

SEMINARIUM Z MAGNETYZMU I NADPRZEWODNICTWA

Uprzejmie zawiadamiamy, że w **środe**

28 listopada 2018 r., o godz.10:00

w sali 203 (bud. 1) odbędzie się seminarium, na którym

dr Yuliya Savina

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of the National Academy of Sciences of Ukraine, Kharkiv, Ukraine*

wyłosi referat na temat:

„Magnetic and thermal properties of the quasi-one-dimensional Heisenberg magnet β -TeVO₄”

The experimental study of magnetic phase transitions and of peculiarities of the magnetic and thermodynamic behavior of a quasi-one-dimensional magnet β -TeVO₄ will be presented.

The β -TeVO₄ compound is found to be a quasi-one-dimensional magnet consisting of weakly interacting zigzag chains of V⁴⁺ ions ($S = \frac{1}{2}$) with frustrated intrachain exchange couplings. It is shown that the phase H - T diagram of the magnet contains four different spin-modulated phases, which are described by an isotropic one-dimensional J_1 - J_2 model with two competing interactions. It is found that the competition of ferromagnetic exchange between the magnetic ions being the nearest neighbors and antiferromagnetic exchange between the next-nearest neighbors results in the spin-modulated chiral phase as the ground state of β -TeVO₄. In the phase diagram for $H||b$, the tricritical point has been found, which is related to the spatial anisotropy of the ground state of β -TeVO₄.

Serdecznie zapraszamy

Roman Puźniak
Henryk Szymczak
Andrzej Szewczyk