Supporting information
IR spectra

Table S1. IR spectra of **1-4**.

Components	**1**	**2**	**3**	**4**
$Cation^{+}$	713w 758w 893w 920w 962w 1000w 1075w 1144w 1191w 1220w 1290w 1306w 1324w 1453s* 1464m	470w 495w 600w 686w 751m* 781m 856w 875w 911w 953m 1060m 1129s 1162w 1217m 1255s 1281w 1328w 1357m 1451s* 1506s 1596m	716w 747w 818w 940m 1100s 1133s 1259w 1299m 1355s 1444m 1455m 1464m	500s 533s 544m 691s 723s 791w 998w 1115s 1157w 1177w 1250s 1271w 1291w 1306w 1324w 1435s 1482w 1573w 1586w
C_{60}^{2-}	518w 572s 1180w 1370s	527w 574m - 1374m	527w 574s 1181w 1373s	525w 574s 1184w 1373m
Solvents	$C_6H_4Cl_2$ 658w 738w 1033m 1122m 1453s*	$C_6H_4Cl_2$ 658w 740m 1033w - 1451s* C_6H_5CN 549w 751m* 2235w		$C_6H_4Cl_2$ 660m 742m 1033w - 1455w

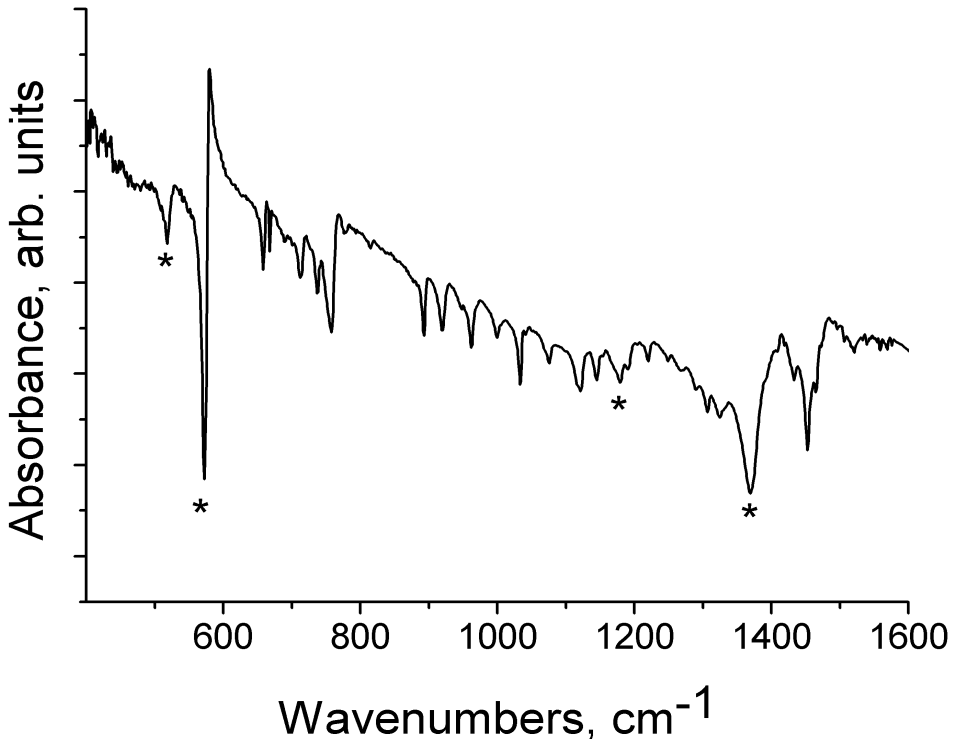

Fig. 1S. IR spectrum of **1** in KBr pellet measured in anaerobic conditions. The bands of C_{60}^{2-} are marked by stars.

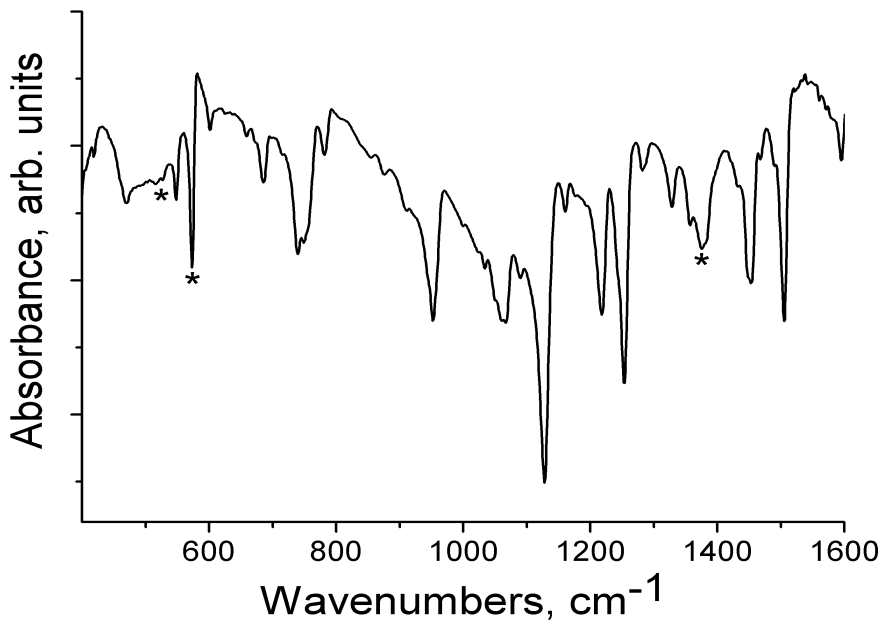

Fig. 2S. IR spectrum of **2** in KBr pellet measured in anaerobic conditions. The bands of C_{60}^{2-} are marked by stars.

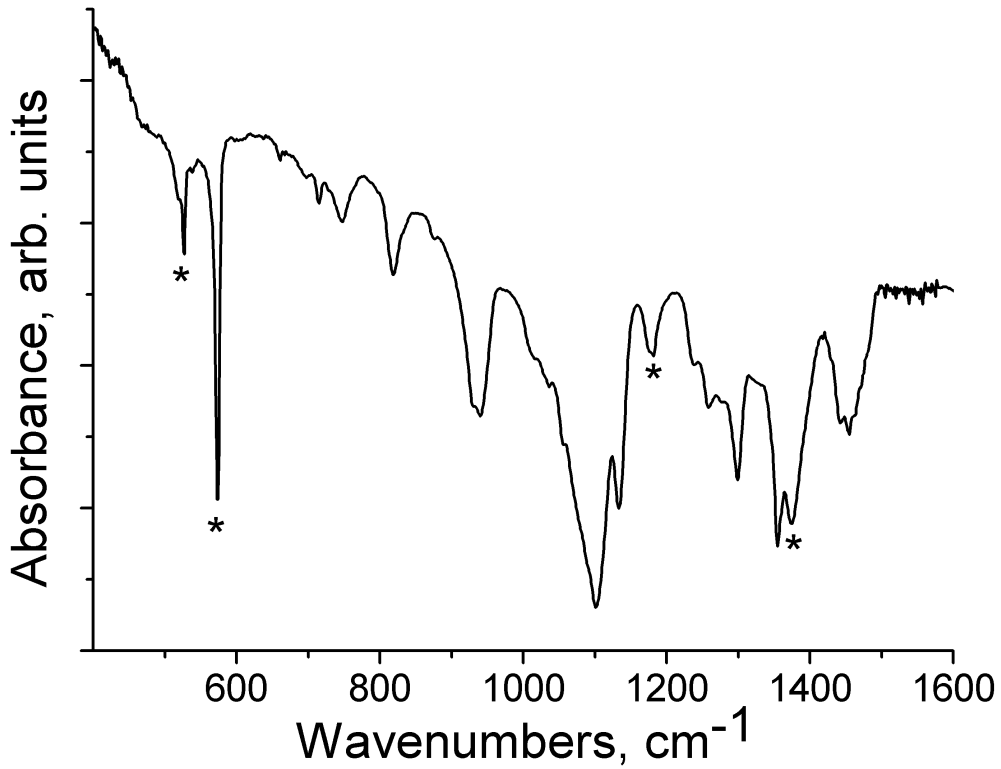

Fig. 3S. IR spectrum of **3** in KBr pellet measured in anaerobic conditions. The bands of C_{60}^{2-} are marked by stars.

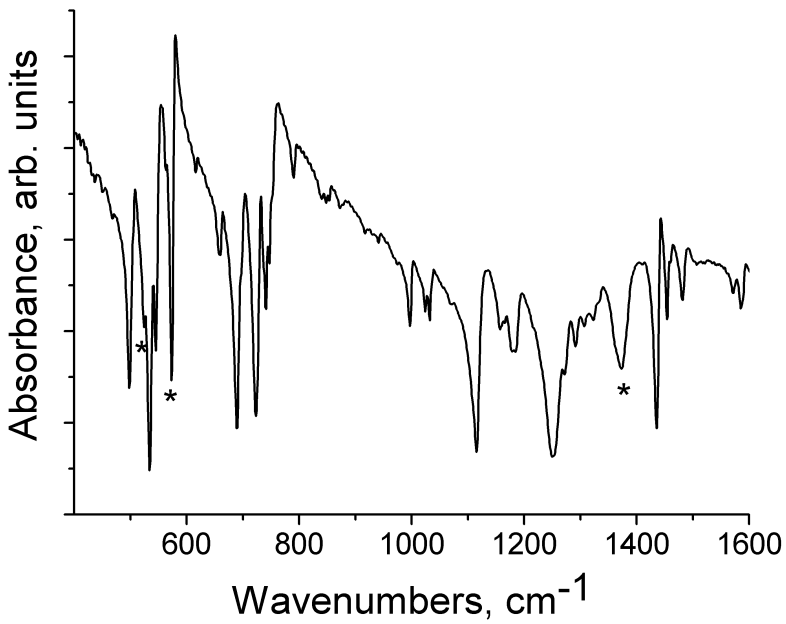

Fig. 4S. IR spectrum of **4** in KBr pellet measured in anaerobic conditions. The bands of C_{60}^{2-} are marked by stars.

UV-vis-NIR spectra.

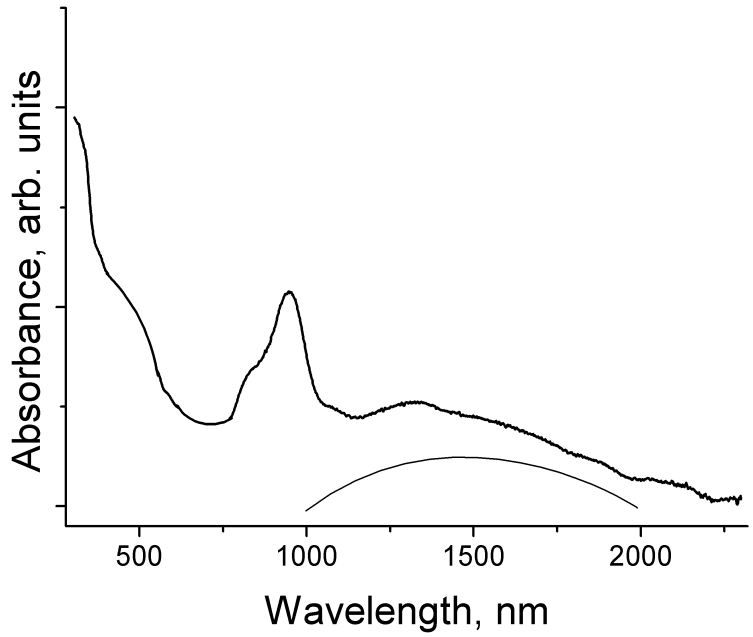

Fig. 5S. Spectrum of **1** in the UV-visible and NIR ranges in KBr pellet measured in anaerobic conditions.

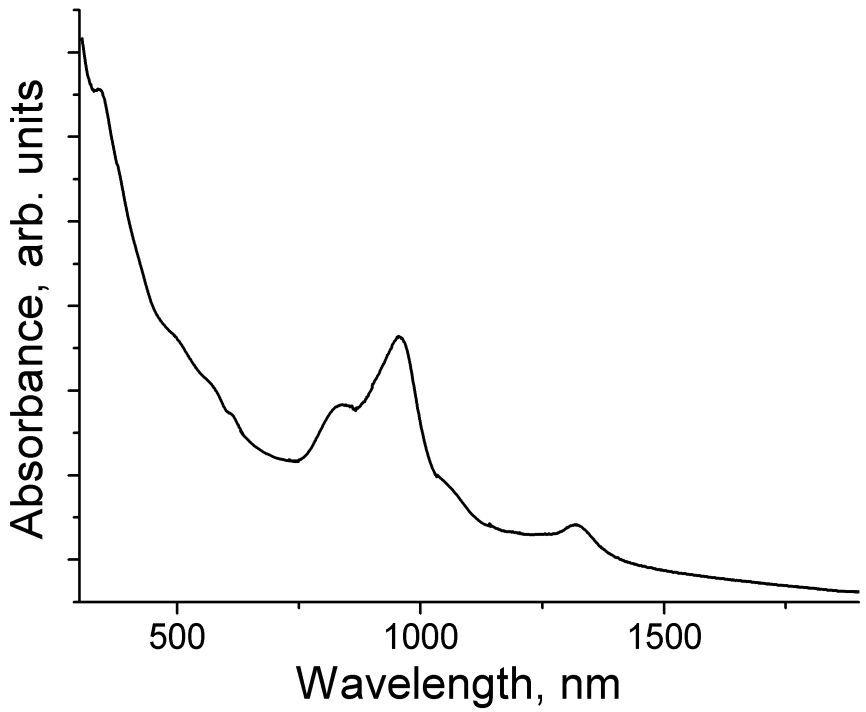

Fig. 6S. Spectrum of **2** in the UV-visible and NIR ranges in KBr pellet measured in anaerobic conditions.

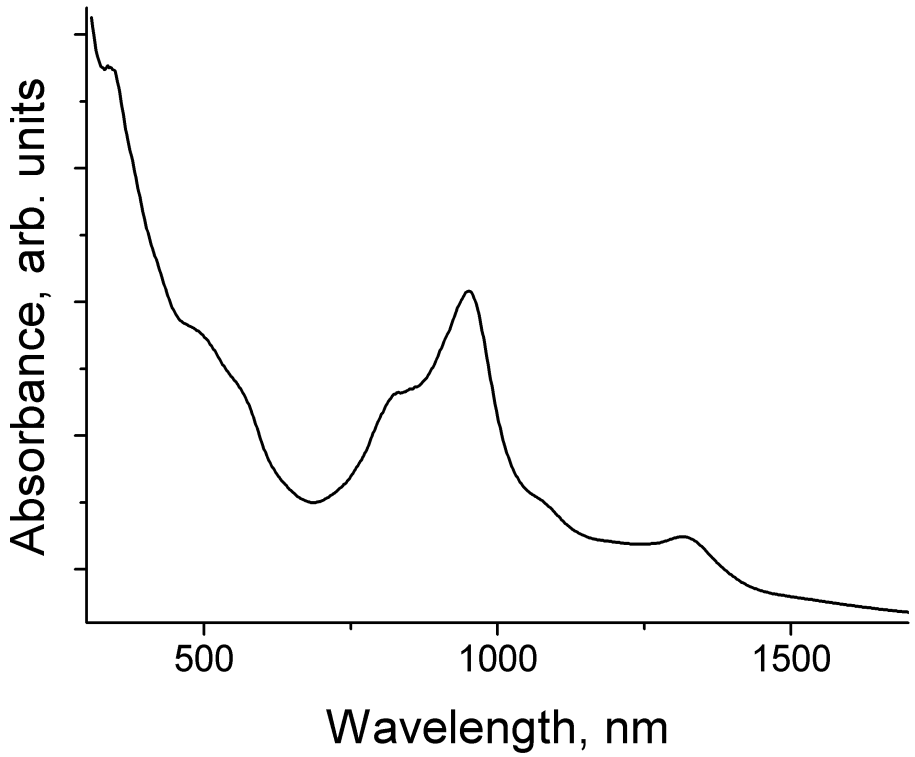

Fig. 7S. Spectrum of **3** in the UV-visible and NIR ranges in KBr pellet measured in anae

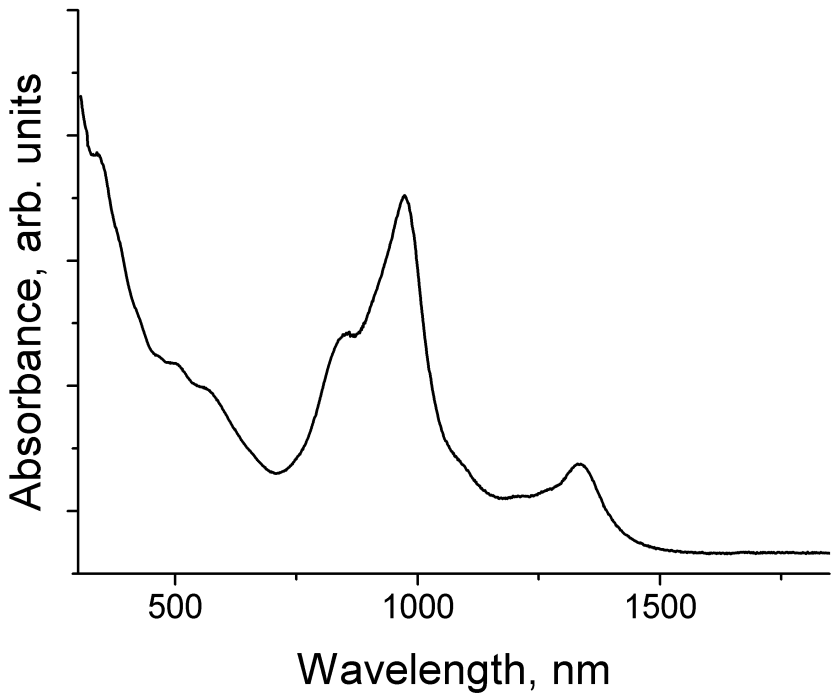

Fig. 8S. Spectrum of **4** in the UV-visible and NIR ranges in KBr pellet measured in anaerobic conditions.

EPR spectra.

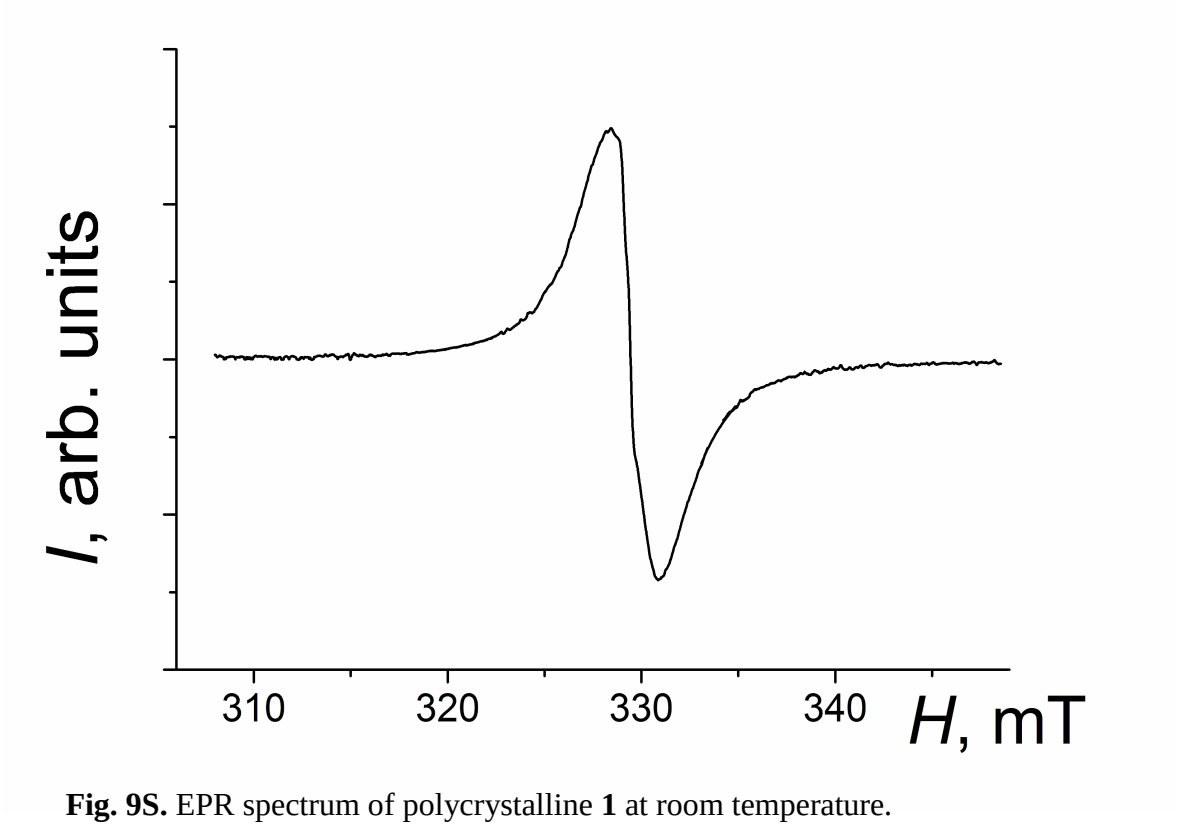

Fig. 9S. EPR spectrum of polycrystalline **1** at room temperature.

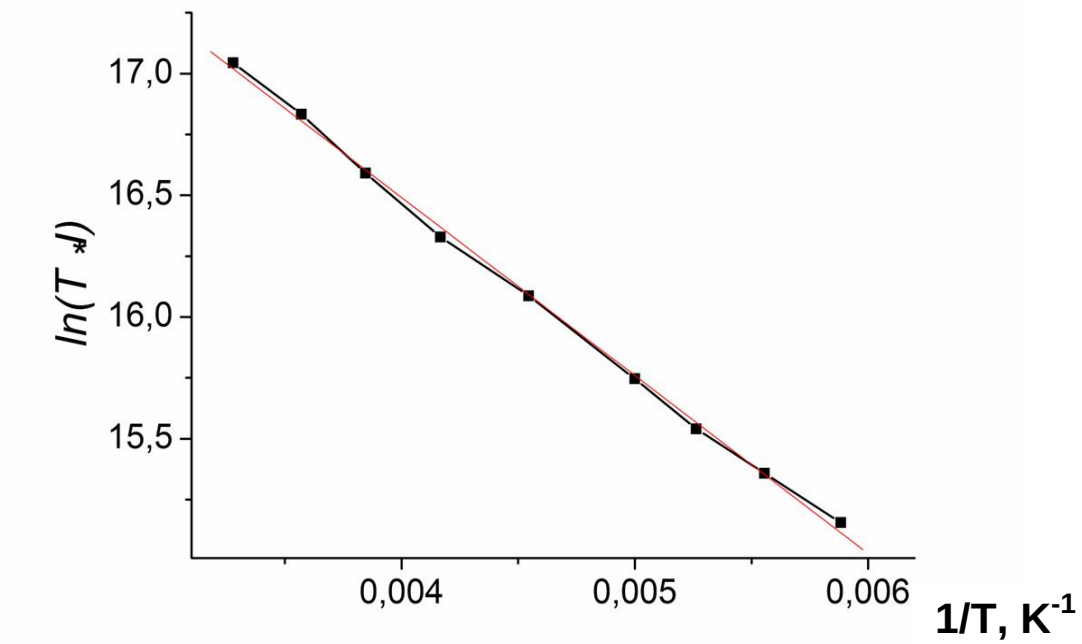

Fig. 10S. Linear dependence of *ln*(*T***I*) versus reverse temperature for polycrystalline **1** in the 170-305 K range.

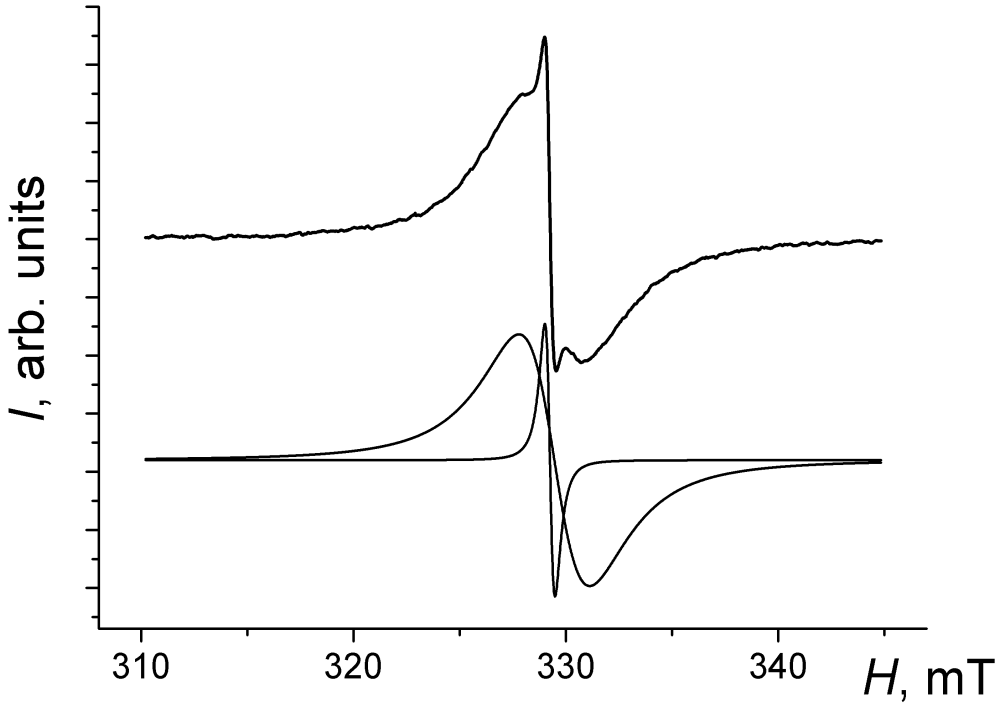

Fig. 11S. EPR spectrum of polycrystalline **2** at room temperature. Below is shown the fitting of the signal by two Lorentzian lines (broad and narrow lines).

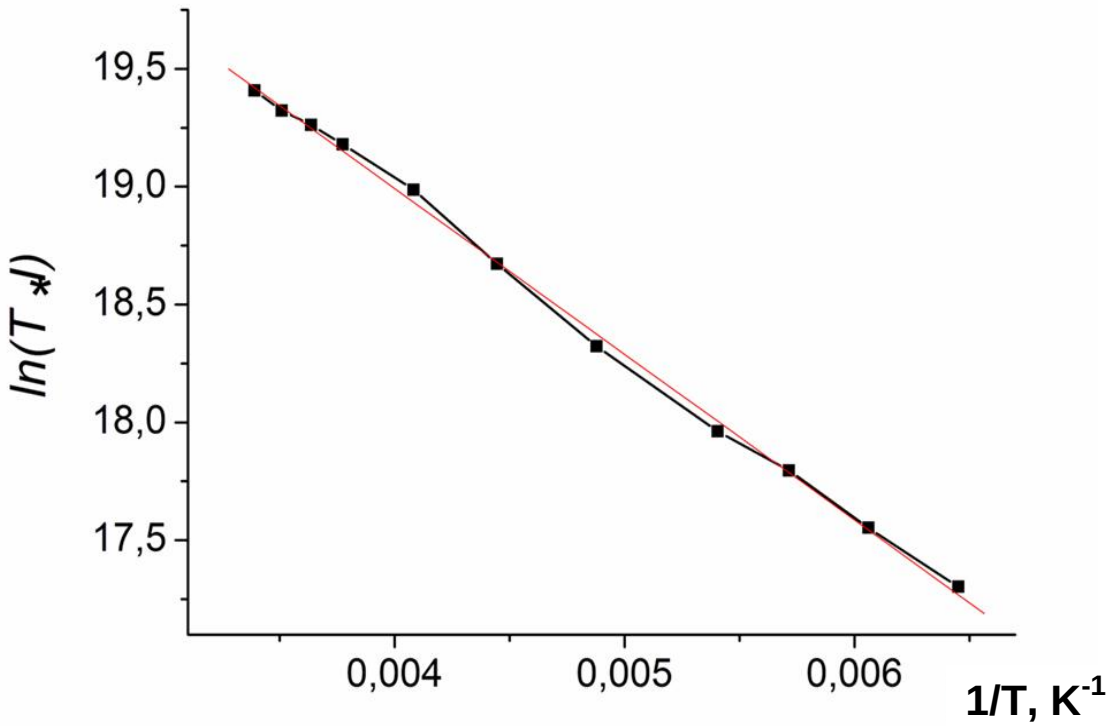

Fig. 12S. Linear dependence of *ln*(*T***I*) versus reverse temperature for polycrystalline **2** in the 155-295 K range.

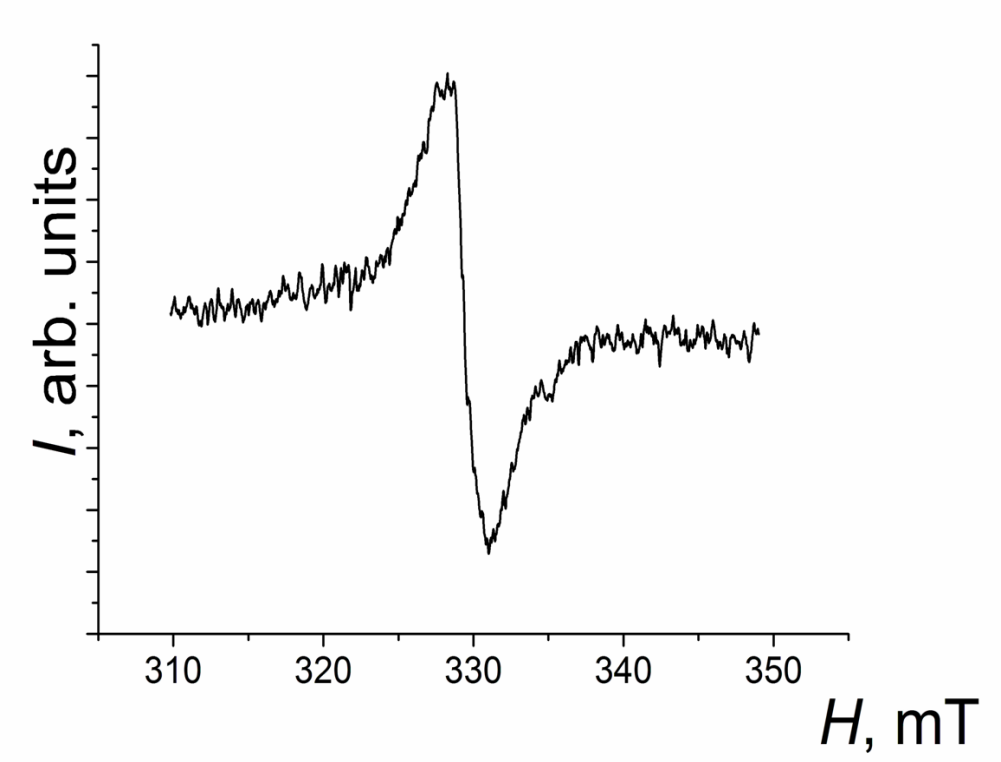

Fig. 13S. EPR spectrum of single crystal of **3** at room temperature.

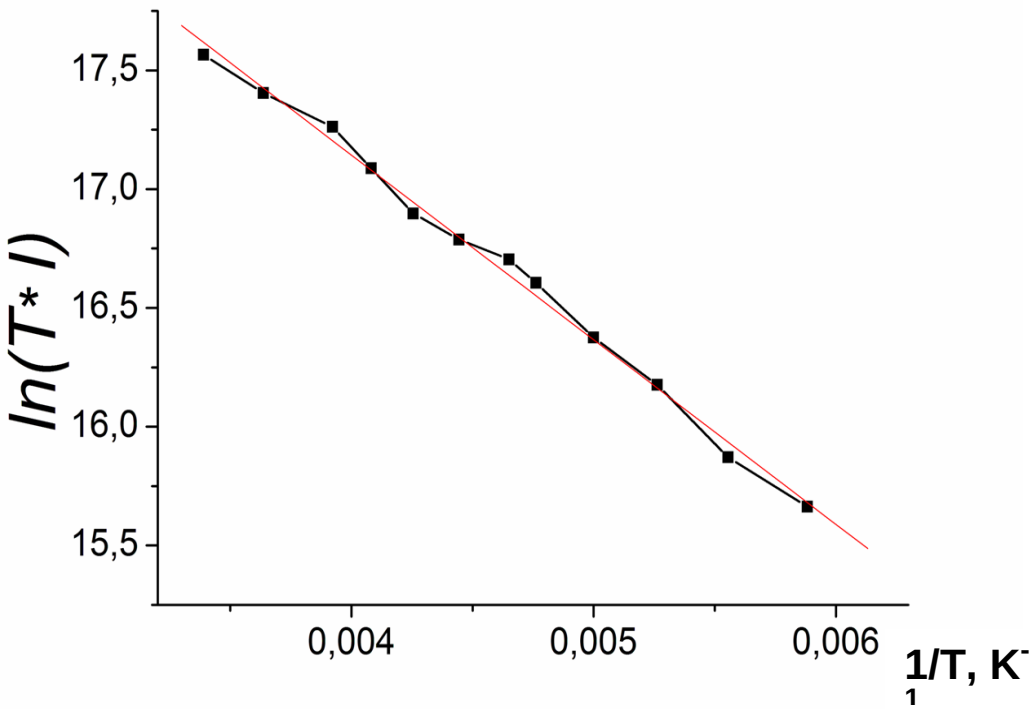

Fig. 14S. Linear dependence of *ln*(*T***I*) versus reverse temperature for single crystal of **3** in the 170-295 K range.

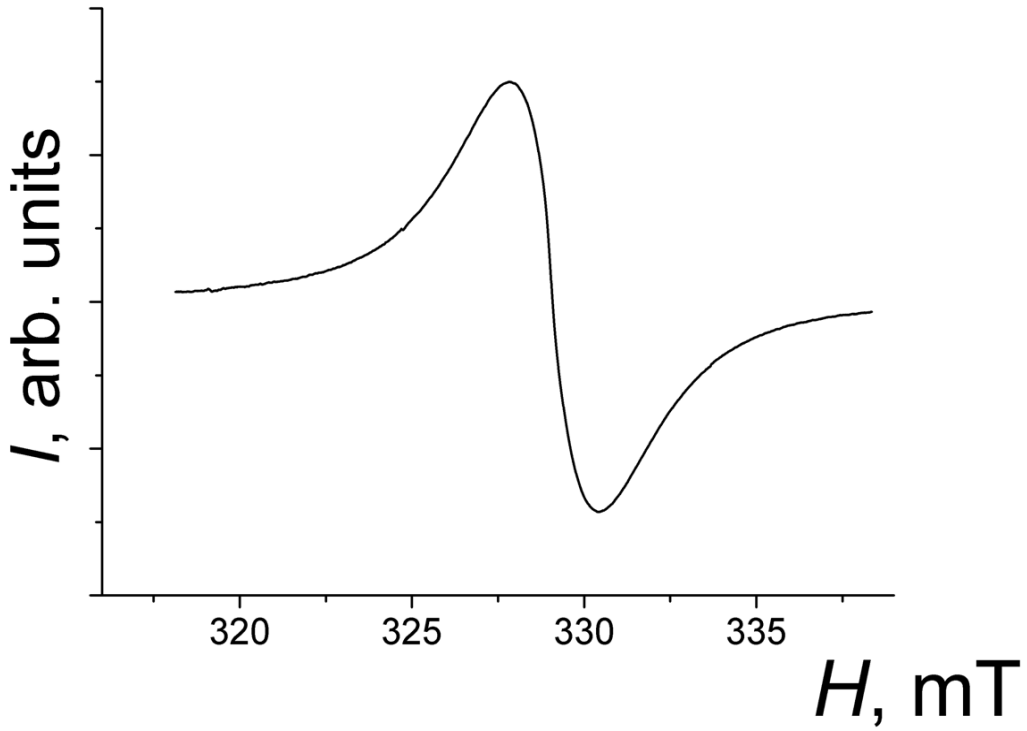

Fig. 15S. EPR spectrum of polycrystalline **4** at room temperature.

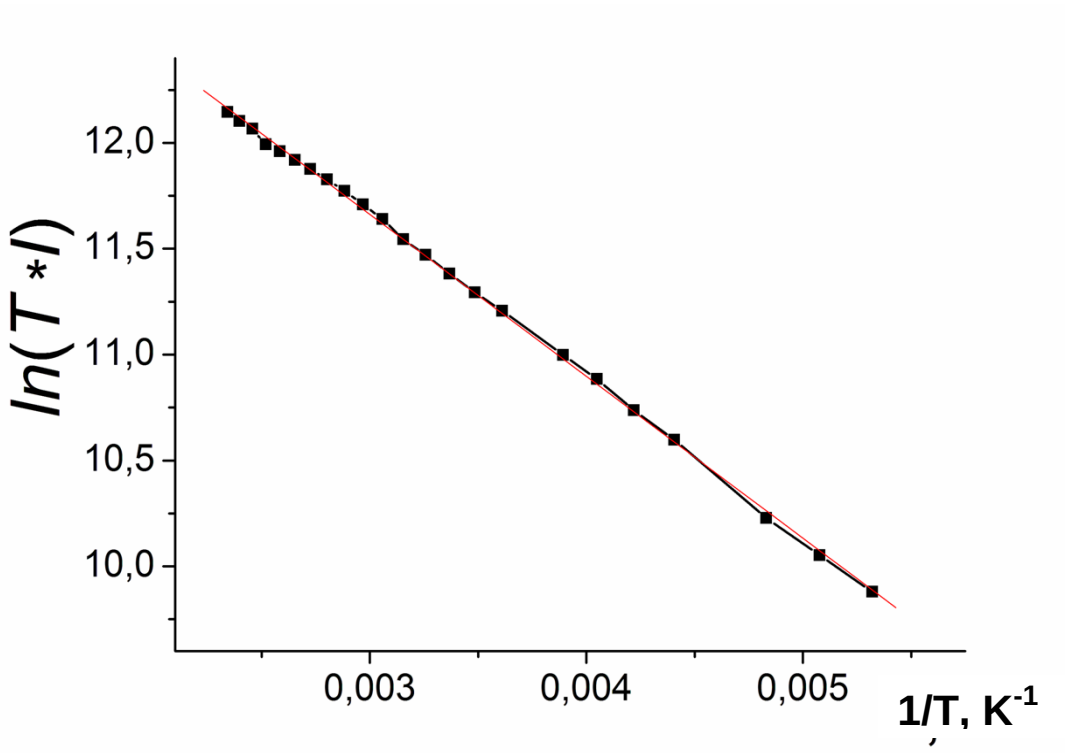

Fig. 16S. Linear dependence of *ln*(*T***I*) versus reverse temperature for polycrystalline **4** in the 190-427 K range.