



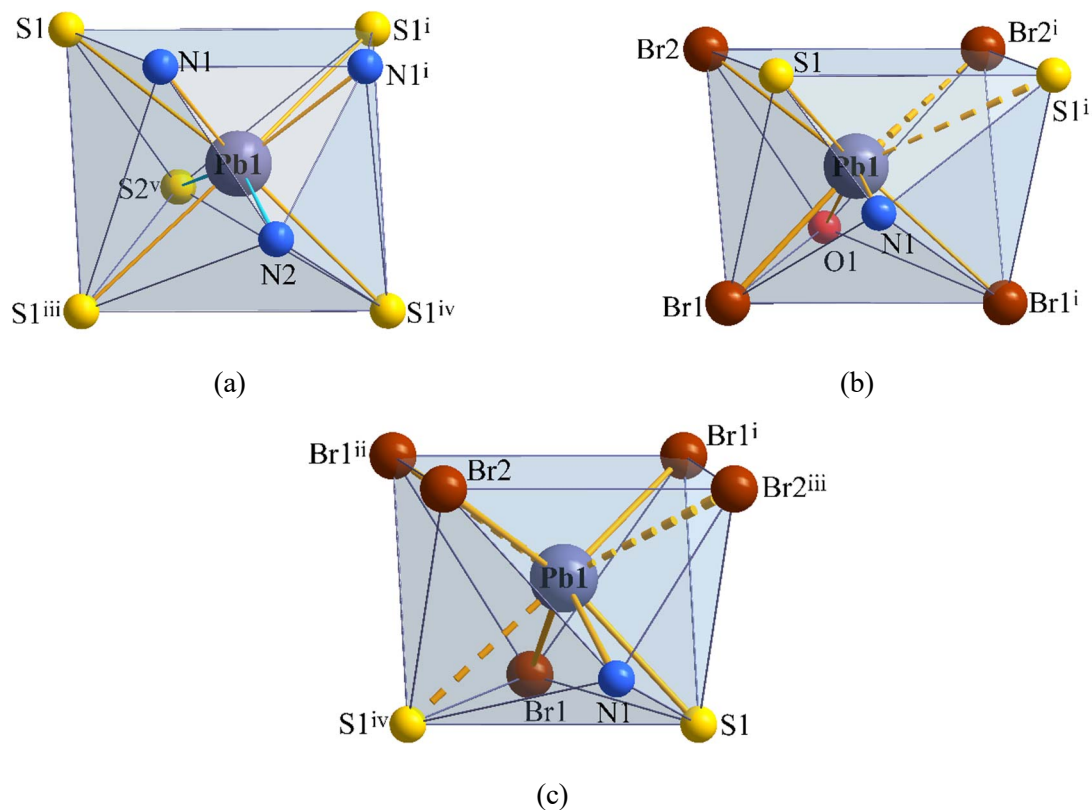
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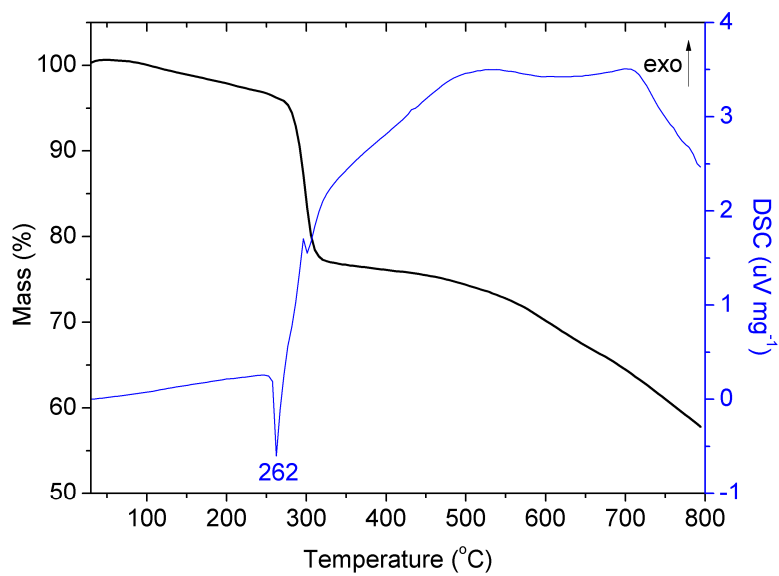
**Supporting information for article:**

**One- and two-dimensional Pb<sup>II</sup> compounds resulting from PbBr<sub>2</sub>  
and Pb(SCN)<sub>2</sub> with pyrimidine-2-thione**

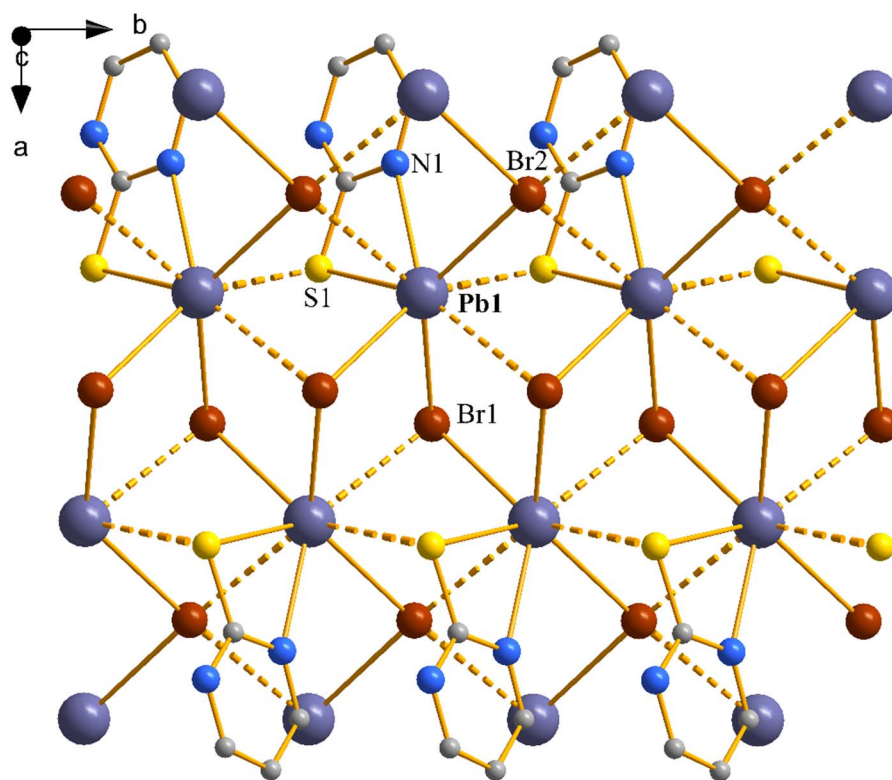
**Vânia Denise Schwade and Bárbara Tirloni**



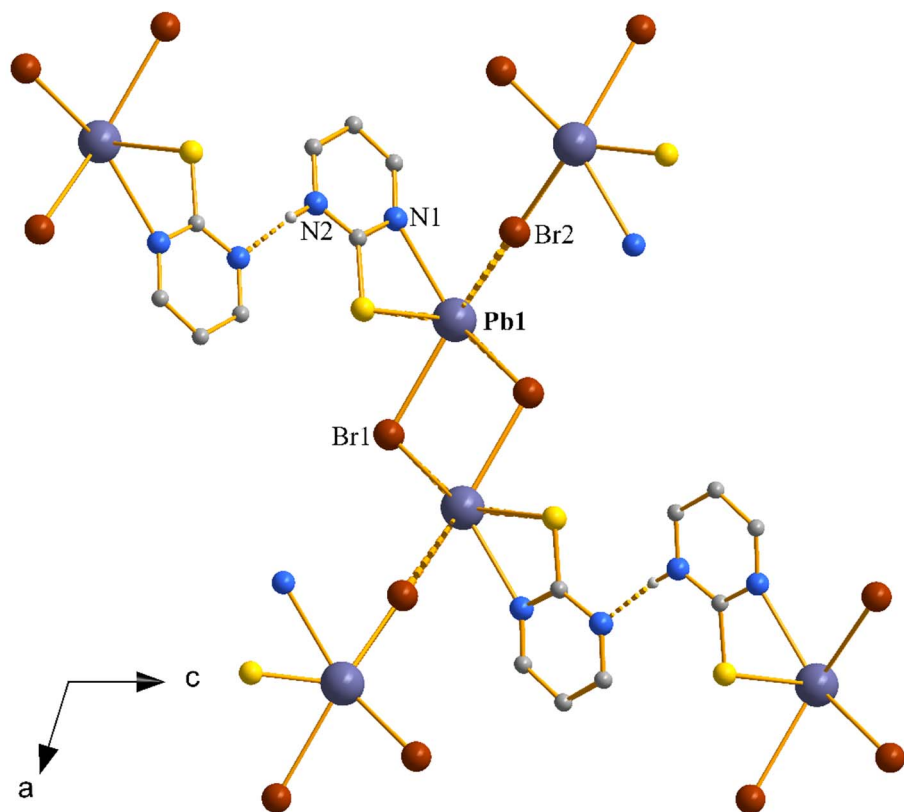
**Figure S1** (a) The coordination polyhedron of the Pb<sup>II</sup> centre in (I) [Symmetry codes: (i)  $x, y, -z+3/2$ ; (ii)  $x, -y+1/2, -z+1$ ; (iii)  $-x+1, -y, -z+1$ ; (iv)  $-x+1, -y, z+1/2$ ; (v)  $-x+1, y+1/2, -z+3/2$ ]. (b) The coordination polyhedron of the Pb<sup>II</sup> centre in (IIa) [Symmetry code: (i)  $x-1, y, z$ ]. (c) The coordination polyhedron of the Pb<sup>II</sup> centre in (IIb) [Symmetry codes: (i)  $-x+3/2, y-1/2, -z+3/2$ ; (ii)  $-x+3/2, y+1/2, -z+3/2$ ; (iii)  $x, y-1, z$ ; (iv)  $x, y+1, z$ ].



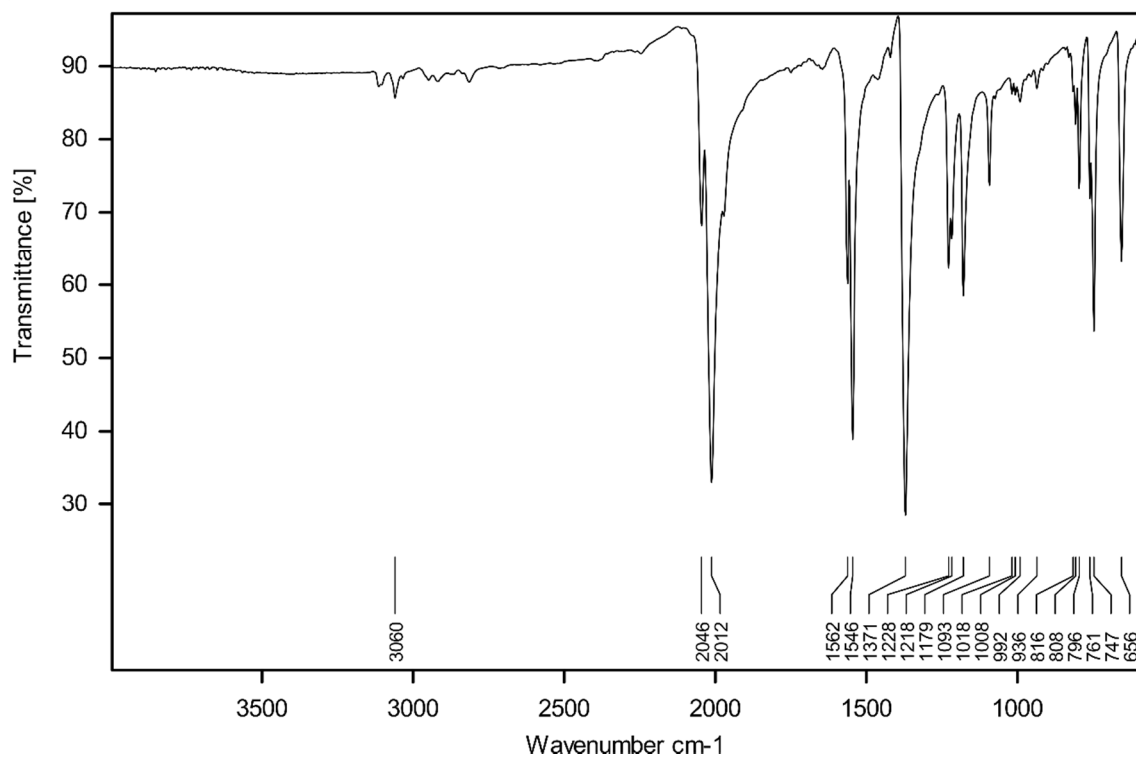
**Figure S2** TG-DSC curves of (I) in N<sub>2</sub> atmosphere.



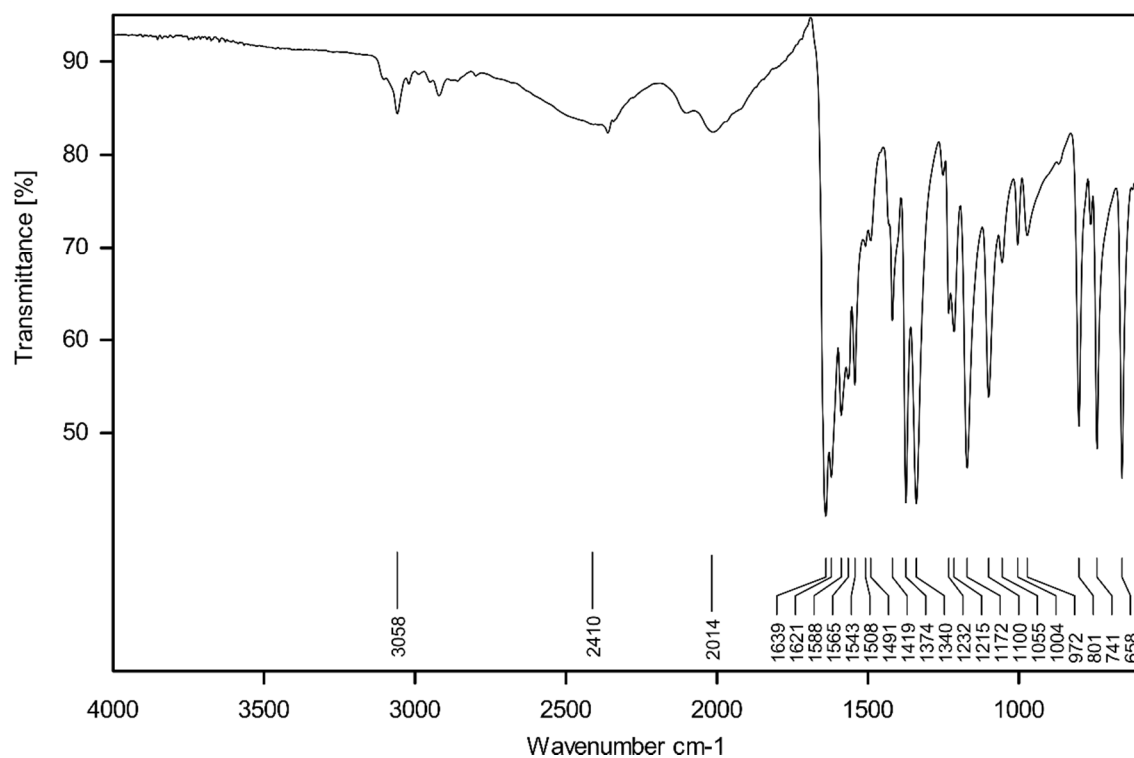
**Figure S3** View of compound (IIb) in the *ab* plane.



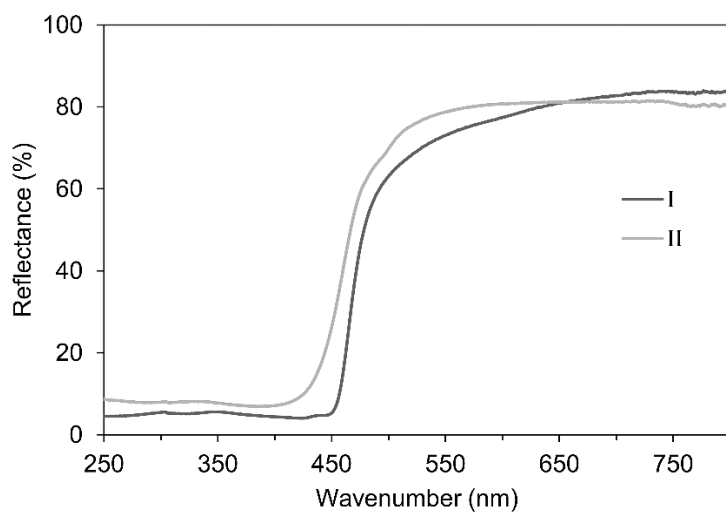
**Figure S4** View of compound (IIb) in the *ac* plane.



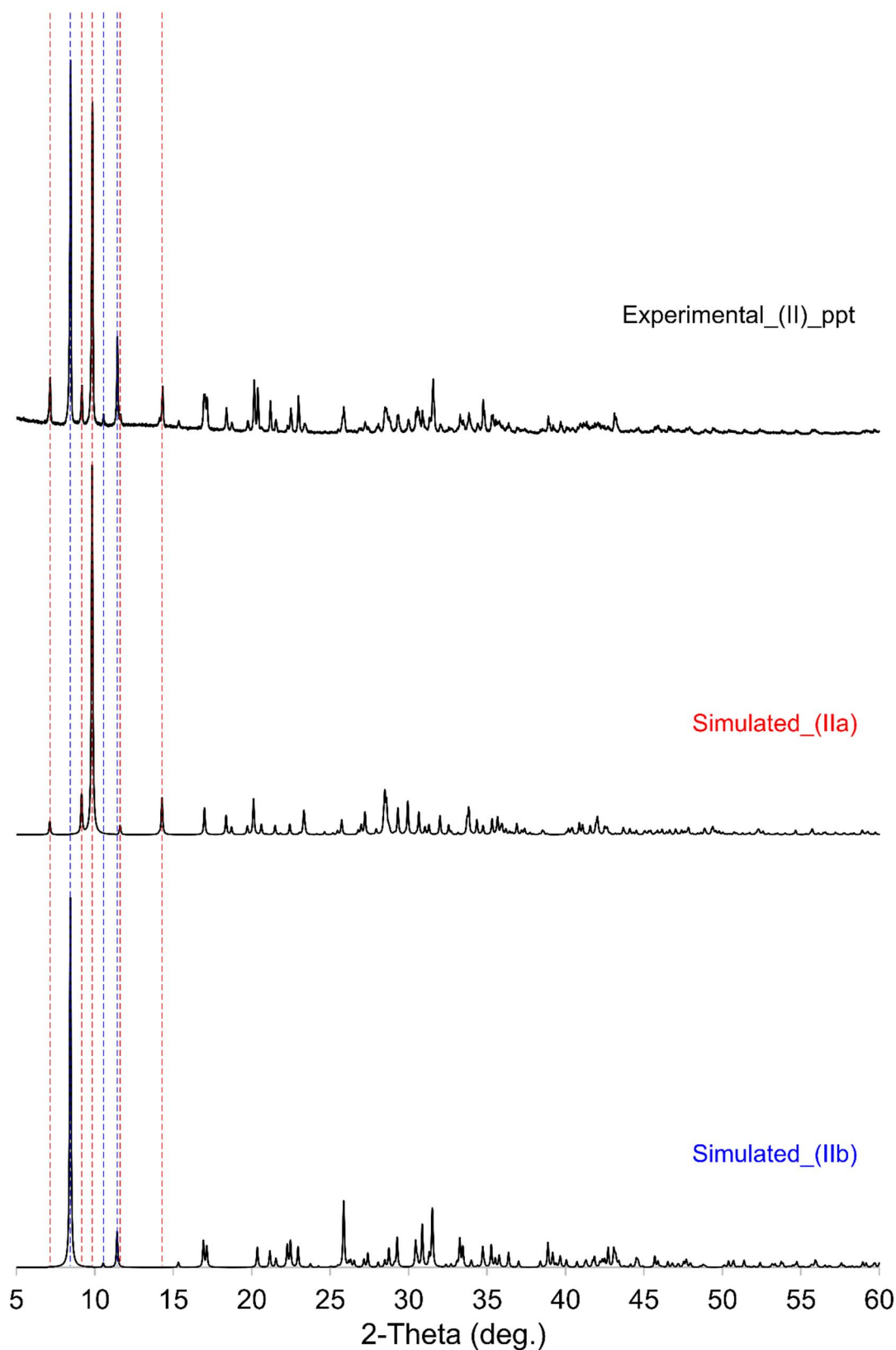
**Figure S5** FT-IR spectrum of (I).



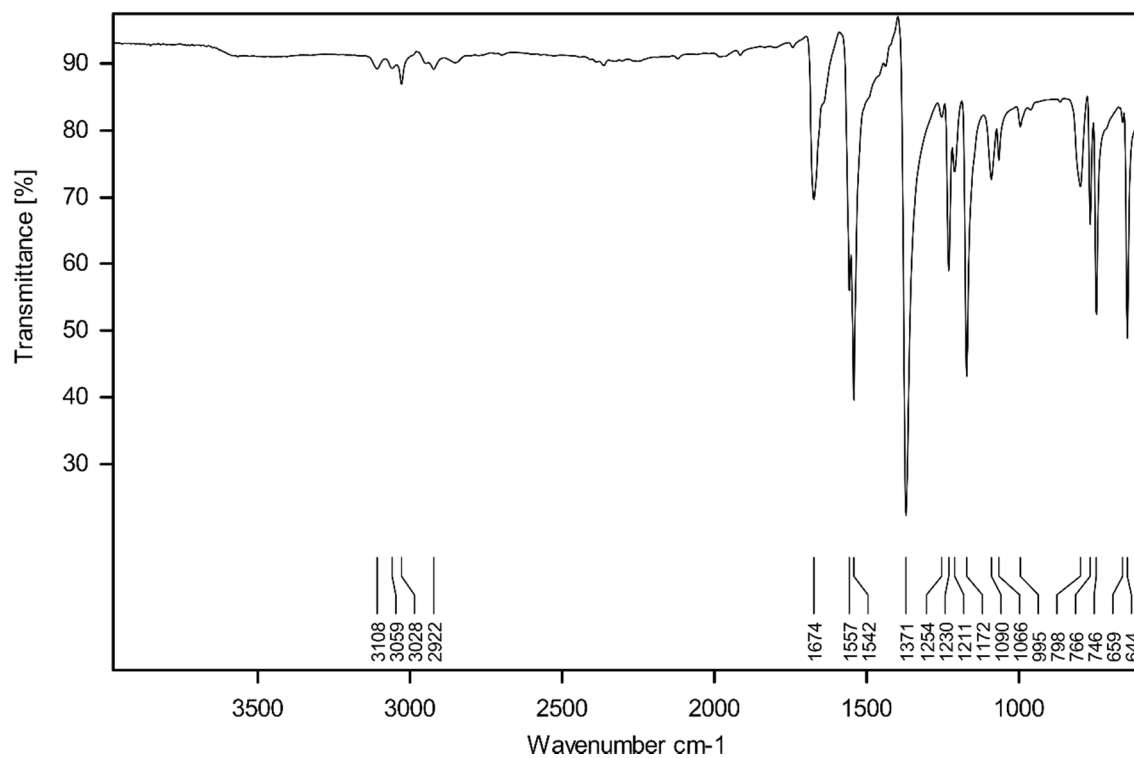
**Figure S6** FT-IR spectrum of (IIa).



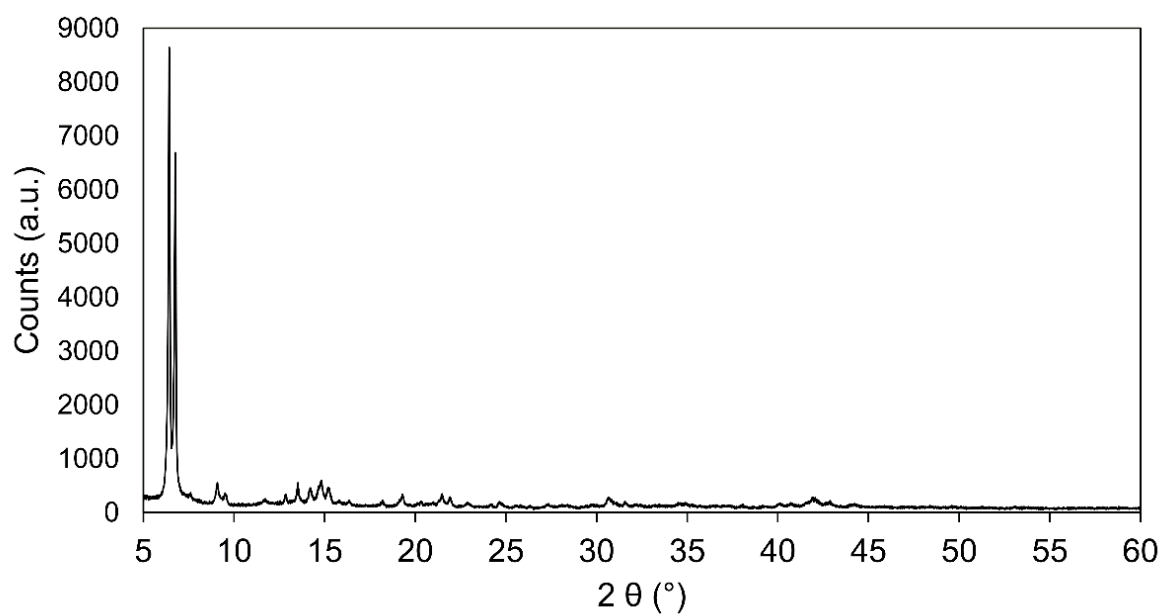
**Figure S7** Diffuse reflectance spectra of (I) and (IIa).



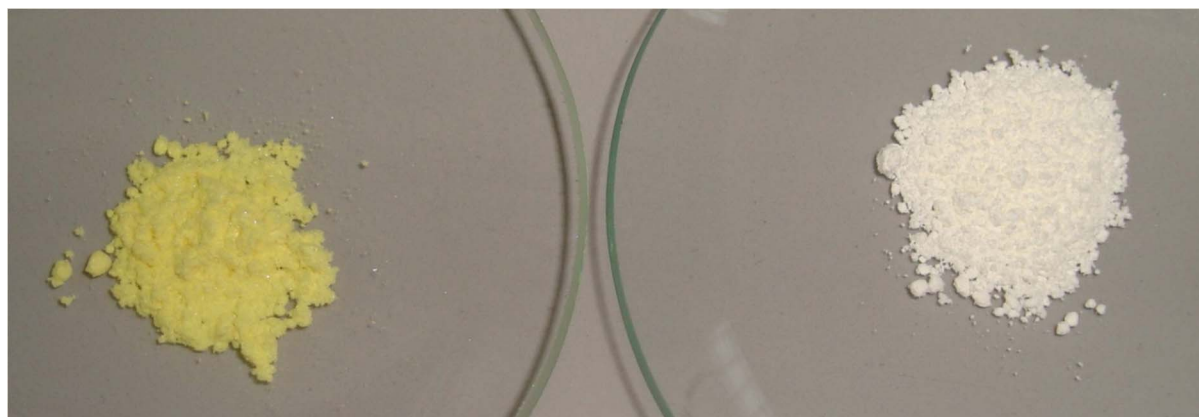
**Figure S8** Comparative for the precipitated solid from reaction of  $\text{PbBr}_2$  and HSpym in DMF (14 ml). The red and blue dashed lines represent the presence of (IIa) and (IIb), respectively, in the experimental PXRD pattern of the precipitate.



**Figure S9** FT-IR spectrum of the white solid obtained by transformation of (II) in solution.



**Figure S10** PXRD diffractogram of the white solid obtained by transformation of (II) in solution. Bruker D8 Advance diffractometer (Cu- $K\alpha$  radiation), slit of 0.2 $^\circ$ , 0.2 s per step and a step size of 0.01 $^\circ$ .



**Figure S11** Appearance of compound (II) (yellow) and compound  $\{[\text{Pb}(\text{Spym})\text{Br}] \cdot \text{DMF}\}_n$  (white).