



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **Domnina Maria RAZUS**
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E-mail drazus@icf.ro; drazus@yahoo.com
Nationality Romanian
Date of birth 28.11.1949
Gender female

Occupational field **Physical chemistry**

Work experience

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|---|--|
| Dates | 1996-present |
| Occupation or position held | Senior researcher 1 st degree, Head of Chemical Kinetics Laboratory |
| Main activities and responsibilities | Basic laboratory research; scientific and administrative management of Chemical Kinetics Laboratory |
| Name and address of employer | Ilie Murgulescu Institute of Physical Chemistry, 202 Spl.Independentei, sector 6, Bucharest, Romania |
| Type of business or sector | Academic research within the Romanian Academy |
| Dates | 1995 – 1996 |
| Occupation or position held | Senior researcher 2 nd degree |
| Main activities and responsibilities | Basic laboratory research |
| Name and address of employer | Ilie Murgulescu Institute of Physical Chemistry, 202 Spl.Independentei, sector 6, Bucharest, Romania |
| Type of business or sector | Academic research within the Romanian Academy |
| Dates | 1990 – 1995 |
| Occupation or position held | Senior researcher 3 rd degree |
| Main activities and responsibilities | Basic laboratory research |
| Name and address of employer | Ilie Murgulescu Institute of Physical Chemistry, 202 Spl.Independentei, sector 6, Bucharest, Romania |
| Type of business or sector | Academic research within the Romanian Academy |
| Dates | 1976 – 1990 |
| Occupation or position held | Researcher |
| Main activities and responsibilities | Applied research, microproduction of fine chemicals |
| Name and address of employer | Center of Physical Chemistry, 202 Spl.Independentei, sector 6, Bucharest, Romania |
| Type of business or sector | Applied research within ICECHIM, The National institute for Chemical Research |
| Dates | 1971-1976 |
| Occupation or position held | Assistant Researcher |
| Main activities and responsibilities | Basic laboratory research |
| Name and address of employer | Center of Physical Chemistry, 31 Str. Galati, sector 1, Bucharest, Romania |
| Type of business or sector | Academic research within the Romanian Ministry of Education and Research |

Education and training

Dates Dec. 1991 - Nov. 1992 (12 months); 1995-2005 (12 months)

Title of qualification awarded Post-doc fellowship awarded by Alexander von Humboldt Foundation, Germany

Principal subjects/occupational skills covered Academic research in the field of combustion and explosion of gases

Name and type of organisation providing education and training Institut für Physikalische Chemie der Universität Göttingen, Germany (Professor Heinz Gg. Wagner)(1991-1992;1995) and BAM (Bundesanstalt für Materialforschung- und prüfung)-Berlin, Germany, Prof. Dr. Norbert Pfeil (1999-2005)

Dates 1987

Title of qualification awarded PhD

Principal subjects/occupational skills covered Explosive combustion of fuel-air gaseous mixtures

Name and type of organisation providing education and training Centrul de Chimie Fizica Bucuresti

Dates 1971

Title of qualification awarded MSc

Principal subjects/occupational skills covered Physico-chemical study of stability of organo-metallic complexes

Name and type of organisation providing education and training University of Bucharest, Faculty of Chemistry, Department of Physical Chemistry

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level (*)

English

French

German

| Understanding | | | | Speaking | | | | Writing | |
|---------------|------------------|---------|------------------|--------------------|------------------|-------------------|------------------|---------|----------------|
| Listening | | Reading | | Spoken interaction | | Spoken production | | | |
| C1 | Independent user | C2 | Independent user | C1 | Independent user | C1 | Independent user | C1 | Independent us |
| C2 | Independent user | C2 | Independent user | C2 | Independent user | C2 | Independent user | C1 | Independent us |
| B2 | Independent user | B1 | Basic user | B1 | Basic user | B1 | Basic user | A2 | Basic user |

(*) Common European Framework of Reference for Languages

Social skills and competences

Good teamwork

Organisational skills and competences

Project director for research grants since 1996, financed from national or international funding organisations

Fields of competence

Director of 6 research grants, with various durations (2 or 3 years) within 2001-2016

Chemical kinetics in homogeneous and heterogeneous systems; combustion and flames of gases; flammability of gaseous mixtures and of dust suspensions in air; safety recommendations, for closed and open systems where deflagrations may occur

Main research directions

Critical conditions for explosion initiation by means of electric sparks or hot bodies (metallic wires, jets of hot, burned gas); flammability limits; flame propagation in hydrocarbon-oxygen and hydrocarbon-air mixtures, in steady and non-steady conditions; catalytic combustion of hydrocarbons; explosive decomposition of exothermic compounds

Available experimental techniques

Methods for measuring the ignition and propagation parameters characteristic for gaseous fuel-oxidant mixtures (flammability limits; minimum ignition energy for initiation with high-voltage or low-voltage electric sparks or with heated wires; peak pressure, maximum rate of pressure rise, deflagration index of closed vessel explosions; propagation speed and normal burning velocity)

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|---|---|
| Computer skills and competences | Good, for operating with Windows XP or Vista; Good, for programs under MS Office; Good, for SigmaPlot, OriginLab and Table Curve |
| Additional information | |
| Publications (total) | 153 articles, Chapters in 4 books. |
| Citations | 976 citations |
| h-index | 17 |
| Scientific communications | 160 at National and International Conferences and Symposia. |
| Managerial competence | Project director at 7 National contracts and 1 International contract, awarded by competition, between 1996-2011; Principal investigator in a National Program of the Romanian Academy (" <i>Risk factors associated to explosions in fuel-oxidant gaseous mixtures</i> ") |
| Mentor | Mentor of 2 research projects run by young scientists from Ilie Murgulescu Institute of Physical Chemistry, between 2011-2015. |
| Coordinator of international cooperation agreements | " <i>Flammability of Fuel/Inert/Oxidant Gaseous Mixtures</i> ", Cooperation with BAM (Bundesanstalt für Materialforschung und -prüfung)-Berlin, 2007-2017; " <i>Safety Characteristics of Gaseous Mixtures</i> ", Cooperation with PTB (Physikalische-Technische Bundesanstalt)- Braunschweig, Germany, 2005-2017. |
| Award | " <i>Gh. Spacu</i> " Award for Chemistry of the Romanian Academy of Sciences (1990), for publications in the field of fast gas-phase oxidation reactions issued in 1987. |
| Referee | <ul style="list-style-type: none"> for ISI-ranked Journals: Journal of Hazardous Materials; Journal of Loss Prevention in the Process Industries; Fuel; Intern. Journal of Mechanical & Materials Engineering; Process Safety Progress (Elsevier); Energy & Fuels (American Chem. Soc.); Revue Roumaine de Chimie (Editura Academiei Romane); Revista de Chimie (Bucharest). member of 8 Doctoral examination commissions at the University from Bucharest between 2004-2017. |
| Professional Associations | Romanian Chemical Society; Romanian Physical Chemistry Society; The Combustion Institute, USA; |
| ISI-Thomson Researcher ID | B-1665-2008 |

Alina