



## Pavlo Solokha

Associate professor

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### *Education and training*

2008

#### **PhD in Chemistry**

Interaction of the components in Tb-(Fe Ni Cu)-(Zn Mg) ternary systems and related to them (phase equilibria crystal structure and physical properties of compounds) - 5/5

Ivan Franko National University of Lviv - Lviv - UA

2003

#### **Master degree in Chemistry**

Isothermal section of the Tb-(Cu Ni)-Zn ternary systems - 5/5

Ivan Franko National University of Lviv - Lviv - UA

### *Academic experience*

2013 - ONGOING

#### **Researcher (B type)**

University of Genoa - Genoa - IT

crystallography of intermetallic compounds their crystal-chemical relations  
chemical bond studies for intermetallics

### *Language skills*

#### **Ukrainian**

Mother tongue

#### **Russian**

Mother tongue

#### **English**

Proficient

#### **French**

Independent

### *Research interests*

- Study of new ternary and multicomponent alloys
- Experimental determination of phase equilibria of binary and multicomponent metal systems
- Crystallographic characterization of intermetallic phases, in particular:
  - Study of the ordering phenomenon of vacancies for binary and ternary germanides and structural problems related to it;
  - Crystallographic modeling based on the symmetry principle using TOPOS;
  - Modulated structures; twins of intermetallic crystals, etc.
- Chemical bonding studies in intermetallics, especially polar

intermetallics.

### ***Assignments abroad***

Dr. Solokha has spent several research periods abroad, during which he has investigated aspects related to his research topics, in the context of national and international collaborations:

- June 2018, at the Institute of Experimental Physics, Technische Universität Bergakademie Freiberg, Germany. Object of the research activity:

'Application of the' high entropy 'method for the resolution of complex crystalline structures and construction of electronic density maps.

Collaboration with dr. Tilmann Leisegang.

- Several stays (2014-2017), at the Samara Center for Theoretical Materials Science (SCTMS), Samara State University, Russia. Object of the research activity: 'Topological analysis of intermetallic compounds'. Collaboration with Prof. V. Blatov (Samara State University) and with Prof. D.M. Proserpio (University of Milan).

- August-September 2012 at the Max Planck Institute for Chemical Physics of Solids, Dresden, Germany. Object of the research activity: 'Analysis of the chemical bond in the intermetallic compounds through the ELI-D function'.

Collaboration with Prof. Yu. Grin, the dr. F. Wagner and dr. A. Baranov.

- December 2009 at the Institute of Inorganic Chemistry at RWTH Aachen University, Germany. Object of the research activity: 'Calculations of electronic structure with the LMTO-ASA program'. Collaboration with Prof. R. Dronskowski.

- 2005-2008 (for a total period of 18 months) at the Institut Charles Gerhardt, Montpellier, France (under the supervision of Prof. JC Tedenac), Object of the research activity: studies on some aspects related to the crystal-chemistry of alloys ternaries of rare earths (rare earth alloys - {Zn, Cu, Ni} -Mg) within the Research Doctorate.