

(CURRICULUM VITAE)

Lebenslauf

**Name** Stepan Mudry

**Date of Birth** 17.04.1949.

**Place of Birth** Solonka villiage, Lviv Region,  
Ukraine

**Position** Prof. of Physics of Metal Department,  
Ivan Franko Lviv National University



**DEGREES RECEIVED**

<u>Degree</u>	<u>Institution</u>	<u>Department</u>	<u>Year</u>
M.A.Sc.	Lviv State University (Ukraine)	Physics of Metals	1971
Ph.D.	Lviv State University (Ukraine)	Physics of Metals	1979
	Short range order in liquid TI-based alloys <i>Scientific Adviser - prof. Yaroslav Dutchak (Lviv State University, Ukraine)</i>		
Habilitation	Lviv National University (Ukraine)	Physics of Metals	1998
	Nonideality of molten metallic alloys and their structure		

**WORK EXPERIENCE**

Rank/Position	Dates	Department	Institution/Firm
Researcher	1971-1975	Physics of Metals	Lviv National University (Ukraine)
Post graduate student	1975-1978	Physics of Metals	Lviv National University (Ukraine)
Assistant	1978-1988	Physics of Metals	Lviv National University (Ukraine)
Associate professor	1988-1998	Physics of Metals	Lviv National University (Ukraine)
Professor of Physics of Metal Department	1998 - current	Physics of Metals	Lviv National University (Ukraine)

**TEACHING:**

- Undergraduate and graduate courses

1. General Physics
2. Physics of Metals
3. Physics of Disordered Materials
4. X-ray diffraction methods
5. Physics of nanomaterials
6. Acoustic methods in material studies

7. Physics of Liquids
8. Physical - chemical properties of solids
9. Physics of Condensed Matter

- Scientific advisor for graduate and post graduate students

**RESEARCH:**

1. Structural studies of melts (liquid metals, molten alloys of different kind phase diagrams; liquid ionic systems)
2. Structure of amorphous alloys (metallic glasses)
3. Structural changes in amorphous solids (crystallization, nanocrystals growth)
4. Phase transitions in solids (structural aspects)
5. Structure and thermodynamic properties of alloys
6. New aluminum-based alloys for aircraft industry
7. Pb-free solder materials

**NUMBER of WORKS**

published in scientific journals and conference proceedings  
220

**Last RESEARCH PROJECT :**

The structure formation mechanism in eutectic-based composite systems.

*(Scientific Adviser Prof. S.Mudry Lviv National University Ukraine)*

Structure and physical-chemical properties of Co-based amorphous alloys.

*(Scientific Adviser Prof. S.Mudry Lviv National University Ukraine)*

<b><u>Address of Residence</u></b>	<b><u>Address of Employer Institution</u></b>
Kulparkivska Str. 135, Ap 47. Lviv, Ukraine, 79071 (38-0322) 65-61-59 e-mail: rus@icmp.lviv.ua	Physics of Metal Department, Ivan Franko Lviv National University, Kyrylo and Mefodij street 8, UA-79005 Lviv, Ukraine (38-0322) 964-594 e-mail: rus@icmp.lviv.ua

**LANGUAGE Proficiency**

<b><u>Language</u></b>	<b><u>Fluent</u></b>	<b><u>Good</u></b>	<b><u>Sufficient</u></b>
English		✓	
Polish		✓	
Ukrainian	✓		
Russian	✓		

**TITLES AND BIBLIOGRAPHIC REFERENCES OF THE MOST  
IMPORTANT PUBLICATIONS**

1. S. Mudryj, A. Korolyshyn. Structure of Liquid Alloys in The Fe-Ge System. //Inorganic materials.- 1996.- 32, 7.- P. 729-733.
2. V. Prokhorenko, S. Mudry, S. Prokhorenko. The structure in liquid state and forming of fractional properties of alloys //Metallurgia.- V 35, N 1.- P.17-20.
3. S. Mudry, A. Korolyshyn. X - ray study of the structure of liquid Bi-Tl // Journal of Alloys and Compounds.- 1996.- V 235.- P.120-123.
4. Mudry S., Korolyshyn A. and Klym N. The Structure of Nonstoichiometric Compounds in Liquid State. //Phys. Ghem. Liq.- 1996.- V 32.- P.115-122.
5. Mudry S. Structure of Liquid Cu-Pb Alloys // Phys. Ghem. Liq.- 1996.- V 32.- P.239-244.
6. M. Komarnytsky, S. Mudry, V. Halchak. Structure of Liquid Alloys of Transition Metals and Semimetals. //Journal of Alloys and Compounds.- 1996.- V 242.- P.157-160.
7. Prochorenko S., Mudry S. Komputerowa symulacja struktury domieszek w rzadkich metalach // Solidification of Metals and Alloys, Katowice, PAN.- 1996.- V 27.- P.135-140 (PL ISSN 0208-9386).
8. S.I. Mudryi, Structure of Liquid  $\epsilon$ -Phase in Ni-In System. //Materials Science.- 1997.- **33**, 1.- P.78-82.
9. S. Mudry. The structure of liquid  $\text{Bi}_2\text{Te}_3$  alloys near the stoichiometric region //Journal of Alloys and Compounds.- 1998.- V.269.- P.3691-3696.
10. S.I. Mudryi. Structure of  $\text{Co}_{0,05}\text{Cu}_{0,95}$  Melt. //Inorganic Materials.- 1998.- 34, 9.- P. 924-925.
11. S.Mudryi. Structure of Co-B Melts. //InorganicMaterials.- 1998.-34, 1.- P.34-35.
12. S. Mudry. Short-range order in liquid tin-rich alloys with lithium. //HighTemperatures-High Pressures.- 1999.- 31, 1.- P. 119-122.
13. S.I. Mudryi. Short -Range Order in Cu-In Melts Close in Composition to the  $\gamma$ -Phase. //Inorganic Materials.- 1999.- 35, 1.- P. 51-53.
14. Prokhorenko W., Mudry S., Prokhorenko S. Temperatural Transformation of Structyral and Physical Properties of Liquid Zn and Al New Technological Posibilities. //Solidification of Metals and Alloys.- 2000.- 2, 42.- P. 43-49.
15. B. Padljak, S. Mudry, V. Halchak, A. Korolyshyn. Structure of  $\text{CaO-Ga}_2\text{O}_3\text{-GeO}_2$  glasses: X-ray and molecular dynamics simulation studies //Optica Aplicata.- 2000.-XXX, 4.- P.691-699.
16. S. Mudry, A. Korolyshyn, Y. Kulyk, V. Halchak. Influence of magnetic field on the structure of glasses //Optica Aplicata.- 2000.-XXX, 4.- P.727-733.
17. V.Prokhorenko, A.Bylica, S.Mudry, S.Prokhorenko. Effect of magnetic field and cooling speed on crystallization processes of Sn-Bi alloys. //Acta Metalurgika Slovaca. -2001. -7.- P.412-415.
18. S.V.Prokhorenko, S.I.Mudry. Metal Melts at the Clusters and Fractals Representation. //Acta Metalurgika Slovaca. -2001. -7.- P.422-426.
19. S. Mudry, V.Halchak, A. Korolyshyn, Yu. Kulyk, T. Lutchyshyn. The Structure and Chemical Bonding in Metallic Melts //Molecular Physics Reports.- 2002.- v.36.- P.17-21.
20. B. Padlyak, S. Mudry, V.Halchak, A. Korolyshyn, Yu. Kulyk, P. Buchynskii. Peculiarities of Structure of the Cr-doped Compounds of  $\text{CaO-Ga}_2\text{O}_3\text{-GeO}_2$  System: an EPR and X-Ray Studies // Molecular Physics Reports.- 2002.- v.36.- P.79-84.
21. L.Bednarska, M.Kovbuz, V.Nosenko, S. Mudry, A. Korolyshyn. The Thermal and Magnetic Treatment of Amorphous Alloys. // Molecular Physics Reports.- 2002.- v.36.- P.117-122..
22. R.E. Gladyshevsky, Yu.V. Zorenko, Z.T. Moroz, S.I. Mudry, N.R. Krutyak, M.V. Pashkovsky, I.M. Solsky. Stability of  $\text{PbWO}_4$  crystal lattice.// Functional Materials.- 2003.- v.10 - P. 80-85.
23. Salamakha L. P., Mudryi S. I. Crystal structure of the  $\text{RZn}_{1-x}\text{Sb}_2$  compounds ( $R=\text{La, Ce}$ ) //

Journal of Alloys and Compounds.- v 359.- 2003.- 139-142.

24. V. Prokhorenko, M. Turchenko, S. Prokhorenko, S. Mudryj. Laser Melting – Pressure in Melt, Structure and Microhardness of Carried out Material //Archives of Foundry.- 3, 8.- 2003.- P. 167-170.
25. Mudry S., Kotur B., Bednarska L., Kulyk Yu., Korolyshyn A., Hertsyk O. The formation of intermetallic phases upon crystallization of amorphous  $\text{Co}_{67.2}\text{Fe}_{3.8}\text{Cr}_{3.0}\text{Si}_{14.0}\text{B}_{12.0}$  and  $\text{Co}_{66.5}\text{Fe}_{4.0}\text{Mo}_{1.5}\text{Si}_{16.0}\text{B}_{12.0}$  //Journal of Alloys and Compounds.- 2004.- 367.- P. 274-276.