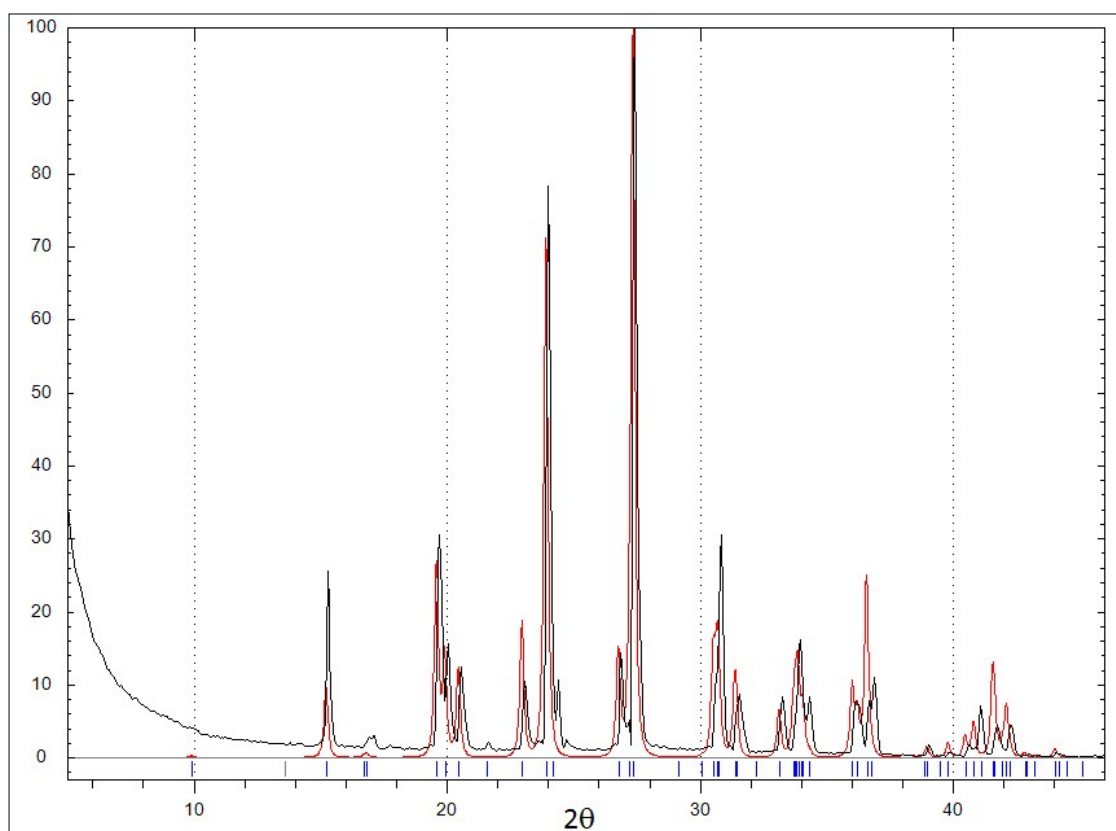


## Supplementary Information

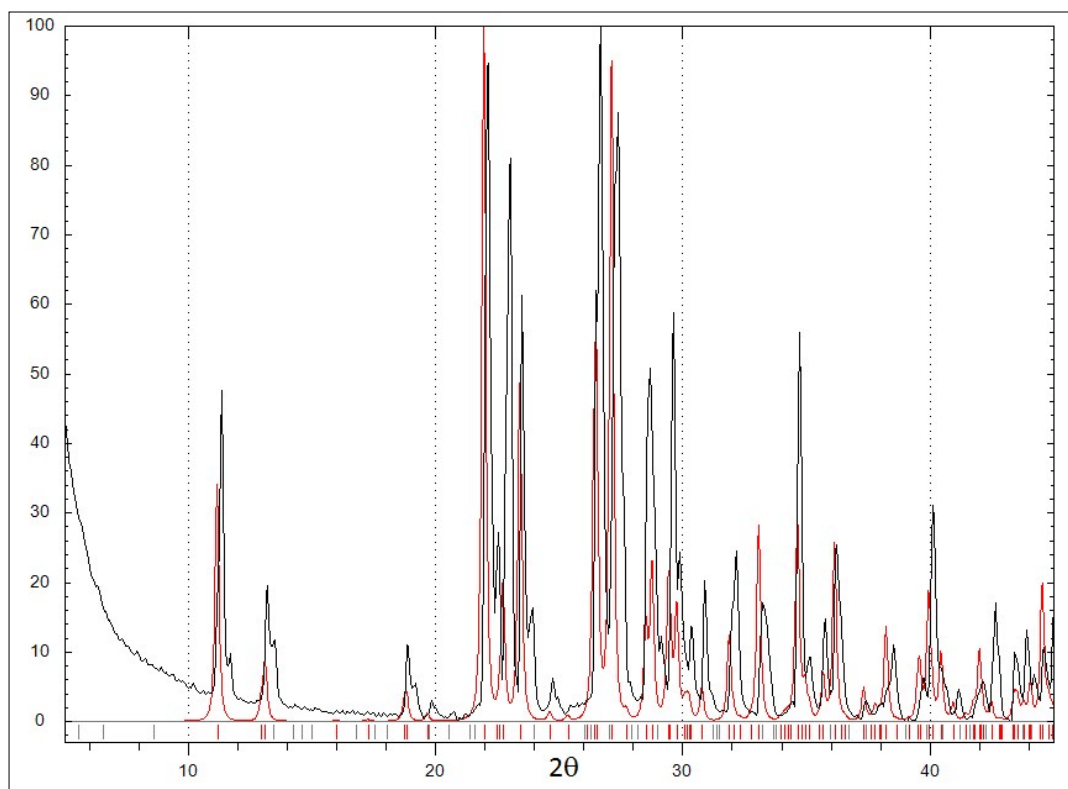
### Calculated and Experimental Powder Patterns

Experimental X-ray powder patterns of the bulk samples are compared with powder patterns calculated from the single crystal structures reported, to determine if the single crystal selected for single crystal X-ray diffraction is representative of the bulk sample. The experimental powder patterns are shown in black, while the calculated patterns are given in red.

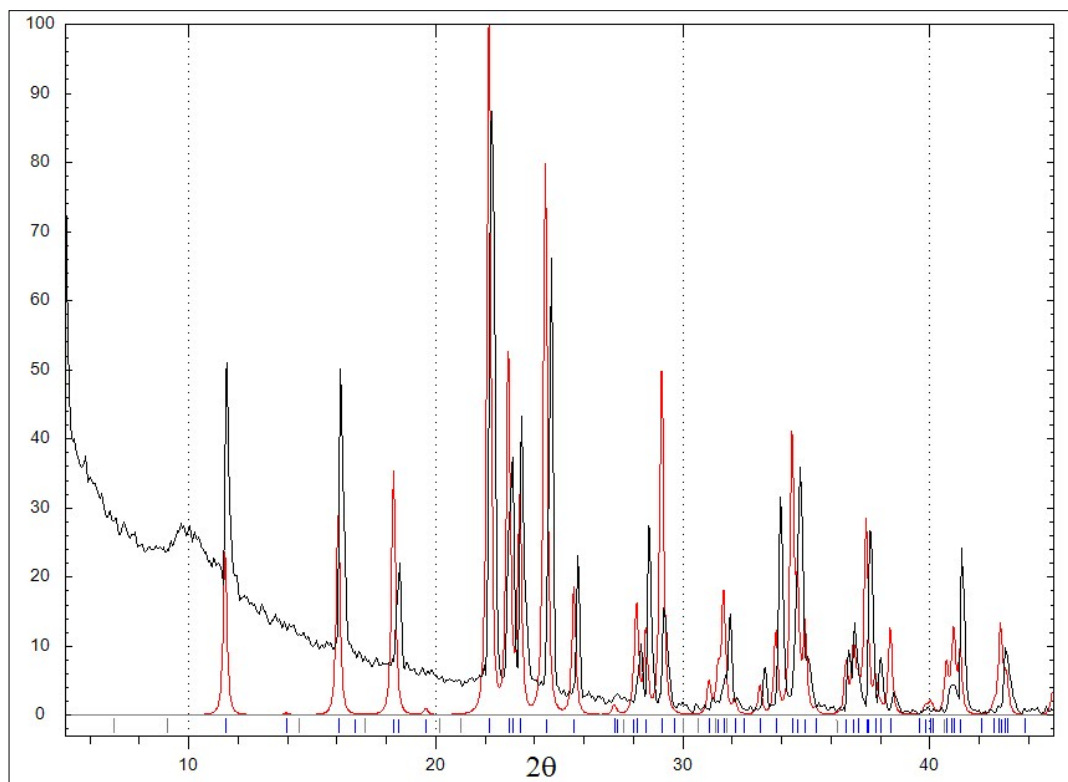
#### 1: C<sub>4</sub>Cl



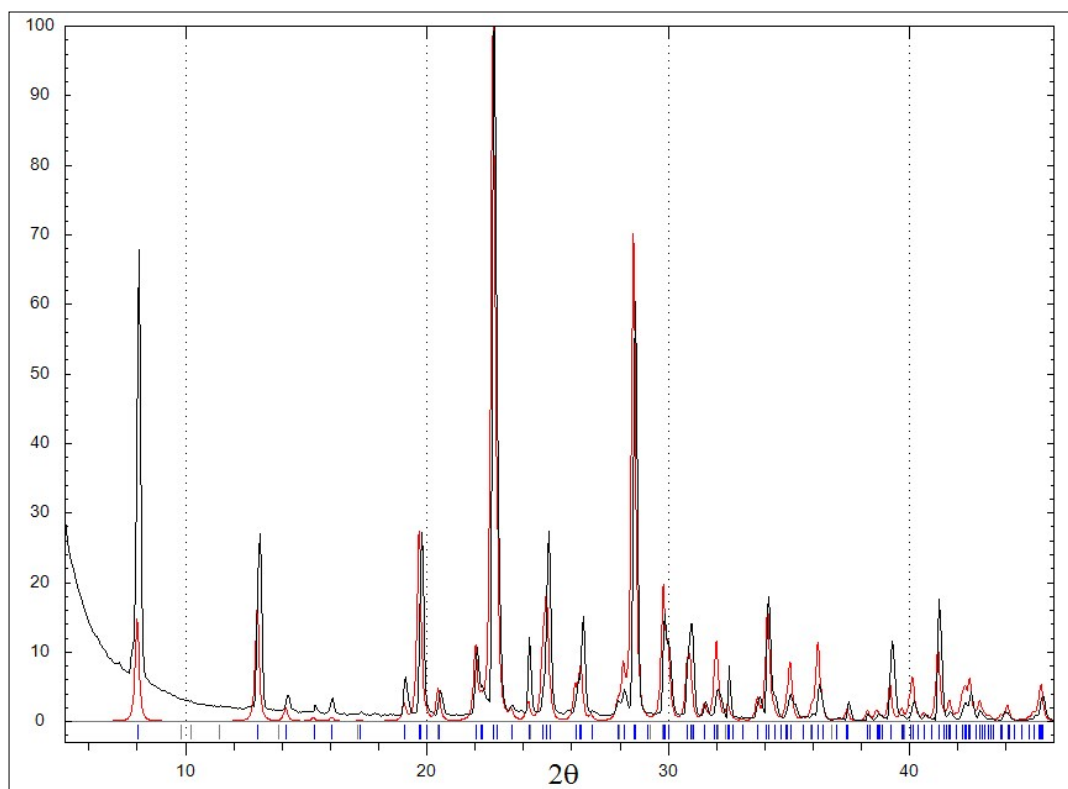
## 2: C4Br



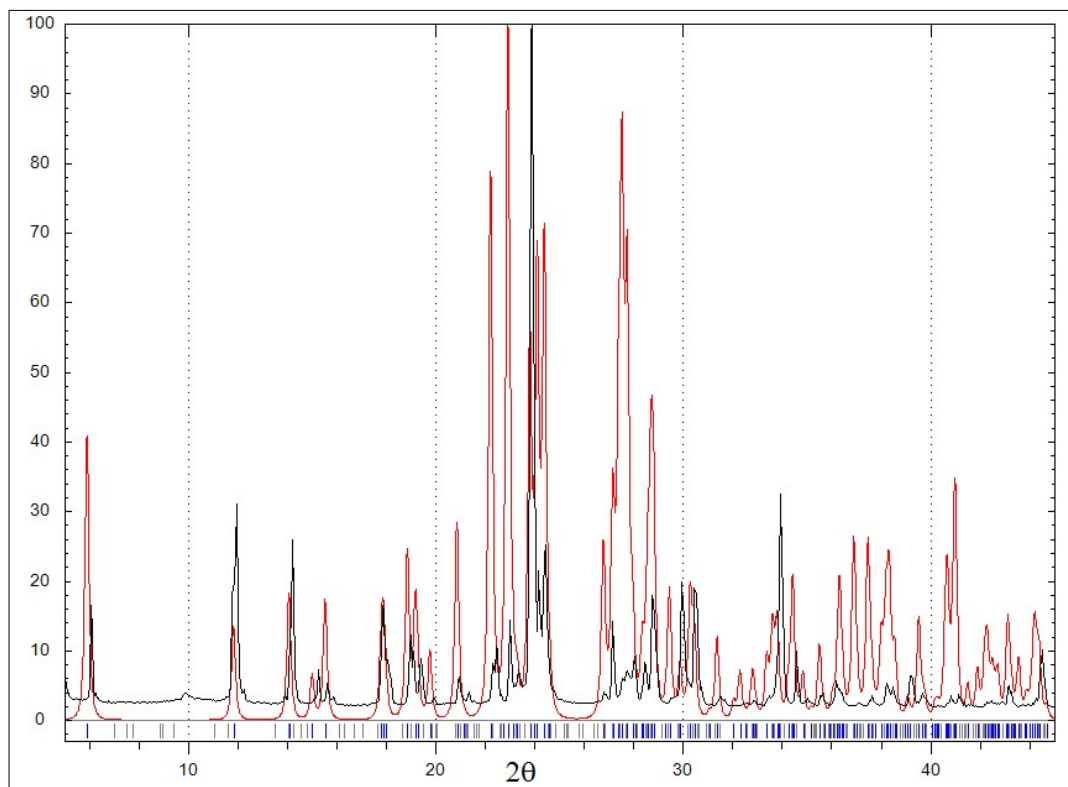
## 3: C4I



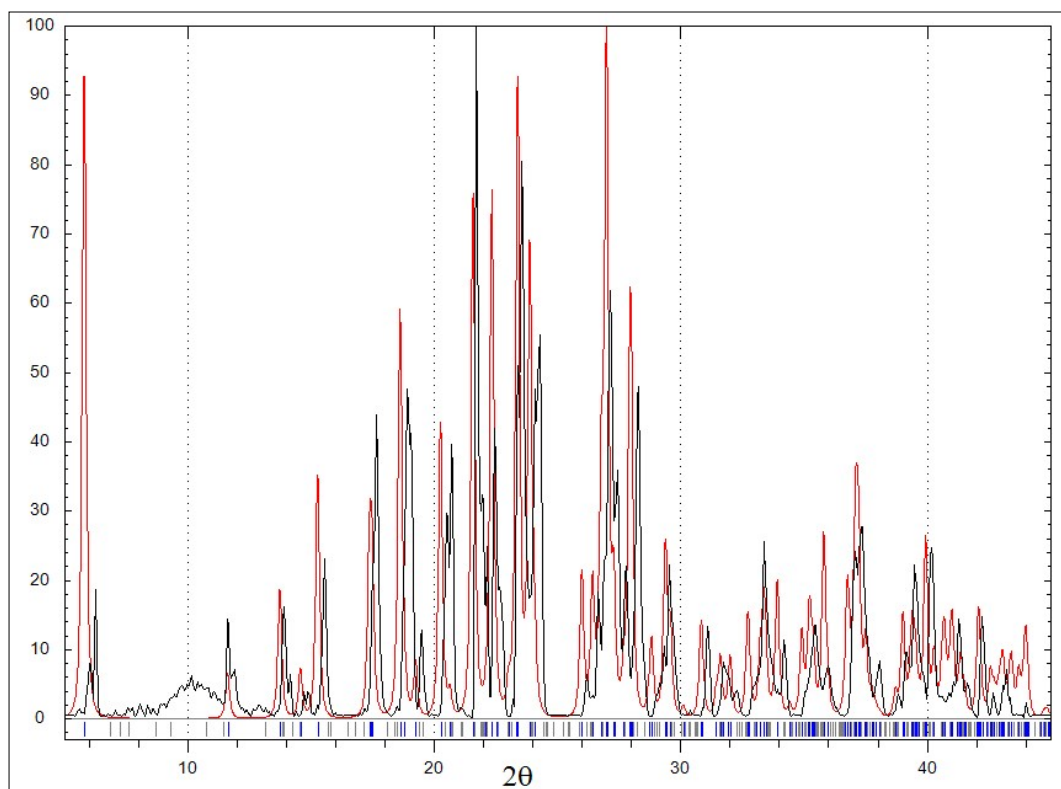
#### 4: C6Cl



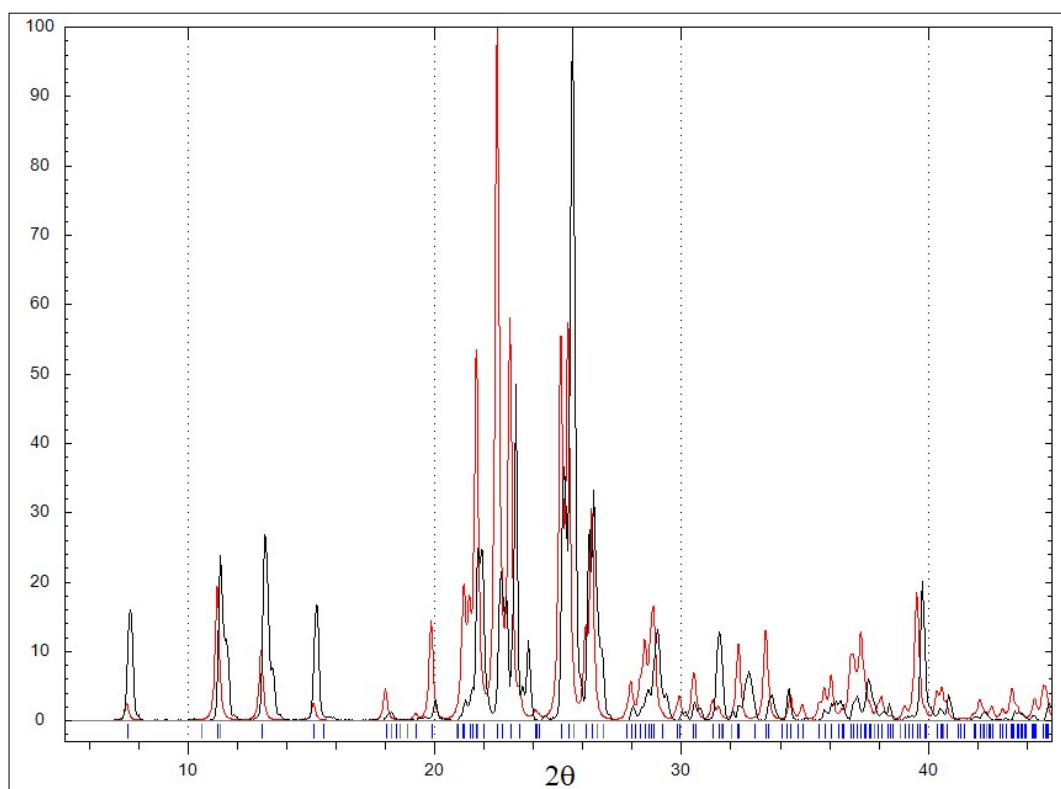
#### 5: C6Br.0.5H<sub>2</sub>O



**6: C<sub>6</sub>I<sub>0.5</sub>H<sub>2</sub>O**



**7: C<sub>6</sub>NO<sub>3</sub>**



8: C6ClO<sub>4</sub>

