

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

Components of the complex	Co(dppe)Br ₂	C ₆₀	C ₆ H ₄ Cl ₂	1
Co⁺(dppe)	418w 476m 512m 530s 663w 691s sp 697s sp 719m 736m 852w 877w 998w 1026w 1090m sp 1100m sp 1159w 1181w 1275w 1308w 1334w 1433s 1483m 2852w 2924w 2956w 3050m 3073w			418w 480w 498w 533s* 668m 693s sp 696s sp - 738s* - 871w 998w 1032w* 1092s 1157w 1180w* 1275w 1305w - 1432s 1481w 2856w 2918m - 3050w 3072w
C₆₀^{•-}		526s 576m 1182m 1429s		533s* 576s 1180w* 1390s
C₆H₄Cl₂			657w 748s 1030m 1122m 1453m	660w 738s* 1032w* 1123m 1453m

sp - splitted band

* - the bands are coincided.

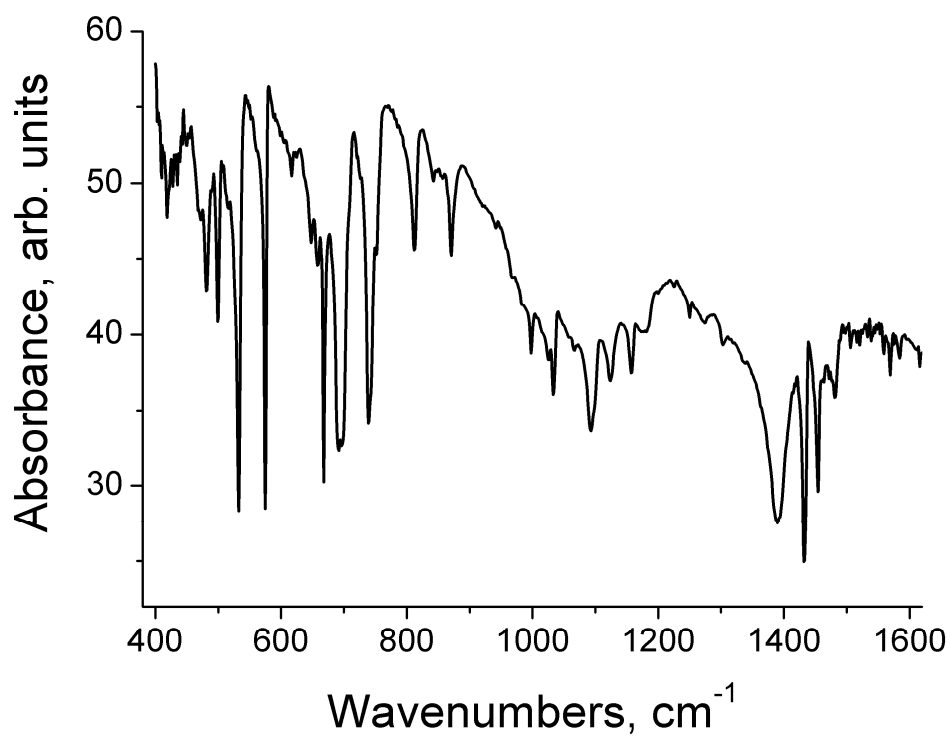


Fig. 1S. IR spectrum of **1** in KBr pellet.

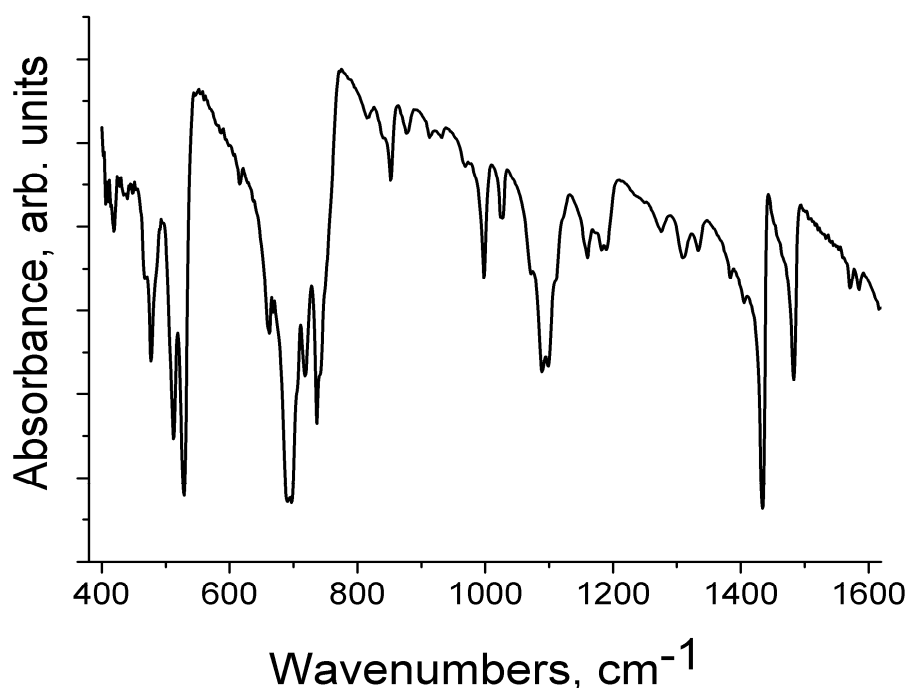


Fig. 2S. IR spectrum of Co(dppe)Br2 in KBr pellet.

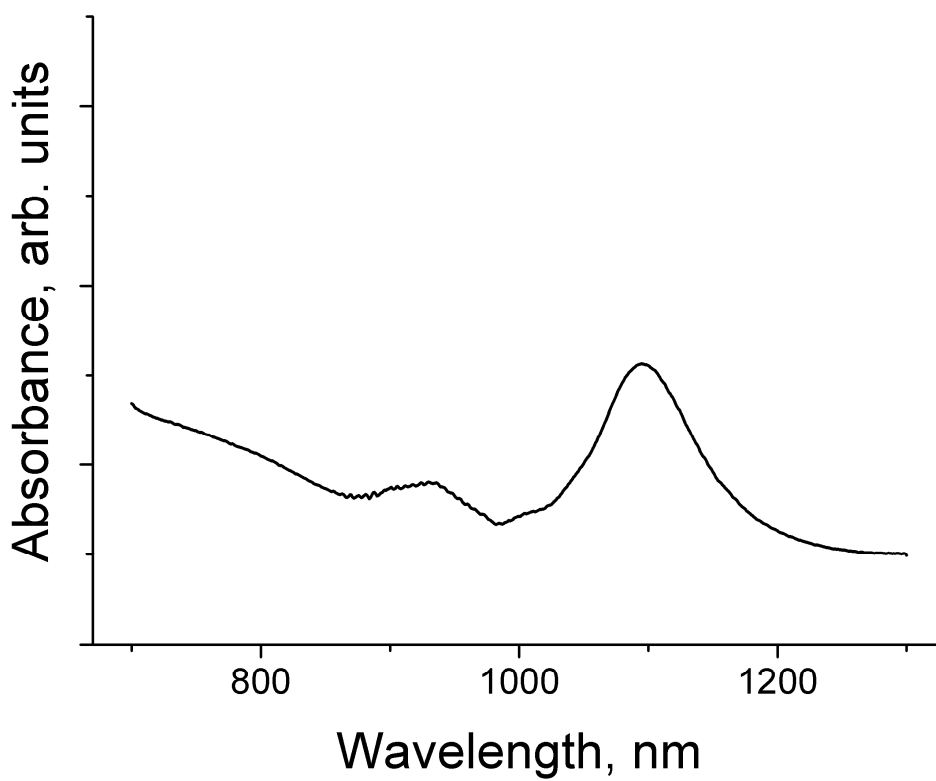


Fig. 3S. Spectrum of **1** in the NIR range in KBr pellet .

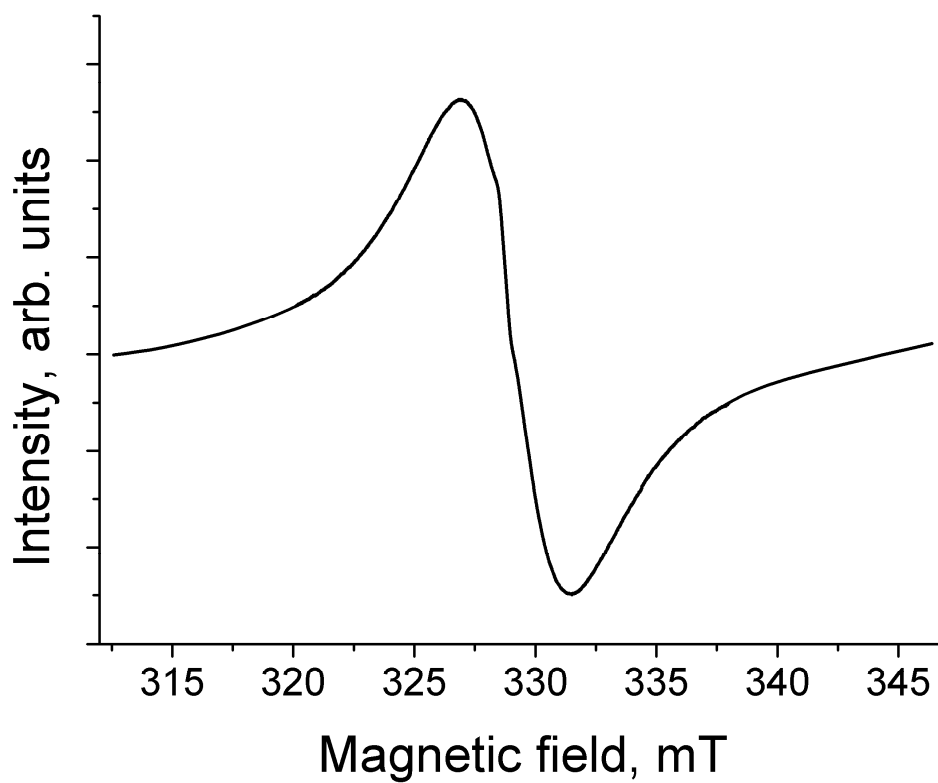


Fig. 4S. EPR spectrum of polycrystalline **1** at room temperature.