Struct Chem Crystallogr Commun, 3:2
DOI: 10.21767/2470-9905-C1-003

Thermally indused phase transitions in *breathing crystals*: Structural peculiarities

G. Romanenko
International Tomography Center, Russia

A family of heterospin complexes based on copper (II) hexafluoroacetylacetonate $Cu(hfac)_2$ with persistent nitronyl nitroxides L^R was named as *breathing crystals* due to their ability to undergo reversible 'Single-Crystal-to-Single-Crystal' phase transformations. Studying of these processes facilitates a detail investigation and understanding of solid dynamics. Phase exchange clusters 'Cu-O•-N' or 'N-•O-Cu-O•-N'. This reorganization causes an appearance of magnetic anomalies on the dependence of the effective magnetic moment vs temperature (or pressure) [1-5]. Our studies of more than one hundred complexes showed a wide variety of magnetic anomalies caused by structural transformations and provide valuable information on the spin state in a heterospin solid.

romanenko@tomo.nsc.ru