

Supporting information.

IR- spectra.

Table S1. IR-spectra (cm⁻¹ in KBr) of starting compounds and complexes **1** and **2**.

Components	Cp* ₂ Cr	Cp* ₂ Co	H ₂ Pc	(Cp* ₂ Co ⁺)(H ₂ Pc ⁻)·0.5 C ₆ H ₄ Cl ₂ ·0.7C ₆ H ₅ CN·0.3C ₆ H ₁₄ (1)	(Cp* ₂ Cr ⁺)(H ₂ Pc ⁻)·4C ₆ H ₄ Cl ₂ (2)	
Cp* ₂ M	418w	446w		436w	437w	
	1021s	1025s		1022m*	1034m*	
	1060w	1078m		1048s 1070m 1080s	1044m	
	1316s	1314s		1323s*	1319m*	
	1375s	1376m		1374m	-	
	-	-		1381m	1381m	
	1413w	1424w		-	-	
	1448w	1472m		1444s*	1438s	
	1610m	1617s		1636w	1636w	
	2906w	2904w		2917w	2917w	
	2962w	2960w		-	2972m	
	H ₂ Pc			443w	441w	451w
				487w	489w	480m
				556w	-	-
			614w	617m	618m	
			684w	-	-	
			717s	712m	710s	
			729s	718m	728s*	
			735s	729s*	735s	
			751m	766m	756m	
			873m	873m	872m	
			-	948w	948w	
			1004s	1003m	1004m	
			1093m	1093m	1090s\	
			1109m	1109s	1110s	
			1118s	-	-	
			1158w	1158w	1161w	
			1276m	1276m	1277m	
			1303m	1307m	-	
			1321m	1323s*	1319m*19m*	
			1334m	1332s	1334s	
			1437m	1444s*	1446s	
			1457w	1455s*	1456s*	
			1477w	1486s	-	
		1501m	-	-		
		3047w	3048w	3048w		
		-	3122w	-		
Solvents			3274w (N-H)	3299w (N-H)	3301w (N-H)	
				C ₆ H ₄ Cl ₂	C ₆ H ₄ Cl ₂	
				658w	659w	
				729s*	728s*	
				1022m*	1034m*	
			1455s*	1456s*		

* Bands are overlapped, w-weak intensity, m – middle intensity, s – strong intensity

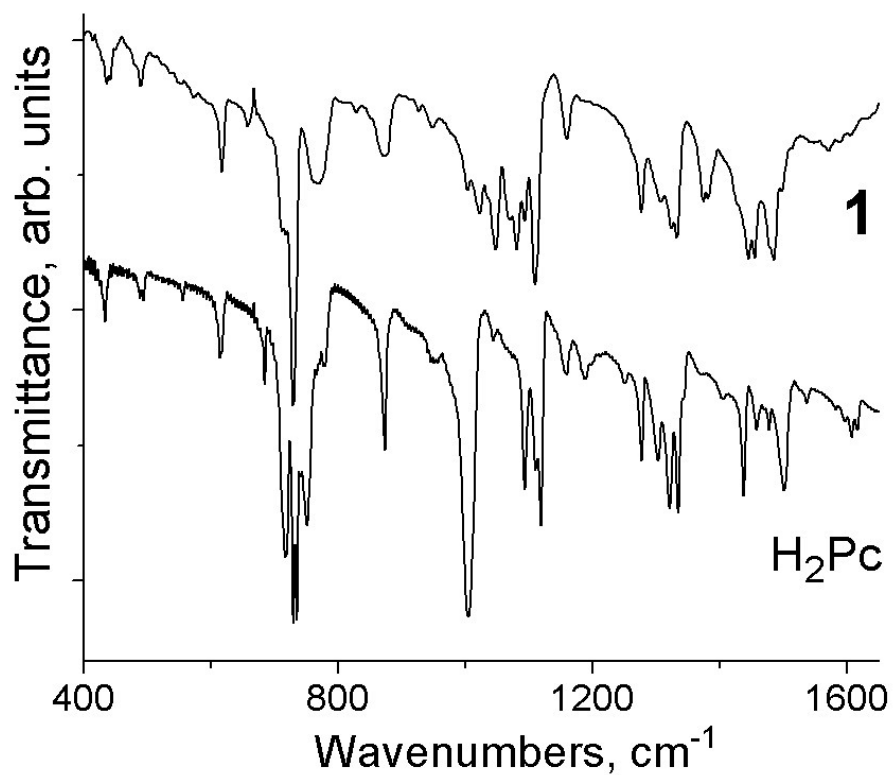


Fig. S1. IR spectrum of complex $(\text{Cp}^*_2\text{Co}^+)(\text{H}_2\text{Pc}^{\bullet-}) \cdot 0.5\text{C}_6\text{H}_4\text{Cl}_2 \cdot 0.7\text{C}_6\text{H}_5\text{CN} \cdot 0.3\text{C}_6\text{H}_{14}$ (**1**) measure in KBr pellet prepared in anaerobic conditions.

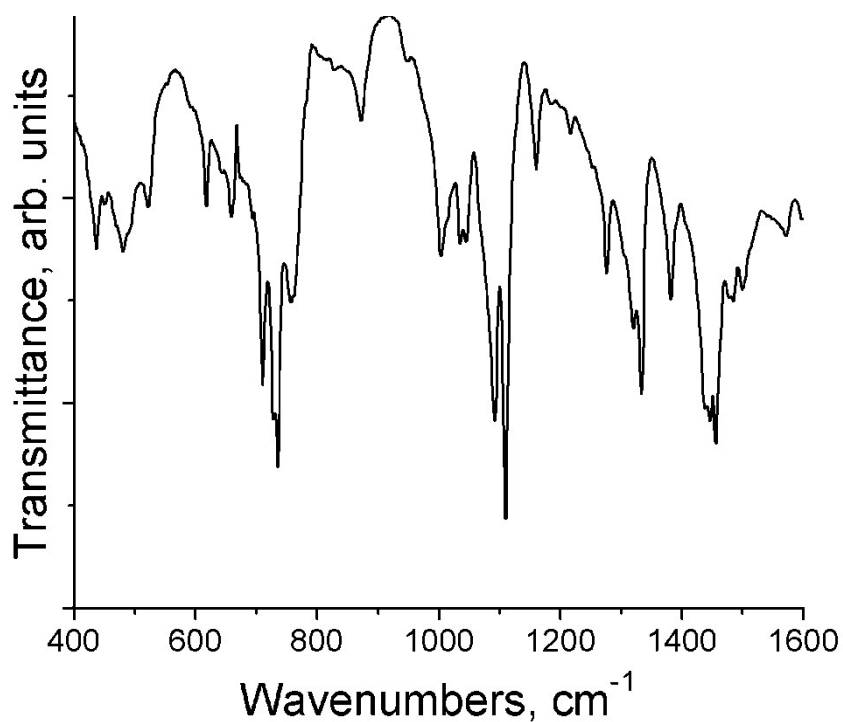


Fig. S2. IR spectrum of $(\text{Cp}^*_2\text{Cr}^+)(\text{H}_2\text{Pc}^{\bullet-}) \cdot 4\text{C}_6\text{H}_4\text{Cl}_2$ (**2**) measure in KBr pellet prepared in anaerobic conditions.