

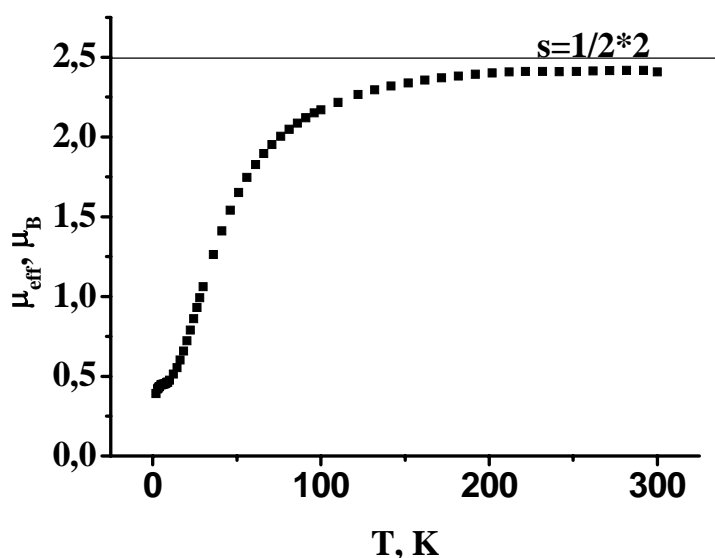
## Supplementary materials

**Analysis of Fe in 1** was made with electronical probe microanalysis, which gives an image of the investigated object in the secondary and reflected electrons, as well as X-ray spectral local microanalysis. To do this, digital scanning electron microscope Vega II XMU (produced by Tescan, Czech Republic, Brno) was used equipped with detectors of secondary (Secondary Electron (SE)), reflected (Backscatter Electron (BSE)) electrons and secondary electrons low vacuum (Low Vacuum Secondary Tescan Detector - LVSTD) on YAG-crystals, as well as energy-dispersion spectrometer with Si(Li) semiconductor detector INCA Energy 450 (produced by Oxford Instruments Ltd., Britain) and wave-dispersion spectrometer INCA Wave 700 (produced by Oxford Instruments Ltd., Britain).

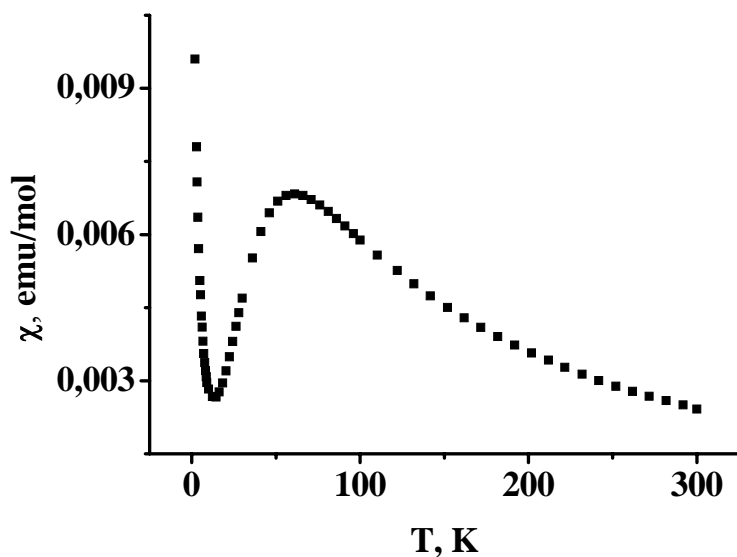
**Analysis of S, N, N, S, O** is made with elementary (CHNSO / CI) analyzer by incineration in the presence of pure oxygen with subsequent reduction of oxides and differentiation in the chromatographic column. The identification of elements is based on the content of the CO<sub>2</sub>, N<sub>2</sub>, H<sub>2</sub>O, SO<sub>2</sub> in combustion products. Each oxide signal registration is done with heat transfer detector. Determination of oxygen is carried out using pyrolysis, followed by the detection of CO. Identification of chlorine is carried out in a special coulometric measuring cell.

Experimental data: Fe=18,05 %; S=9,85 %; N=17,54 %; C=35,64 %; H=3,60 %; O=15,32 %.  
Calculated data for **C<sub>20</sub>H<sub>22</sub>Fe<sub>2</sub>N<sub>8</sub>O<sub>6</sub>S<sub>2</sub>**: Fe=17,34 %; S=9.91%; N=17.34%; C=37.15%; H=3.40%; O=14,86 %.

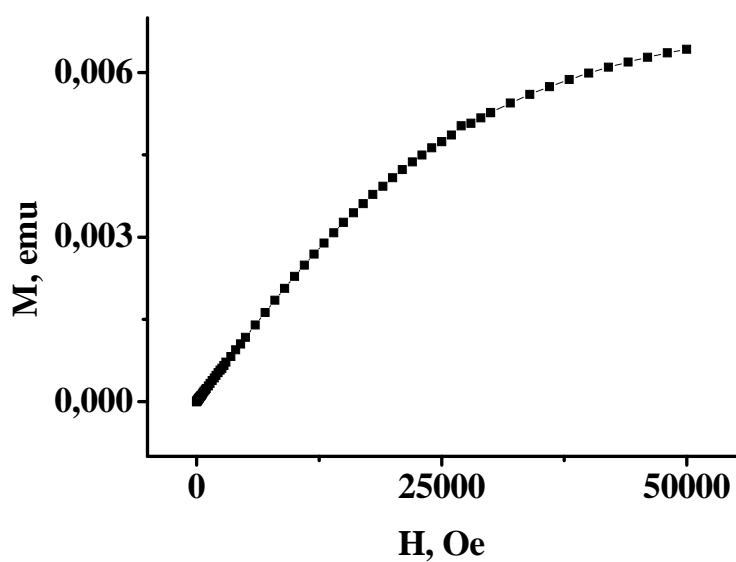
### Magnetic measurements.



Plot of the effective magnetic moment  $\mu_{\text{eff}}$  of complex **1** vs. Temperature in constant magnetic field of 1 kOe. The effective magnetic moment is normalized to the Bohr magneton. The effective magnetic moments corresponding to the paramagnetic systems with two spins 1/2 in the unit cell are indicated by horizontal lines.



Magnetic susceptibility  $\chi$  of complex **1** vs. the temperature in a constant magnetic field of 1 kOe. The experimental data are represented by points.



Plot of the magnetic moment of a sample of complex **1** vs. the constant magnetic field  $H$  at  $T = 2$  K.