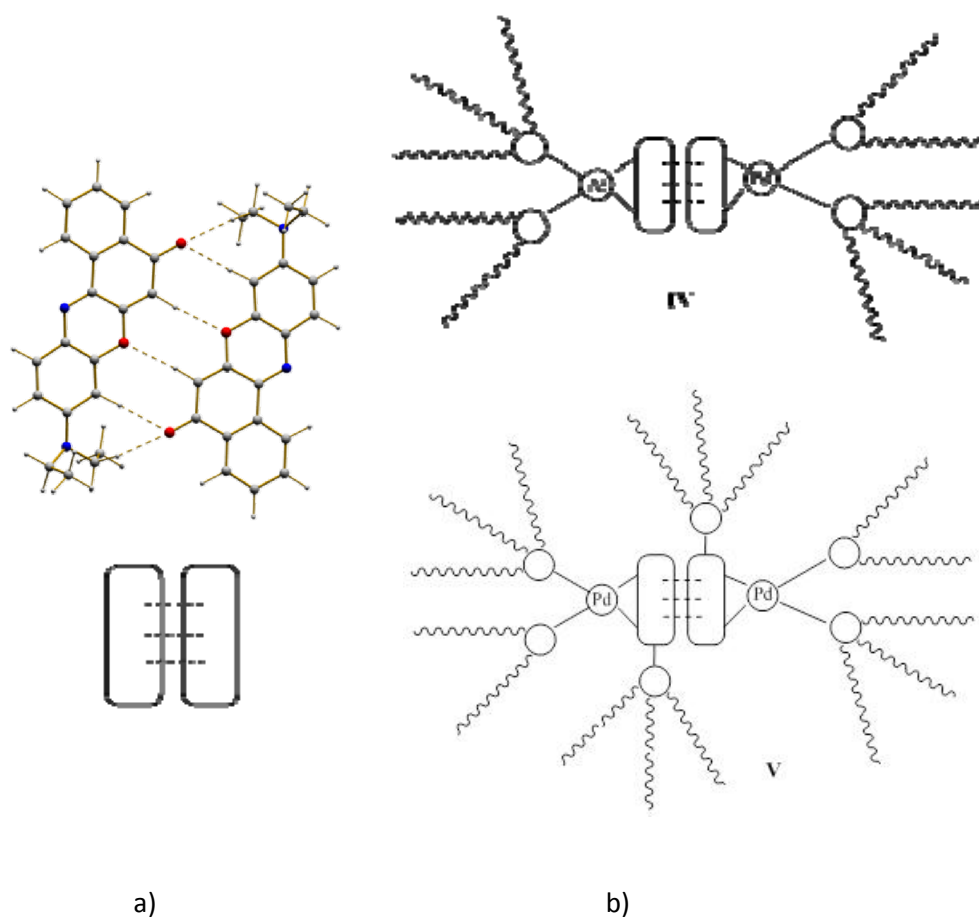


## Photoconductive Nile Red Cyclopalladated Metallomesogens

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and Mauro Ghedini.<sup>a,b,d</sup>

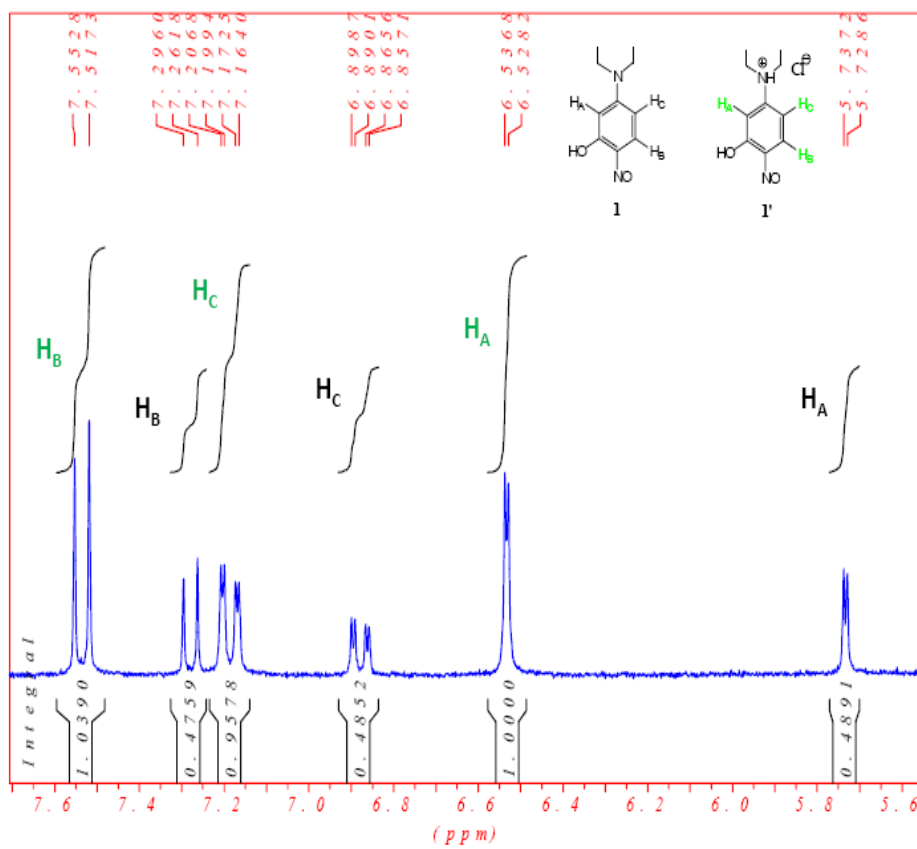
- a) Centro di Eccellenza CEMIF.CAL, LASCAMM CR-INSTM, Unità INSTM della Calabria, I-87036 Arcavacata di Rende (CS), Italy
- b) Dipartimento di Chimica – Università della Calabria, I-87036 Arcavacata di Rende (CS), Italy
- c) Dipartimento di Scienze Farmaceutiche – Università della Calabria, I-87036 Arcavacata di Rende (CS), Italy
- d) CNR-IPCF UOS di Cosenza – LiCryL c/o Dipartimento di Fisica, Università della Calabria, I-87036 Arcavacata di Rende (CS), Italy

### Schematic representation of the dimeric pairs formed by the hydrogen bonds network



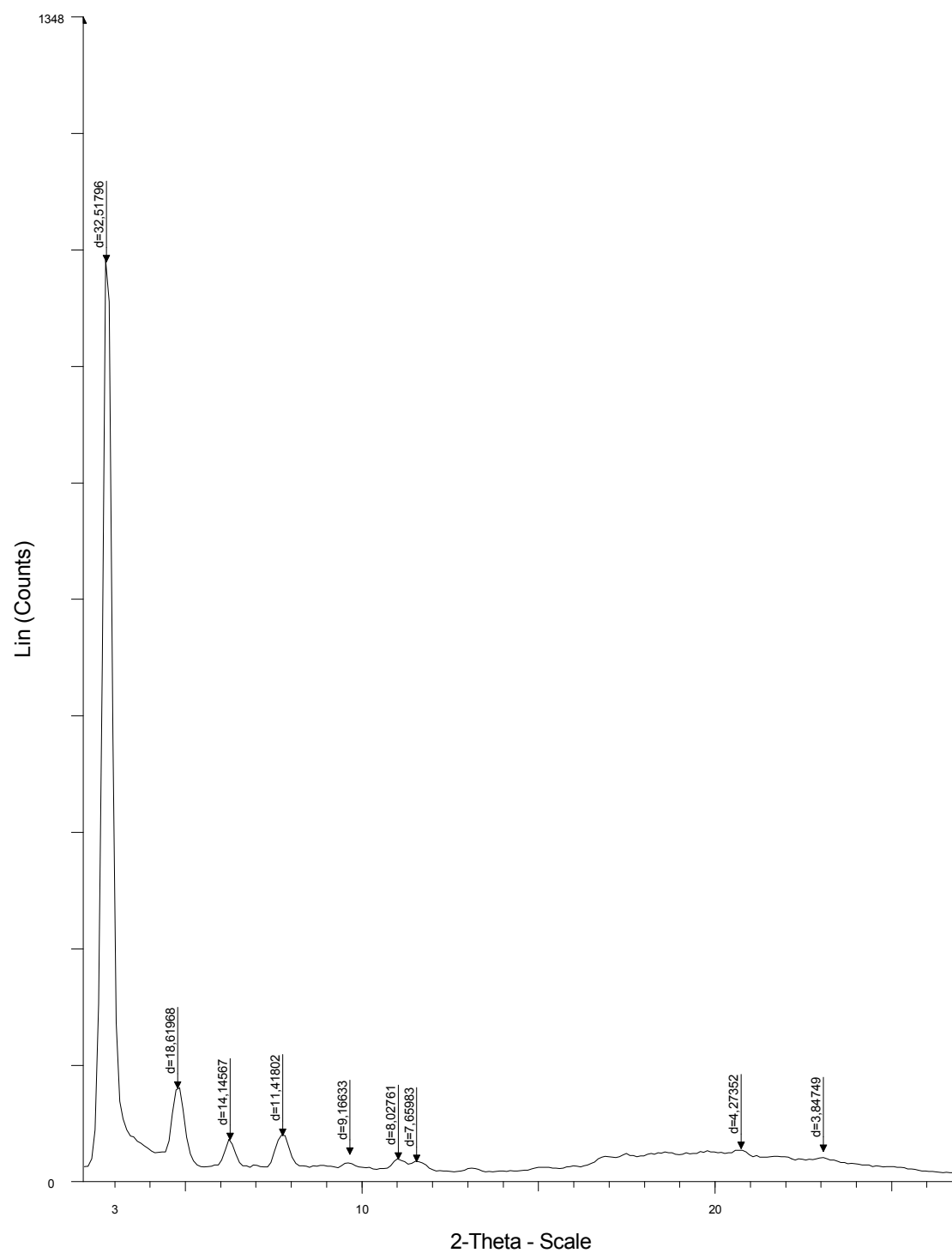
**Scheme S1.** a) Geometrically optimised structure and scheme of **H(NR)** dimer. Hydrogen bonds are represented in dashed lines (from 2.33 to 2.37 Å). b) Scheme of dimers **IV** and **V**.

**<sup>1</sup>H NMR spectrum of mixture 3a and 3b**

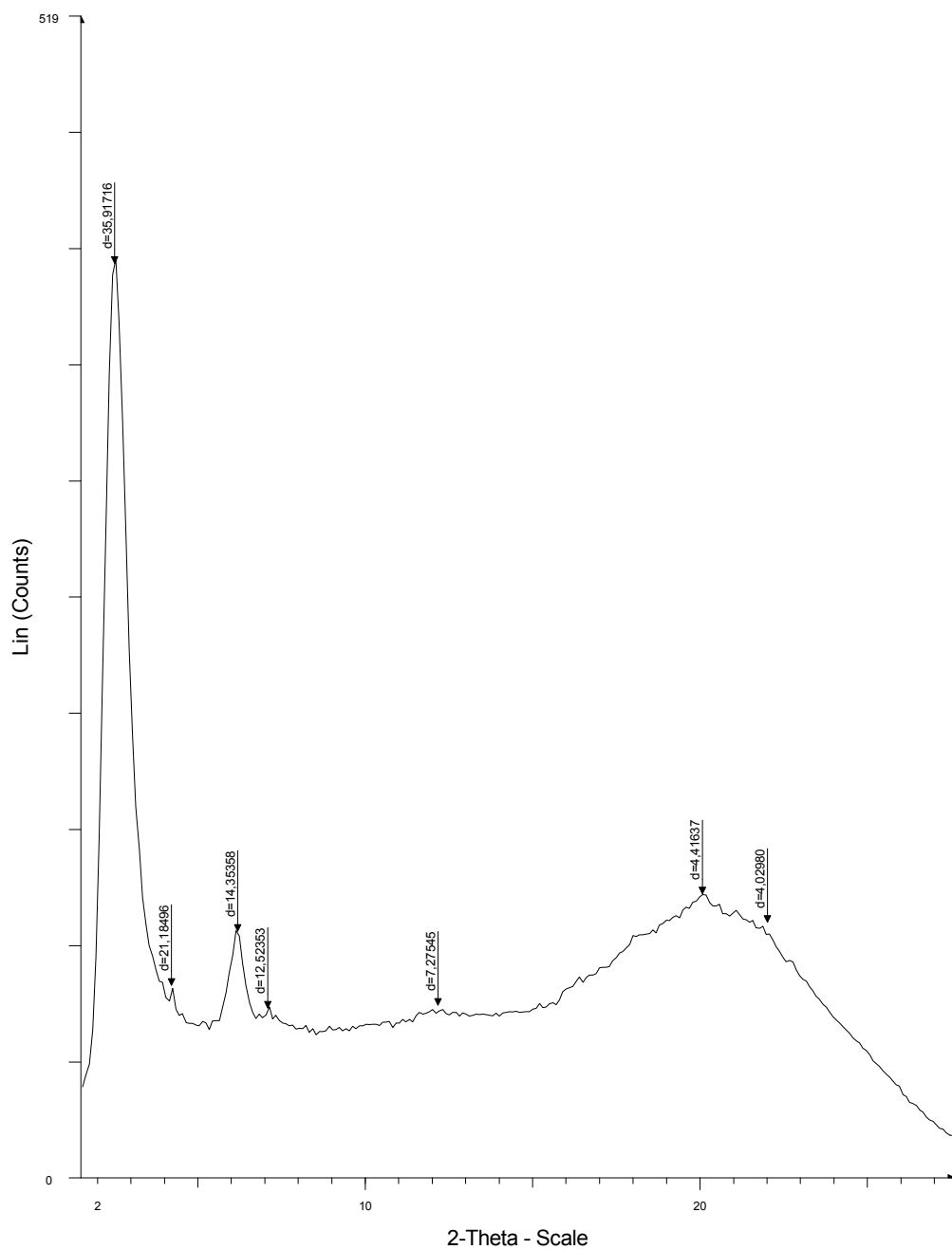


**Figure S1.** <sup>1</sup>H NMR of mixture 3a and 3b (aromatic region only)

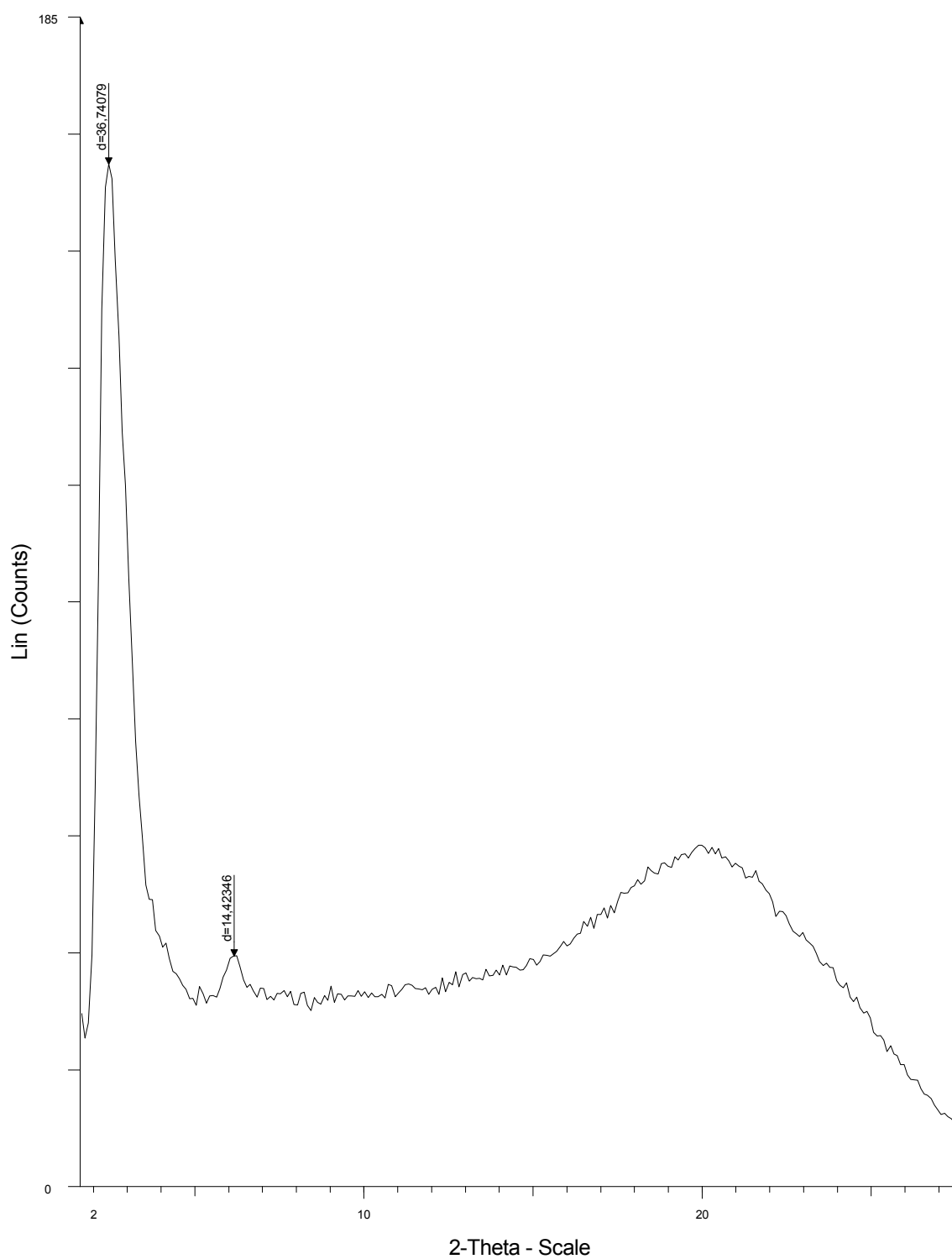
### Powder X-Ray diffraction patterns



**Figure S2.** PXRD pattern of **IV** registered at 125°C on cooling from 160°C showing the highly ordered Col<sub>r</sub> mesophase even at high temperature.

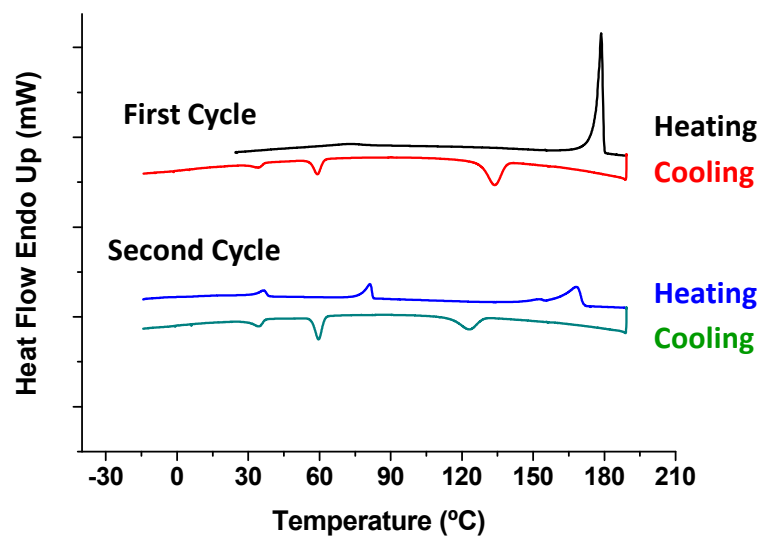


**Figure S3.** PXRD pattern of **V** registered at room temperature on cooling from 160°C showing the Colr mesophase obtained by thermal annealing at room temperature.



**Figure S4.** PXRD pattern of **V** registered at 70°C on second heating showing the disordered  $\text{CoI}_r$  phase.

**DSC traces**



**Figure S5. DSC traces of compound IV**