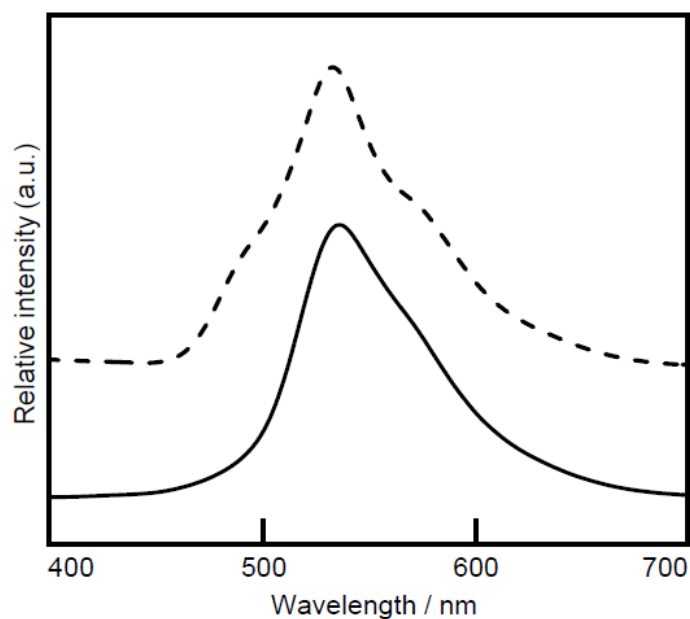
Page 2

**Fig. S1.** Emission spectra of the powdery solid and a thin film of **3**.

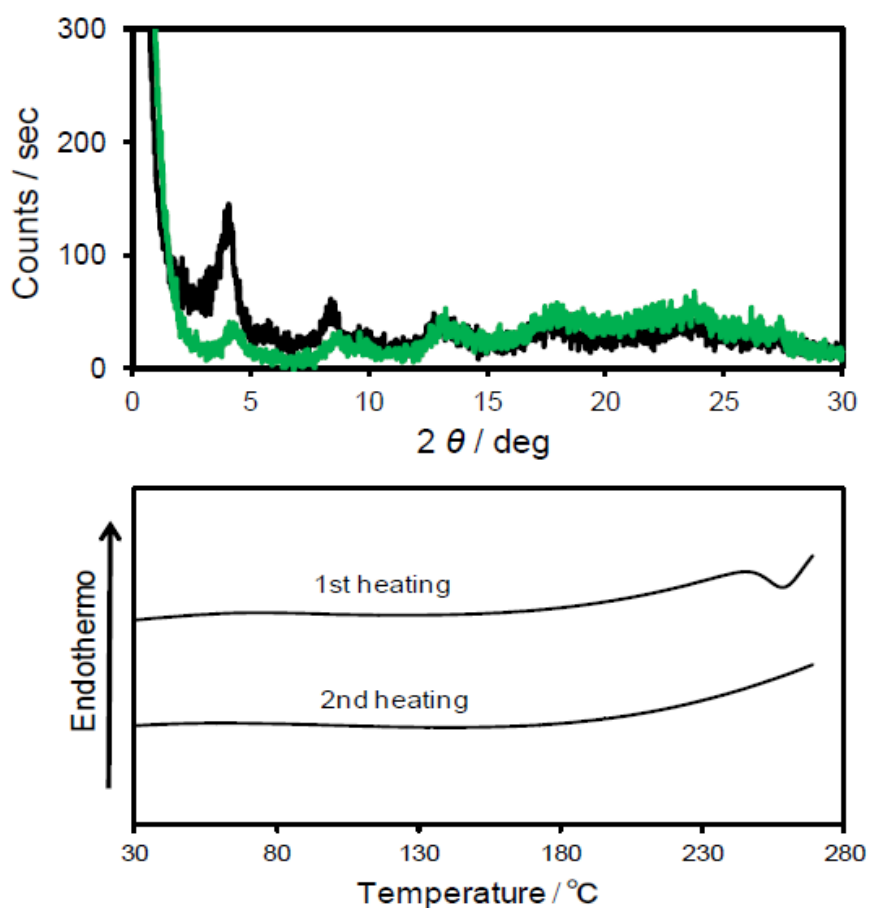
**Fig. S2.** The XRD and DSC profiles of **3**.

Page 3

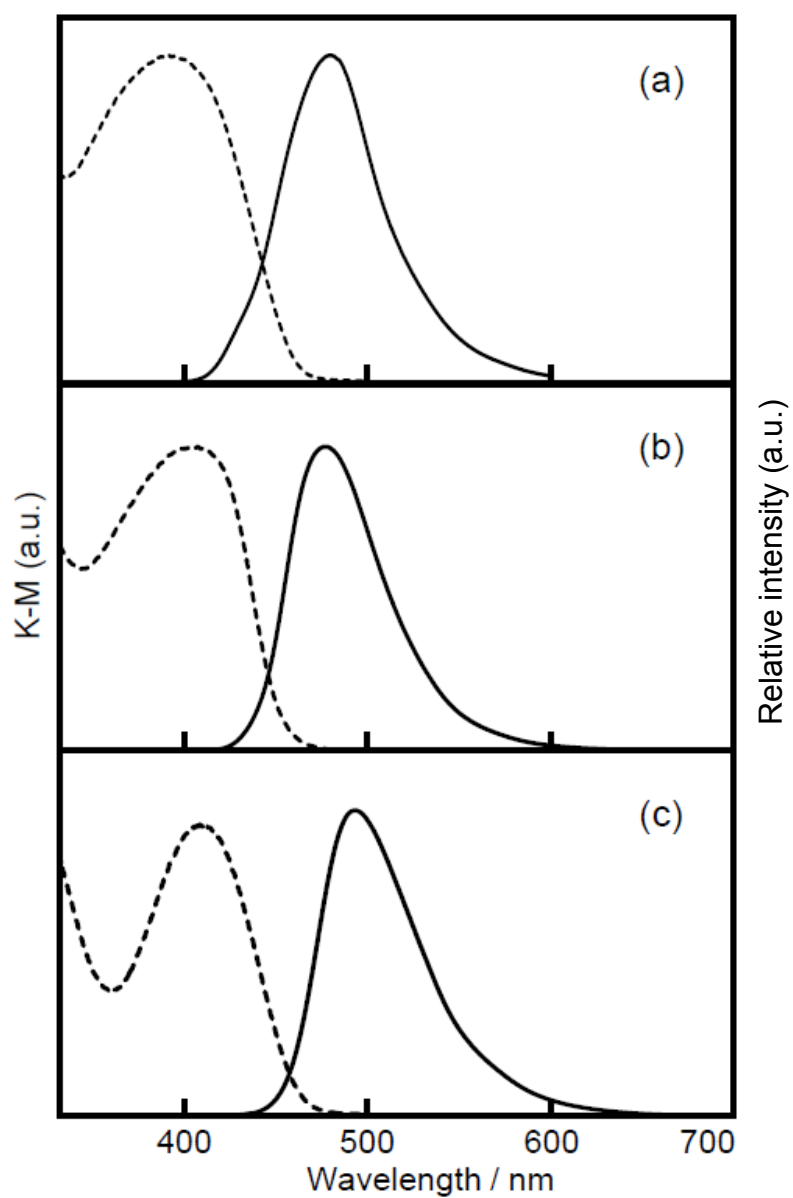
**Fig. S3.** Solid-state absorption and luminescence spectra of **1–3** after being ground.



**Fig. S1.** Emission spectra of (—) the powdery solid and (---) a thin film of **3**.



**Fig. S2.** Upper: The XRD profiles of **3** before (black) and after (green) being ground. Lower: The DSC profiles of **3**.



**Fig. S3.** Solid-state absorption and luminescence spectra of (a) **1**, (b) **2**, and (c) **3** after being ground.