

Supporting Information

Ferroelectric and luminescence properties in zinc(II) and platinum(II) soft complexes

Ryohei Akiyoshi,^a Yuma Hirota, Daisuke Kosumi,^{b,c} Ryo Ohtani,^a Masaaki Nakamura,^a Leonard F. Lindoy^d and Shinya Hayami^{*ac}

^a Department of Chemistry, Graduate School of Science and Technology, Kumamoto University, 2-39-1 Kurokami, Chuo-ku, Kumamoto 860-0855, Japan.
Email: hayami@kumamoto-u.ac.jp

^b Department of Physics, Graduate School of Science and Technology, Kumamoto University, 2-39-1 Kurokami, Chuo-ku, Kumamoto 860-0855, Japan.

^c Institute of Pulsed Power Science (IPPS), Kumamoto University, 2-39-1 Kurokami, Chuo-ku, Kumamoto 860-8555, Japan

^d School of Chemistry, The University of Sydney, NSW 2006, Australia

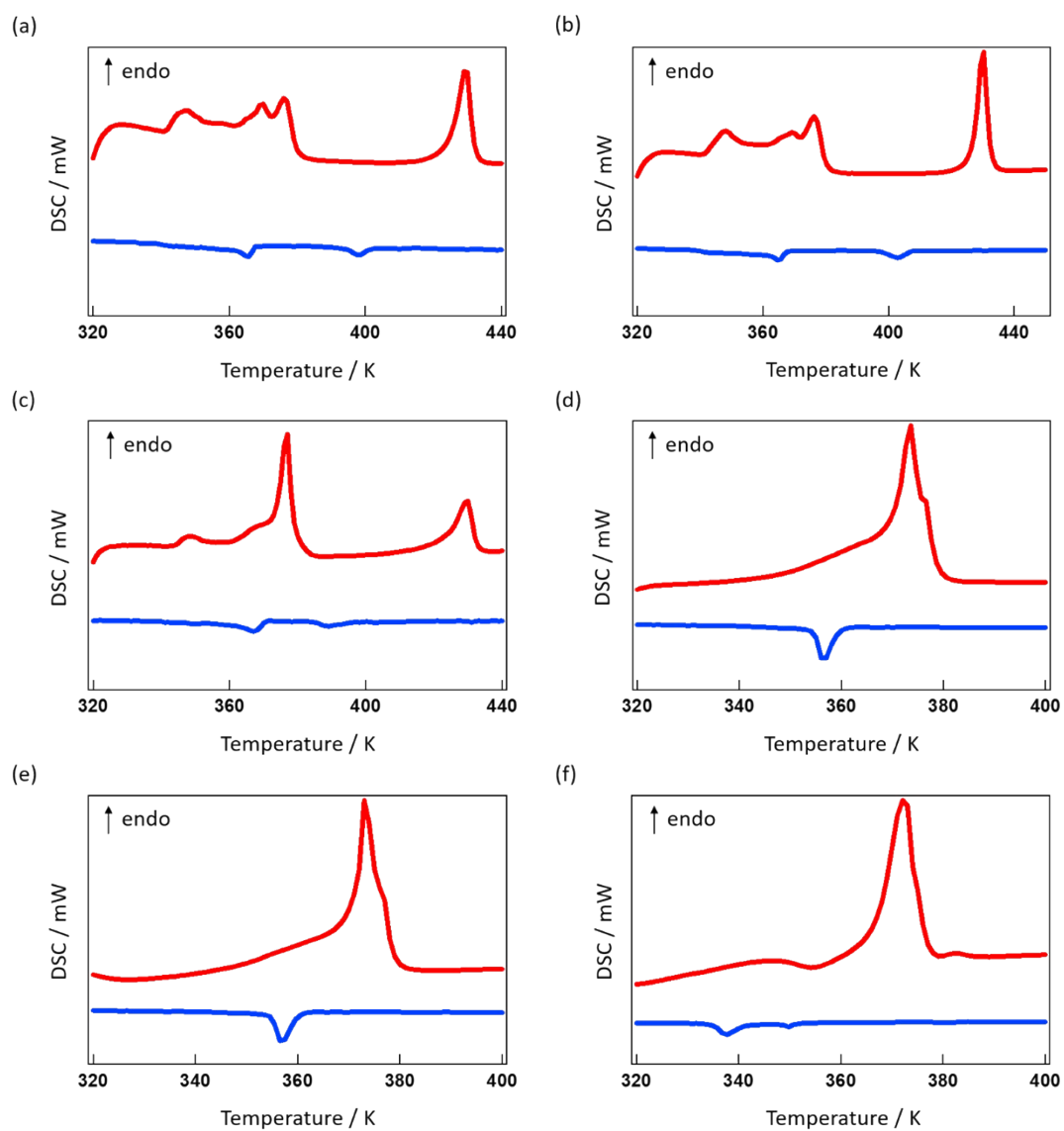


Fig. S1 DSC curves for (a) 1-R, (b) 1-S, (c) 1-rac, (d) 2-R, (e) 2-S and (f) 2-rac. (red line: heating process, blue line: cooling process)

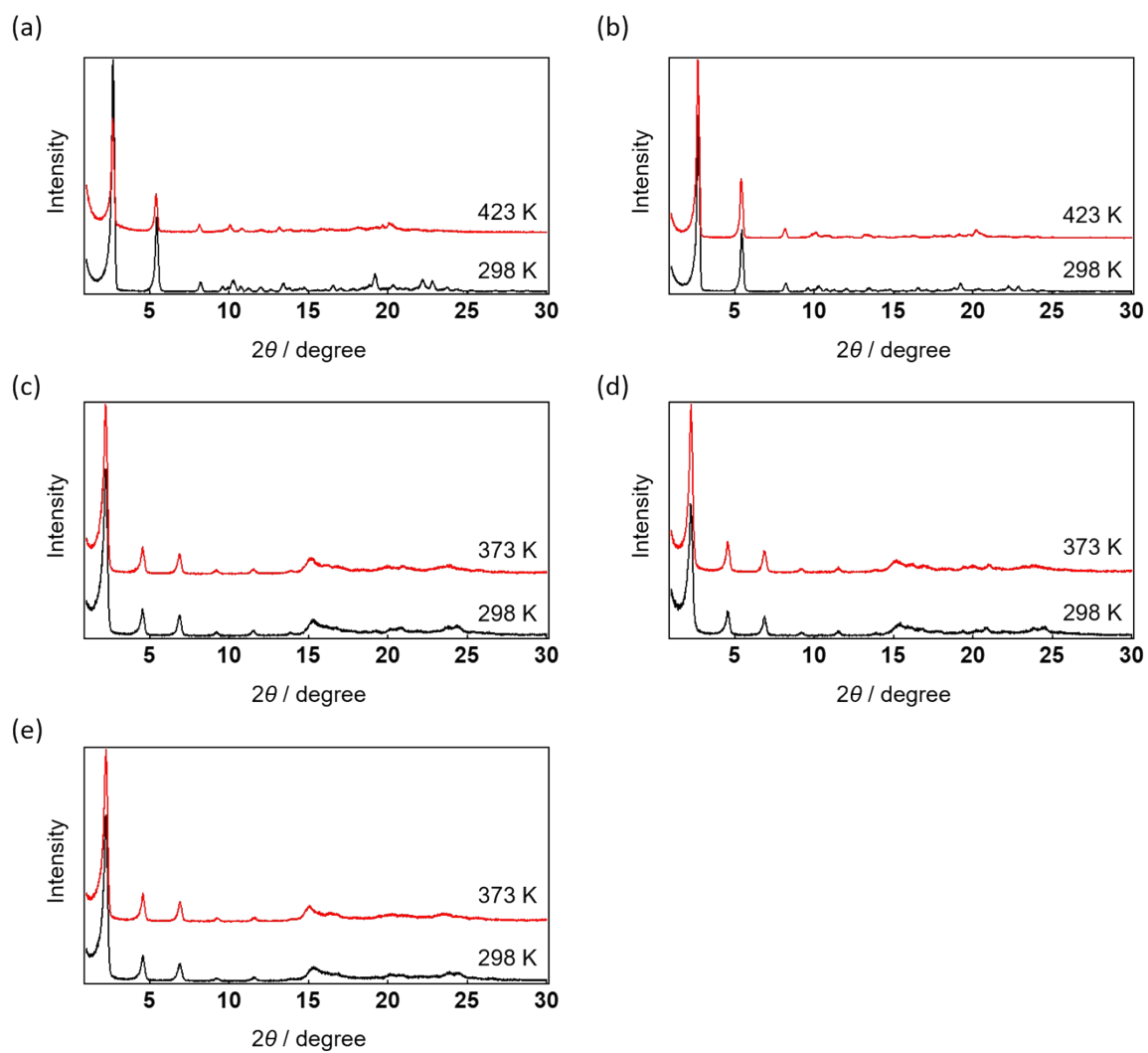
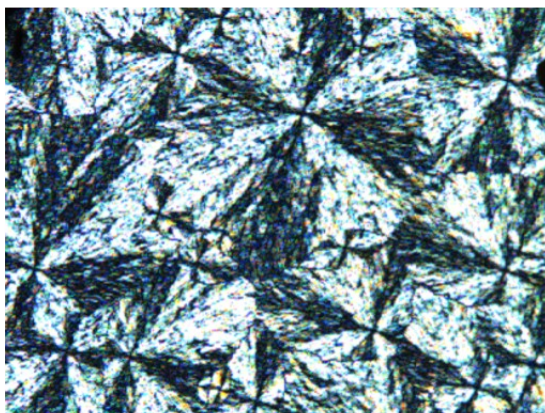
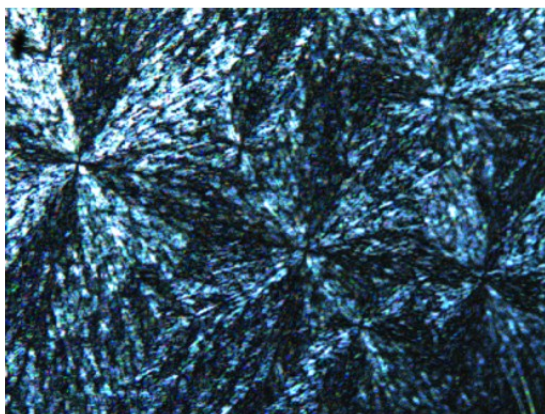


Fig. S2 Temperature-dependent PXRD patterns for (a) **1-R**, (b) **1-S**, (c) **2-R**, (d) **2-S** and (e) **2-rac**.

(a)



(b)



(c)

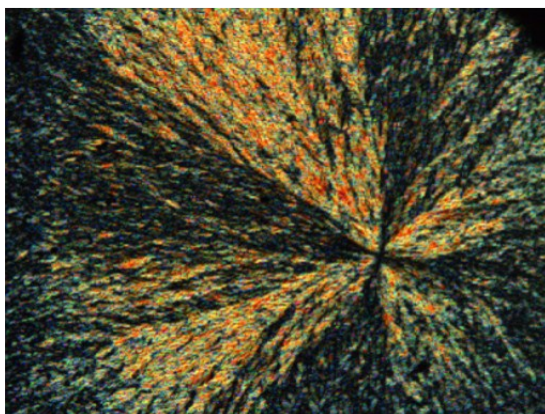


Fig. S3 POM texture of (a) **1-R**, (b) **1-S** and (c) **1-rac**.

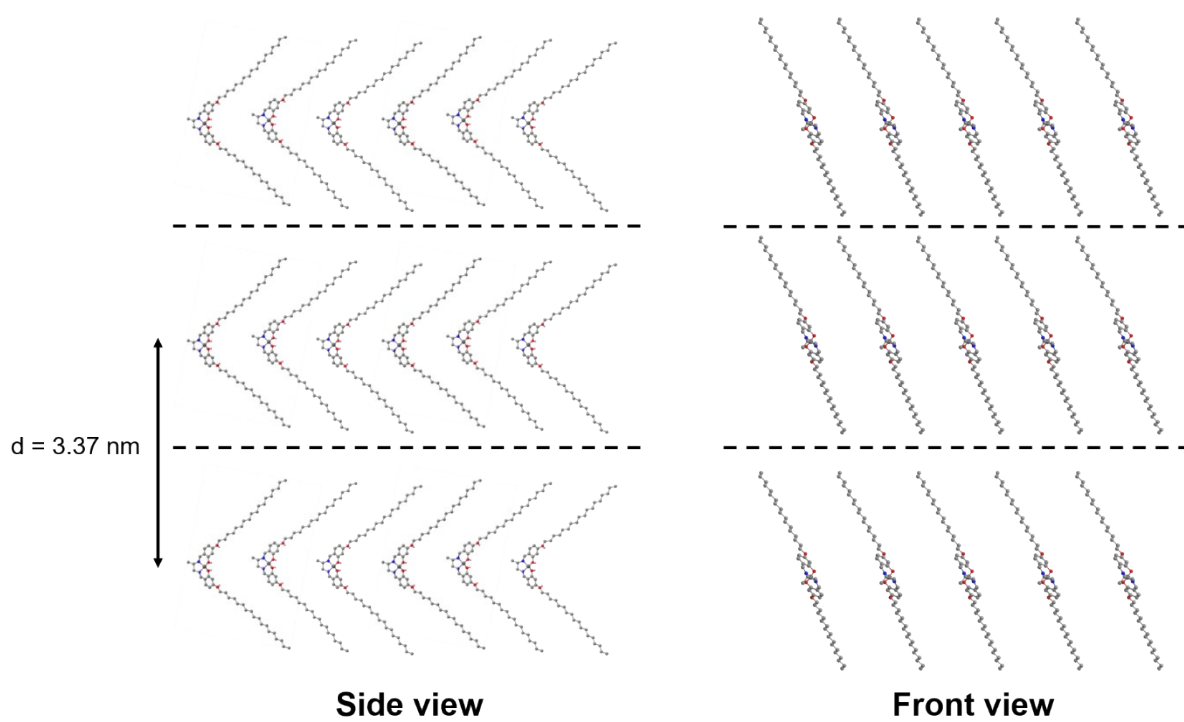


Fig. S4 Molecular packing for **1-rac** (lamellar structure).

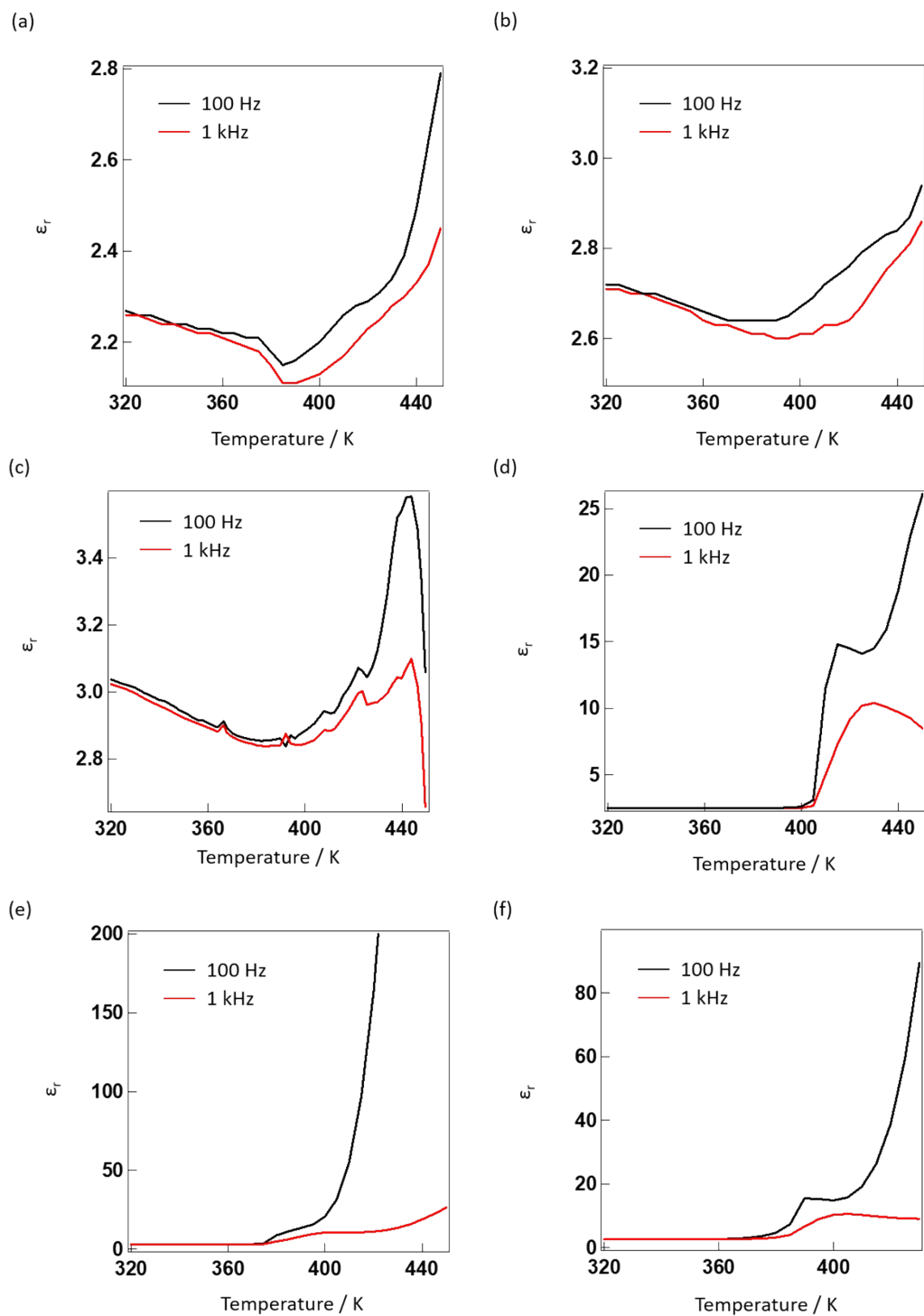


Fig. S5 Dielectric constants of (a) **1-R**, (b) **1-S**, (c) **1-rac**, (d) **2-R**, (e) **2-S** and (f) **2-rac** (black line: 100 Hz, red line: 1 kHz).

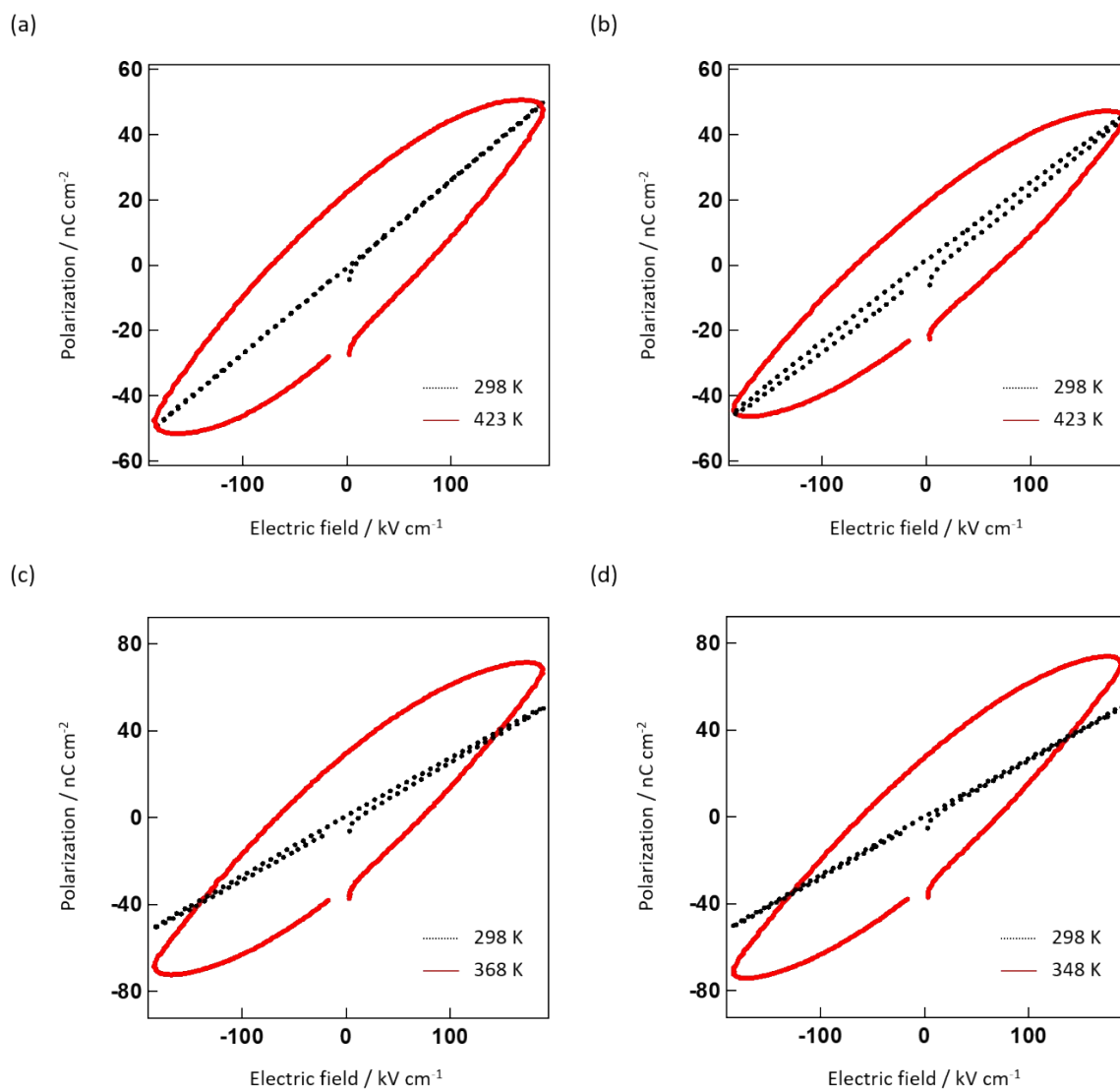


Fig. S6 *P*-*E* hysteresis loops for (a) 1-*R*, (b) 1-*S*, (c) 2-*R* and (d) 2-*S*.

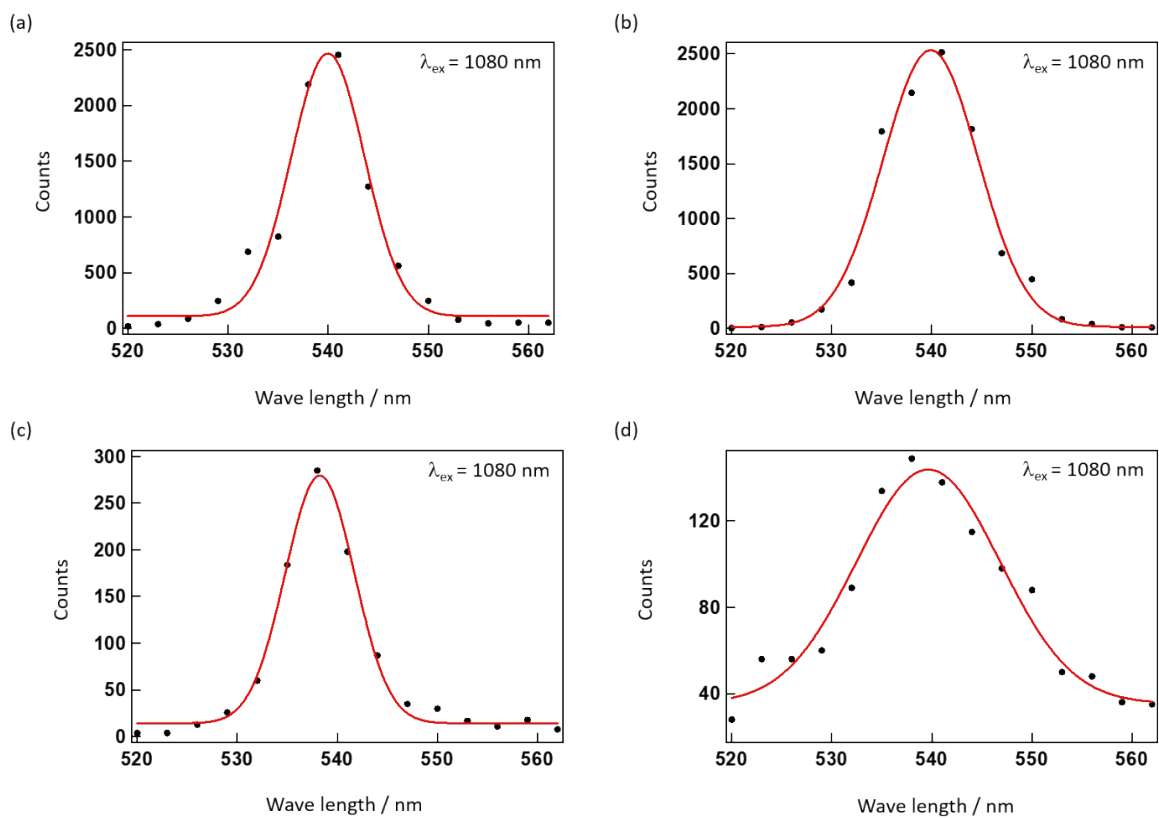


Fig. S7 Results of second harmonic generation (SHG) experiments for (a) **1-R**, (b) **1-S**, (c) **2-R** and (d) **2-S**.

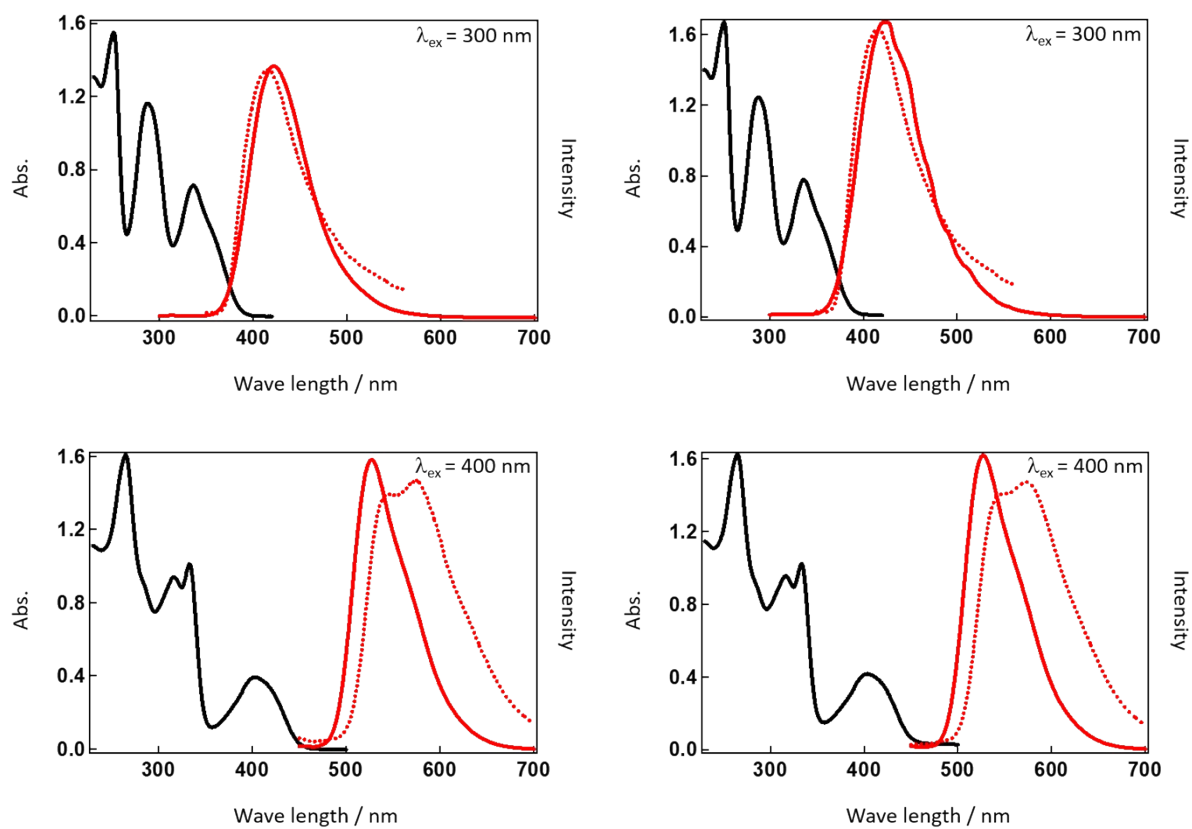


Fig. S8 Normalized absorption (black line) and emission (red line) spectra of (a) **1-R**, (b) **1-S**, (c) **2-R** and (d) **2-S**.