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Electronic Supplementary Information (ESI)

Photochromism and fluorescence modulation of pyrazolone derivatives in the solid state

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Table S1. Crystal data and structure refinement for **1**.

Empirical formula	C ₂₆ H ₁₉ N ₅ F ₆ SO • CH ₃ CH ₂ OH
Formula weight	609.59
Temperature	293(2) K
Wavelength	0.71073 Å
Crystal system	Monoclinic
Space group	<i>P2(1)/c</i>
Unit cell dimensions	<i>a</i> = 8.2512(3) Å <i>α</i> = 90.00° <i>b</i> = 30.1101(10) Å <i>β</i> = 102.2120(10)° <i>c</i> = 11.6340(5) Å <i>γ</i> = 90.00°
Volume	2825.00(18) Å ³
<i>Z</i>	4
Calculated density	1.433 mg/m ³
Absorption coefficient	1.90 mm ⁻¹
<i>F</i> (000)	1256
Crystal size	0.54 × 0.39 × 0.15 mm
Theta range for data collection	3.08–25.50°
Limiting indices	−9 ≤ <i>h</i> ≤ 9, −36 ≤ <i>k</i> ≤ 36, −14 ≤ <i>l</i> ≤ 14
Reflections collected / unique	23076 / 5230 [<i>R</i> _{int} = 0.0370]
Absorption correction	Empirical
Max. and min. transmission	0.922 and 0.968
Refinement method	Full-matrix least-squares on <i>F</i> ²
Data / restraints / parameters	5230 / 5 / 392
Goodness-of-fit on <i>F</i> ²	1.080
Final <i>R</i> indices [<i>I</i> > 2 σ(<i>I</i>)]	<i>R</i> ₁ = 0.0716, <i>wR</i> ₂ = 0.1338
<i>R</i> indices (all data)	<i>R</i> ₁ = 0.1092, <i>wR</i> ₂ = 0.1559
Extinction coefficient	0.0066(5)
Largest diff. peak and hole	0.595 and -0.499 e Å ⁻³

Table S2. Selected Bond Lengths (Å) and Bond Angles (°) of B

S–C(23)	1.675(4)	N(3)–C(16)	1.306(4)
O–C(7)	1.256(4)	N(3)–N(4)	1.377(4)
N(1)–N(2)	1.385(4)	N(4)–C(23)	1.369(5)
N(1)–C(7)	1.391(4)	N(5)–C(23)	1.315(5)
N(1)–C(6)	1.418(4)	N(5)–C(24)	1.458(5)
N(2)–C(9)	1.349(4)		
N(2)–N(1)–C(7)	108.6(3)	N(2)–C(9)–C(8)	109.4(3)
N(2)–N(1)–C(6)	121.2(3)	N(2)–C(9)–C(10)	119.5(3)
C(7)–N(1)–C(6)	127.6(3)	N(5)–C(18)–N(4)	116.7(3)
C(9)–N(2)–N(1)	108.8(3)	N(5)–C(18)–S	124.6(3)
N(1)–C(7)–C(8)	106.6(3)	N(4)–C(18)–S	118.7(3)