

Juncu Gheorghe Professor

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Foto

Contact information

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Education and training

Dates	1980	1994
Title of qualification awarded	Chemical engineer	Ph.D.
Principal subjects/occupational skills covered	Organic compounds technology	Technical Sciences
Name and type of organisation providing education and training	Politehnica University Bucharest	Politehnica University Bucharest
Level in national or international classification	Level A, in Romanian university ranking	Level A, in Romanian university ranking

Professional experience

Dates	09.1980-09.1982	09.1982 - present
Occupation or position held	Chemical engineer	Researcher (1982 – 1983) Assistant professor (1983-1991); Lecturer (1991-1996); Associate professor (1996-2000); Professor (2000- present)
Main activities and responsibilities	Technical Adviser	Teaching and research
Name and address of employer	ICME Bucharest	Politehnica University Bucharest
Type of business or sector	Industry	Higher education in chemical engineering

Academic and research interests

Chemical Reactors; Conjugate Heat and Mass Transfer; Computational Engineering; Bifurcations in Chemical Engineering.

Teaching activity

Se completeaza conform indicatiilor din tabel

<i>Ciclu studii (Master/licenta)</i>	<i>Denumire specializare</i>	<i>Cod disciplina din planul de invatamant</i>	<i>Titlu disciplina</i>	<i>Tip activitate (curs/proiect/laborator etc)</i>
<i>Licenta</i>	<i>CATB</i>		<i>Reactoare Chimice</i>	<i>Curs</i>
<i>Master</i>	<i>PM</i>		<i>Reactoare Chimice</i>	<i>Curs</i>
<i>Master</i>	<i>Biocombustibili</i>		<i>Curgere in Sisteme Multifazice</i>	<i>curs</i>

Publication (selective):

Books

- Gh. Juncu and C. Popa, Introduction to the Multigrid Methods (in Romanian), Technical Publishing House, Bucharest 1991.

Articles (eventual cu link-uri care lucrarile publicate on-line)

1. Gh. Juncu, R. Mihail, Multigrid solution of the diffusion-convection-reaction equations which describe the mass and/or heat transfer from a spherical particle, **Comput. Chem. Eng.** **13**, 259-270, 1989.
2. Gh. Juncu, O. Floarea, Sensitivity analysis of tubular packed-bed reactor by pseudohomogeneous 2-D model, **A.I.Ch.E. J.** **41**, 2625-2630, 1995.
3. Gh. Juncu, Conjugate unsteady heat transfer from a sphere in Stokes flow, **Chem. Eng. Sci.** **52**, 2845-2848, 1997.
4. Gh. Juncu, Conjugate heat and mass transfer from a solid sphere in the presence of a nonisothermal chemical reaction, **Ind. Eng. Chem. Res.** **37**, 1112-1121, 1998.
5. Gh. Juncu, A numerical study of steady viscous flow past a fluid sphere, **Int. J. Heat Fluid Flow** **20**, 414-421, 1999.
6. Gh. Juncu, C. Popa, Numerical experiments with preconditioning by Gram matrix approximation for non-linear elliptic equations, **Mathematics and Computers in Simulations** **52**, 53-71, 2000.
7. Gh. Juncu, Unsteady heat and/or mass transfer from a fluid sphere in creeping flow, **Int. J. Heat Mass Transfer** **44**, 2239-2246, 2001.
8. Gh. Juncu, The influence of the Henry number on the conjugate mass transfer from a sphere : I – Physical mass transfer, **Heat Mass Transfer (Wärme – und Stoffübertragung)** **37**, 519-530, 2001.
9. Gh. Juncu, Conjugate mass transfer to a spherical drop accompanied by a second order chemical reaction inside the drop, **Int. J. Heat Mass Transfer** **45**, 3817-3829, 2002.
10. Gh. Juncu, Unsteady ternary mass transfer from a sphere in creeping flow, **Int. J. Thermal Sci.** **44**, 255-266, 2005.
11. Gh. Juncu, Multiplicity analysis of a nonisothermal finite cylindrical catalyst pellet, **Int. J. Heat Mass Transfer** **50**, 2038 – 2050, 2007.
12. Gh. Juncu, A numerical study of momentum and forced convection heat transfer around two tandem circular cylinders at low Reynolds numbers. I Momentum transfer, **Int. J. Heat Mass Transfer** **50**, 3788 - 3798, 2007.
13. Gh. Juncu, A numerical study of momentum and forced convection heat transfer around two tandem circular cylinders at low Reynolds numbers. II Forced convection heat transfer, **Int. J. Heat Mass Transfer** **50**, 3799 - 3808, 2007.
14. Gh. Juncu, Unsteady mass transfer from / to a drop accompanied by a reversible second – order chemical reaction on the surface of the drop, **Int. J. Thermal Sci.** **47**, 1294 – 1305, 2008.
15. Gh. Juncu, A numerical study of the unsteady heat / mass transfer inside a circulating sphere, **Int. J. Heat Mass Transfer**, **53**, 3006 – 3012, 2010.

Research projects (eventual cu link-uri care paginile web daca exista)

- JOU2-CT92-0209; Methane combustion in a catalytic sinter-metal reactor with integrated heat exchanger
- JOU2-CT92-0108; Control of corrosion and scaling in geothermal systems.
- COPERNICUS 1177/1995-1998; Utilisation des sels fondues en metallurgie extractive, elaboration electrolytique de revetement de metaux refractaire et de leur composes.
- Swiss – Romanian Institutional Partnership Project No. 7 IP 050113 – Ecological Design of Chemical Reactors.

Other information

Nicolae TECLU award of the Romanian Academy, 1998.