

CURRICULUM VITAE



Figure 1: **Gennadiy Grechnev**

BORN: July 29, 1951 , Kharkov, Ukraine.

Education, academic degrees and titles :

Graduated: Kharkov State University, Ukraine, 1974.

Ph.D. (Solid State Physics), Thesis "Effect of temperature, impurities and pressure on the energy spectrum and magnetism in the hexagonal metals". Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 1982.

Dr.Sc. (Solid State Physics), Thesis "Electronic structure of d- and f-metal compounds: effects of hybridization and spin polarization". B.Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 2007.

Professor (Solid State Physics).

Awarded The 2016 State Prize of Ukraine in the field of science and technology (G. E. Grechnev et al.): Functional properties of the bulk and surface ordered systems and fabrication of new metal-containing materials and structures.

Appointments :

Obligatory service: 1974-1976.

Junior Research Fellow, Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 1976–1980.

Research Fellow, Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 1980–1984.

Senior Research Fellow, Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 1984 – 2008.

Head of Department of Magnetic and Elastic Properties of Solids, B. Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 2008 – till the present time.

Deputy Director of B. Verkin Institute for Low Temperature Physics and Engineering, Kharkov, Ukraine, 2014 – till the present time.

Research interests

Electronic structure and bulk properties of intermetallic compounds and alloys.

Magnetic properties of transition, rare-earth, and actinide metals and compounds, spin-polarized systems, magnetic susceptibility.

Electronic structure of superconducting systems.

CEF effects, total energy, bulk moduli.

Main courses, seminars and lectures given

Conduction electron g-factors in transition metals.

Electronic structure of RGa_3 compounds.

Magnetovolume effect in UX_3 compounds.

Electronic structure and magnetic properties of lithium manganese spinels.

Magnetic anisotropy of HCP-iron.

Optical spectra of novel lithium batteries.

Electronic structure and magnetic properties of transition-metal and rare-earth borides.

Electronic structure and magnetic properties of BiFeO_3 , $\text{SrFe}_{12}\text{O}_{19}$ and $\text{SrCoTiFe}_{10}\text{O}_{19}$ compounds.

Electronic structure and magnetism of iron-based superconductors: $\text{FeSe}(\text{Te})$ compounds.

Electronic Structure Evolution with Pressure in Narrow Band Gap Oxides and Chalcogenides.

Theses directed

I have supervised 7 PhD students.

”Electronic structure and de Haas - van Alphen effect in Cd-Mg compounds”, V.V.Khotkevich, Kharkov, Ukraine, 1989.

”Anisotropy of conduction electron g-factors in transition metals”, N.V.Savchenko, Kharkov, Ukraine, 1992.

”Electronic structure of hexaborides of transition and rare-earth metals”, A.V.Logosha, Kharkov, Ukraine, 2009.

”Electronic energy spectrum and diamagnetism of metallic systems with cubic structures Cu₃Au and UB₁₂”, A.E.Baranovskiy, Kharkov, Ukraine, 2010.

”Magnetic and magneto-elastic properties of anisotropic metallic systems based on d-elements”, A.V.Fedorchenko, Kharkov, Ukraine, 2012.

”Manifestations of the electronic structure in the magnetic and superconducting properties of layered compounds of transition metals”, A.A.Lyogenkaya, Kharkov, Ukraine, 2017.

”Magneto-elastic properties of narrow-band systems based on 4f- and 3d-metals”, I.P.Kobzar, Kharkov, Ukraine, 2018.

Publications

Number of papers published: about 120.

Number of times my papers have been quoted: about 750.

H-factor – 15