

## Supporting Information

**Table S1.** IR spectra of the starting compounds and compounds **1** and **2**.

Components	<i>o</i> -C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>	Cl <sub>2</sub> Prz(CN) <sub>2</sub>	FeTPrzPACl <sub>8</sub> ( <b>1</b> )	(PPN <sup>+</sup> ) <sub>2</sub> ·{(CN <sup>-</sup> ) <sub>1.74</sub> (Cl <sup>-</sup> ) <sub>0.26</sub> FeTPrzPACl <sub>8</sub> } 2C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> ( <b>2</b> )
				(CN <sup>-</sup> ) <sub>1.74</sub> (Cl <sup>-</sup> ) <sub>0.26</sub> FeTPrzPACl <sub>8</sub>
		454m		453w
		731w	453w	501m
		985s	502w	650w*
		1129m	649w	692m*
		1146m	697m	749s*
		1170s	754w	782s
		1262s	787s	984m
		1320s	989m	1099w
		1331s	1100w	1137w
		1363w	1134w	1193m
		1503w	1195m	1256vs
		2237w	1260vs	1321s
		2237w (CN)	1328w	1515m
		2250w (CN)	1514m	1549w
PPN <sup>+</sup>			1549w	2103(CN)
				524m
				535m
				545m
				650w*
				692m*
				724s
				996w
				1208w
				1437m
				1482w
				1586w
Acetylacetone+ acetone			1535m	
<i>o</i> -C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub>			1618m	
	650w		1681m(coord. acetone?)	650w*
	748s			749s*
	1030m			1032m
	1122m			1116m
	1453m			1455m

sp - splitted band

\* - the bands are coincided.

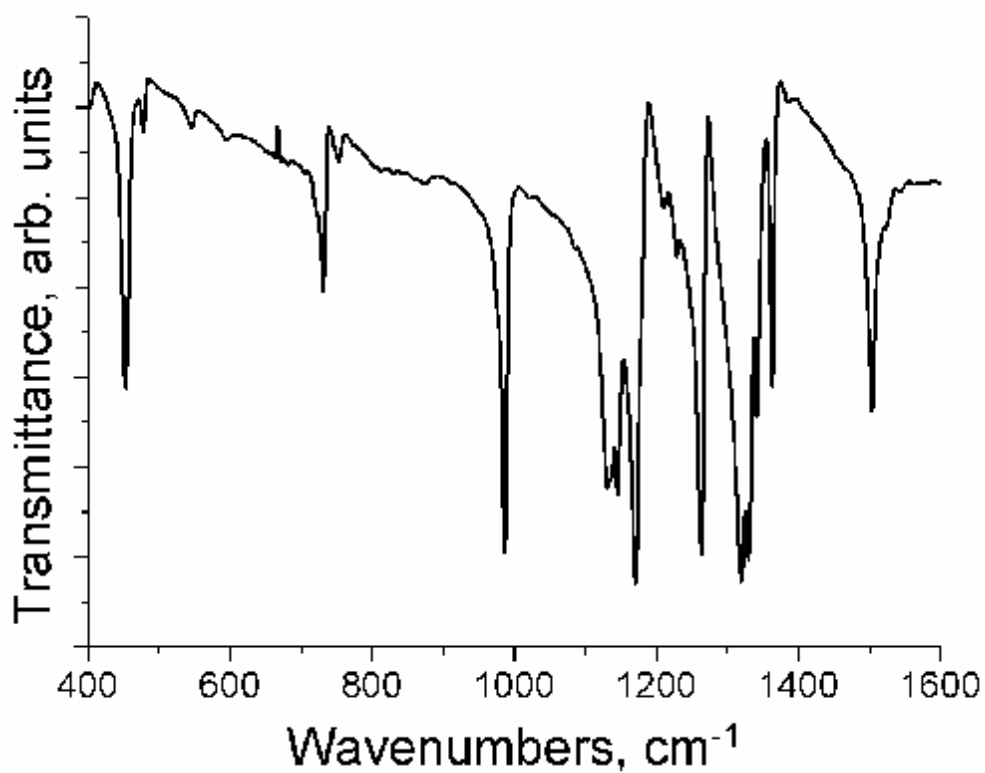


Figure 1S. IR spectrum of starting  $\text{Cl}_2\text{Prz}(\text{CN})_2$  in KBr pellet.

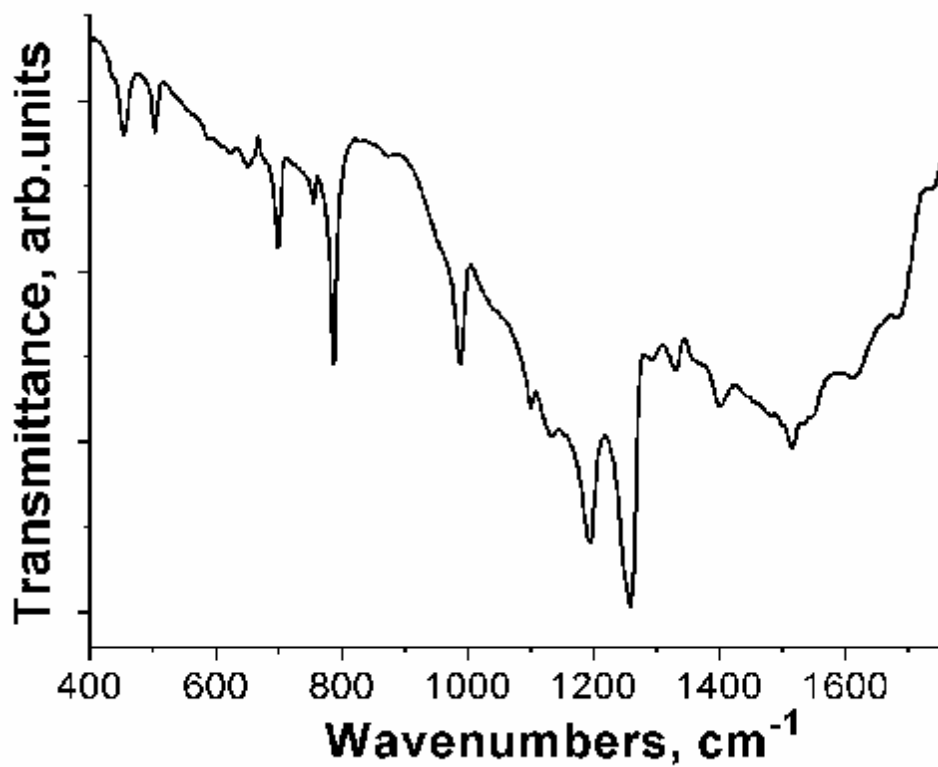
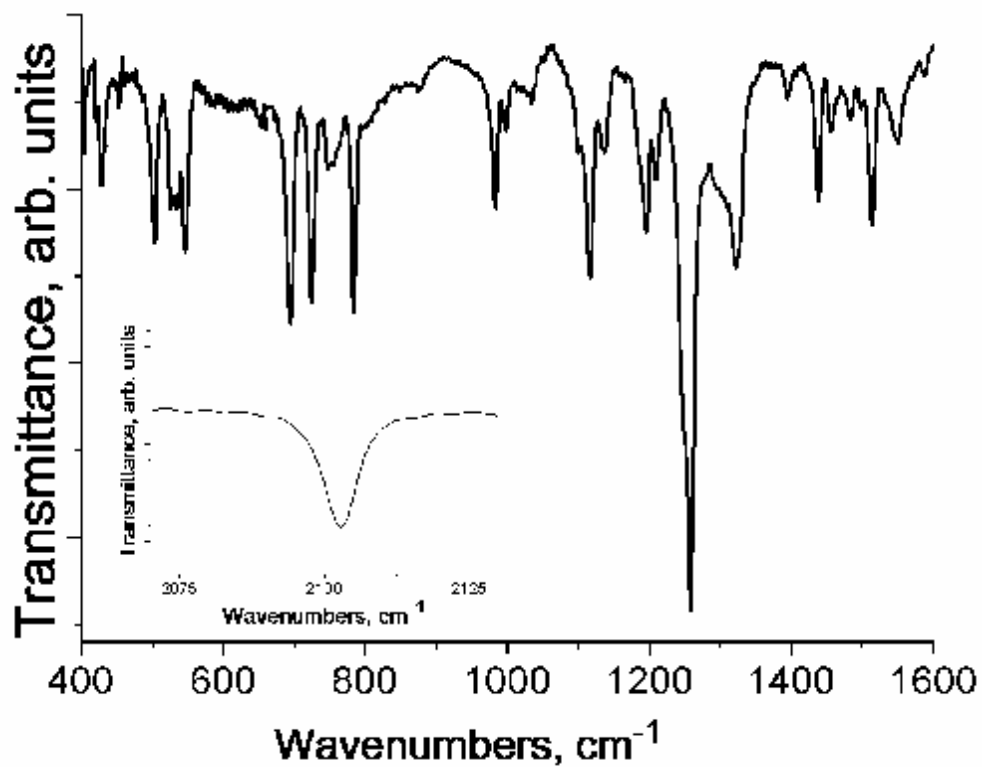


Figure 2S. IR spectrum of  $\text{FeTPrzPACl}_3$  (**1**) in KBr pellet.



**Figure 3S.** IR spectrum of  $(\text{PPN}^+)_2\{(\text{CN}^-)_{1.74}(\text{Cl}^-)_{0.26}\text{FeTPrzPzCl}_8\} \cdot 2\text{C}_6\text{H}_4\text{Cl}_2$  (**2**) in KBr pellet. Inset shows the range of 2075-2125  $\text{cm}^{-1}$  where the  $\text{C}\equiv\text{N}$  vibrations are manifested.