

# Solid-state highly efficient DR mono and poly-dicyanophenylenevinylene fluorophores

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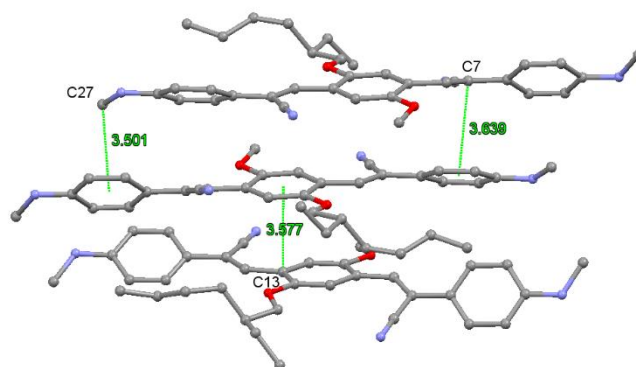
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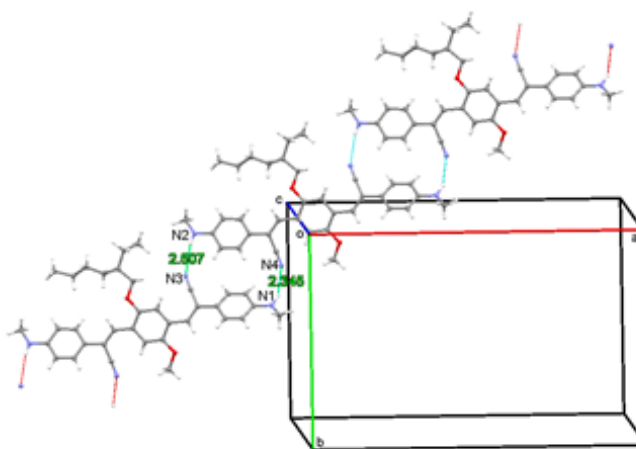
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Table S1. Crystallographic data and structural refinement details of CN-PV-NHMe.

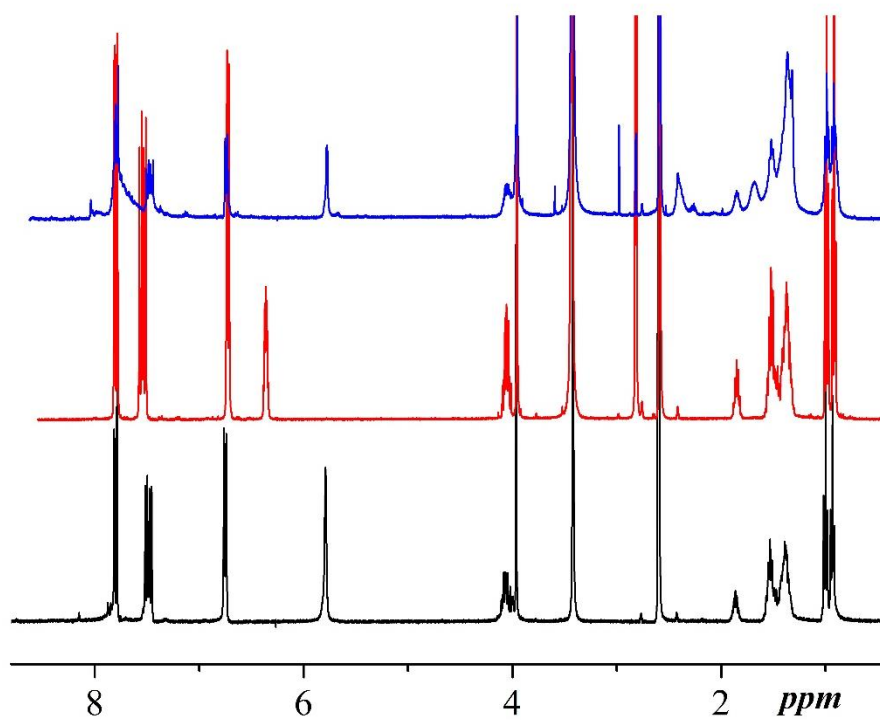
Empirical formula	C <sub>35</sub> H <sub>40</sub> N <sub>4</sub> O <sub>2</sub>
Formula weight	548.71
Temperature (K)	173(2)
Wavelength (Å)	0.71073
Crystal system	Monoclinic
Space group	C 2/c
<i>a</i> (Å)	25.330(7)
<i>b</i> (Å)	16.719(4)
<i>c</i> (Å)	14.804(3)
$\beta$ (°)	97.269(18)
Volume (Å <sup>3</sup> )	6219(3)
<i>Z</i>	8
<i>D</i> <sub>calc</sub> (Mg/m <sup>3</sup> )	1.172
$\mu$ (mm <sup>-1</sup> )	0.073
<i>F</i> (000)	2352
Crystal size (mm)	0.40 × 0.10 × 0.07
$\theta$ range for data collection (°)	2.720 to 25.013
Limiting indices	-30 ≤ <i>h</i> ≤ 30, -19 ≤ <i>k</i> ≤ 19, -17 ≤ <i>l</i> ≤ 16
Reflections collected / unique	27781 / 5463 [ <i>R</i> (int) = 0.2470]
Refinement method	Full-matrix least-squares on <i>F</i> <sup>2</sup>
Data / restraints / parameters	5463 / 200 / 443
Goodness-of-fit on <i>F</i> <sup>2</sup>	1.015
Final <i>R</i> indices [ <i>I</i> > 2σ( <i>I</i> )]	<i>R</i> <sub>1</sub> = 0.0833, <i>wR</i> <sub>2</sub> = 0.1817
<i>R</i> indices (all data)	<i>R</i> <sub>1</sub> = 0.2390, <i>wR</i> <sub>2</sub> = 0.2521
Largest diff. peak / hole (e·Å <sup>-3</sup> )	0.242 / -0.240



**Figure S1.** Partial packing of CN-PV-NHMe with shortest distances involving aromatic centroids reported as green dashed lines. Ball-and-stick style, H atoms are not drawn for clarity.



**Figure S2.** Molecular ribbon of CN-PV-NHMe propagating in the (1 -1 0) direction. Inter-molecular NH...N bonds are reported as light blue dashed lines.



**Figure S3.** <sup>1</sup>H NMR spectra of CN-PV-NH<sub>2</sub> (black line), CN-PV-NHMe (red line) and CN-PPV (blue line) in DMSO-d<sub>6</sub>, 400 MHz, 25°C.