

Ing. Petr Kostka, Ph.D.

*1976

Education background

1999 University of Chemistry and Technology, Prague – Chemistry and Technology of Inorganic Material (MSc.)

2007 University of Chemistry and Technology, Prague and Université de Rennes 1 – Thesis: Special Glasses for Photonics (Ph.D.)

Field of study

Inorganic chemistry, structure and properties of inorganic materials

Chemistry and technology of inorganic materials – glass and ceramics, special and optical glasses

Study stays

10-12/2000, 04-07/2001, 10/2003-05/2006 at Université de Rennes 1

Professional career

2012 – Institute of Rock Structure and Mechanics, Academy of Sciences of the Czech Republic, researcher

2006 – 2011 Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic, researcher

2003 – 2006 study stay in France – Université de Rennes 1, short term contracts

1999 – 2003 Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic, research assistant

1996 – 1998 Institute of Inorganic Chemistry, Academy of Sciences of the Czech Republic, junior research fellow

Subject of special interest

Preparation and characterization of special glasses, heavy metal oxide glasses,

Characterization of materials – thermal, optical, electrical properties,

Investigation of relationships between the structure and properties of the materials,

Purification of inorganic compounds.

Grant projects

2021 – 2022 Full-color tunable emission of lanthanide-doped monolithic glasses upon single beam irradiation for laser-based volumetric displays (TÜBITAK-21-11), CZ/TR, principal investigator

2019 – 2021 Glasses transmitting infrared radiation based on heavy metal oxides (2019-21) (19-07456S), CZ, principal investigator

2017 – 2018 Physical properties of glasses designed for application in infrared region of spectrum and memory devices (8X17038), CZ/SK/RS, principal investigator

2014 – 2015 Special glasses for optoelectronics, non-linear optics and fiber optics (7AMB14SK009), CZ/SK, principal investigator

2012 – 2014 Special glasses on the base of heavy metal oxides (GAP106/12/2384), CZ, principal investigator

2012 – 2013 Characterization of special glasses using physical methods (7AMB12SK147), CZ/SK, principal investigator

2010 – 2011 Investigation of special glass technology by physical methods (MEB0810158), CZ/SK, principal investigator

2009 – 2010 Primeverre (21360NA), F/CZ/SK/MD, Coordinator

2008 – 2010 Special glass materials for photonics applications (GA104/08/0734), CZ, principal investigator

2005 – 2007 Special glasses and fibres for infrared applications (GA104/05/0878), CZ, project management (2006-2007)

International cooperation

Faculty of Materials Science and Technology in Trnava, Slovak University of Technology in Bratislava
(Slovakia)

UMR 6226, Université de Rennes 1 (France)

University of Novi Sad (Republic of Serbia)

University of Skikda (Algeria)

Université de Biskra (Algeria)

Institute of Solid State Physics, Bulgarian Academy of Sciences (Bulgaria)

Institute of Applied Physics, Academy of Sciences of Moldova (Moldova)

Yildiz Technical University, Turkey

Univeristy of Karabük, Turkey

Pedagogical activity

Tutor of semestral projects (Master studies) and supervisor of Ph.D. students – at the UCT Prague and in cooperation with University Paris Diderot (France), University of Montpellier (France), University of Rennes 1 (France), Yildiz Technical University (Istanbul).

2019 – 2023 member of the jury for state examinations of the bachelor, master and doctoral study program at the Faculty of Materials Science and Technology in Trnava of the Slovak University of Technology in Bratislava.

Publication activity

35 articles in IF journals (36 in total), 420 citations, h-index 12 (ResearcherID: H-4851-2014)

More than 40 active participation in international conferences with more than 80 communications (orals/posters)

Reviewer for Journal of Non-Crystalline Solids, Journal of Alloys and Compounds, Optical Materials, Journal of Physics and Chemistry of Solids, Journal of Materials Science: Materials in Electronics, Journal of Luminescence.