CURRICULUM VITAE
FORMAT EUROPEAN

INFORMATII PERSONALE

Nume	**ION, RODICA-MARIANA**
Adresa	
Telefon	
Fax	
E-mail	
Nationalitatea	
Data nasterii	

EXPERIENTA

• **Data (de la - la)**	**2001- PREZENT**
• Nume si adresa angajator	Universitatea Valahia, Targoviste, Romania
• Tip de activitate	Activitate didactica
• Ocupatie sau pozitia detinuta	Professor Doctor, Conducator Doctorat
• Principalele activitati si responsabilitati	Nanotehnologii, nanomateriale, nanomedicina, fotochimie.
• **Data (de la - la)**	**2001-PREZENT**
• Nume si adresa angajator	ICECHIM, 202 Splaiul Independentei Bucharest-060021, Romania
• Tip de activitate	Cercetare stiintifica
• Ocupatie sau pozitia detinuta	Director Departament Analize
• Principalele activitati si responsabilitati	Coordonare activitate stiintifica
• **Data (de la - la)**	**2001-1992**
• Nume si adresa angajator	ZECASIN S.A., 202 Splaiul Independentei, 060021 Bucharest, Romania
• Tip de activitate	Cercetare stiintifica
• Ocupatie sau pozitia detinuta	Director Departament Fotochimie
• Principalele activitati si responsabilitati	Project manager
• **Data (de la - la)**	**1992-1984**
• Nume si adresa angajator	ICECHIM, IECB, 202 Splaiul Independentei, 060021 Bucharest, Romania

• Tip de activitate	Cercetare stiintifica
• Ocupatie sau pozitia detinuta	Sef laborator Fotochimie
• Principalele activitati si responsabilitati	Project manager

STUDII

• Dates (from – to)	**2008**
• Name and type of organisation providing education and training	
• Principal subjects/occupational skills covered	Management of internal and international projects
• Title of qualification awarded	Certificate
• Level in national classification (if appropriate)	
• Dates (from – to)	**2006**
• Name and type of organisation providing education and training	RENAR S.A., Bucharest, Romania, Governmental Institution.
• Principal subjects/occupational skills covered	Quality Auditor
• Title of qualification awarded	Certificate
• Level in national classification (if appropriate)	
• Data (de la - la))	**2004**
• Numele organizatiei si tipul acesteia	RENAR S.A., Bucuresti, Romania, Institutie guvernamentala.
• Principalele subiecte/ abilitati ocupationale acoperite	Solutii practice pentru calculul de incertitudini.
• Titlul calificarii acordate	Certificat
• Data (de la - la))	**2001**
• Numele organizatiei si tipul acesteia	Institutul International prin Corespondenta, Bucuresti
• Principalele subiecte/ abilitati ocupationale acoperite	Management in Cercetarea Stiintifica
• Titlul calificarii acordate	Diploma in Management Organizational
• Nivelul clasificarii nationale	Diploma post-universitara
• Data (de la - la))	**1994-1995**

• Numele organizatiei si tipul acesteia	Universitatea Politehnica Bucuresti, Facultatea de Chimie, Bucuresti, Romania
• Principalele subiecte/ abilitati ocupationale acoperite	Curs-posuniversitar “Metode analitice si caracterizarea suprafetelor si filmelor”
• Titlul calificarii acordate	Diploma
• Nivelul clasificarii nationale	Diploma post-universitara
• Data (de la - la))	**1988-1989**
• Numele organizatiei si tipul acesteia	Universitatea Politehnica Bucuresti, Facultatea de Fizica, Bucuresti, Romania
• Principalele subiecte/ abilitati ocupationale acoperite	Curs-posuniversitar “Fizica Corpului Solid”
• Titlul calificarii acordate	Diploma
• Nivelul clasificarii nationale	Diploma post-universitara
• Data (de la - la))	**1987-1988**
• Numele organizatiei si tipul acesteia	Universitatea Bucuresti, Facultatea de Chimie, Bucuresti, Romania
• Principalele subiecte/ abilitati ocupationale acoperite	Curs-posuniversitar “Fotochimie”
• Titlul calificarii acordate	Diploma
• Nivelul clasificarii nationale	Diploma post-universitara
• Data (de la - la))	**1990-1995**
• Numele organizatiei si tipul acesteia	Universitatea Bucuresti, Facultatea de Chimie, Bucuresti, Romania
• Principalele subiecte/ abilitati ocupationale acoperite	Studii doctorale
• Titlul calificarii acordate	Diploma de doctor
• Nivelul clasificarii nationale	Doctor
• Data (de la - la))	**1977-1982**
• Numele organizatiei si tipul acesteia	Institutul Politehnic, Bucuresti
• Principalele subiecte/ abilitati ocupationale acoperite	Chimie

• Titlul calificarii acordate	Master in chimie
• Nivelul clasificarii nationale	Licenta in chimie

ABILITATI.

LIMBA MATERNA	**ROMANA**
ALTE LIMBI STRAINE	
	engleza
• citit	excelent
• scris	excelent
• Vorbit	excelent
ALTE LIMBI STRAINE	
	Franceza
• citit	excelent
• scris	excelent
• Vorbit	excelent

ARTISTIC SKILLS AND COMPETENCES	writting

Music, writing, design, etc.

INFORMATII SUPLIMENTARE:

Formator de scoala de cercetare stiintifica.

1. Conducator Doctorat Domeniul Ingineria Materialelor
2. Infiintarea grupului de Nanomateriale la Universitatea Valahia, Targoviste;
3. Director Centrul de Excelenta" Centrul de Cercetari Avansate si Tehnologia biomaterialelor", 2000-2003
4. Membru fondator al Scolii Academice de Stiinta Materialelor, Universitatea Valahia, Targoviste;
5. Infiintarea singurului laborator de Fotochimie din tara, la ICECHIM, Bucuresti, www.icechim.ro
6. **2006- present-** Reprezentant official al Romaniei in Comitetul de Management al societatii Chimia in Stiintele Vietii;

Brevete de inventii: 2 acordate si 3 cereri de brevete

1. L.Teodorescu, E.Zaides, R.M.Ion, I.Nita, D.Badica, L.Olar, Instalatie pentru conversie fotochimica a energiei solare si eoliene, Brevet RO105117/1991
2. S.Coca, M.Domonie, L.Popescu, M.Teodorescu, M.Cuzmici, S.Serban, R.M.ION, Procedeu de obtinere a polimerilor si bloc-copolimerilor din cicloolefine si ciclodiolefine, RO 111773/1997
3. A.M.Ionita, RM Ion, B.Carstocea, The use of riboflavin as drug in ocular anti-tumoral and anti-neovascularisation area – Brevet RO121892/2008
4. R.M.Ion, Oprea Florea, Bacinschi Zorica, Ion Nelu, Chiriac Cornel, Procedeu de realizare a unui electrod cu strat compozit hibrid şi electrod cu strat compozit hibrid astfel obținut (nr.înregistrare A/00885-11.10.2004) ;

5. RM Ion, M.Neagu, C.Constantin, D.Boda, **UTILIZAREA PORFIRINEI TETRASULFONATE IN FABRICAREA UNUI AGENT FOTOSENSIBILIZATOR PENTRU TERAPIA DERMATOLOGICA, A00489/2008**

Lucrari elaborate si / sau publicate:

400 lucrari publicate si acceptate pentru publicare in Romania si in strainatate;
300 comunicari stiintifice la manifestari stiintifice din tara si strainatate;
8 carti

Monografii, tratate publicate in edituri internationale recunoscute

1. **D.Frackowiak, RM.Ion, K.Wiktorowicz, A.Planner, NEAR-INFRARED DYES FOR HIGH TECHNOLOGY APPLICATIONS,** ED.S.DAEHNE, U.RESCH-GENGER, O.WOLFBEIS, NATO ASI SERIES, VOL 3/52, 1998, pp. 87-114, KLUWER ACADEMIC PUBLISHERS, Dordrecht/Boston/london, ISBN 0-7923-5101-0;
2. **R.M.ION, ACTIVITY REPORT 1997-1998 COST CHEMICAL ACTIONS D1-15,** OFFICE FOR OFFICIAL PUBLICATIONS OF EUROPEAN COMMUNITY, LUXEMBOURG, PP.197-236;ISBN 92-828-7416-8, ITALY.

Carti si monografii publicate :

1. R.M.ION, Materiale Nanocristaline, Ed.FMR, Buc.**2003**
2. RM ION, Porfirinele si terapia fotodinamica a cancerului, Ed.FMR, **2003**
3. RM ION, in GENOMICA, Ed.Enciclopedica, **2003**, pp 151-180
4. R.M.Ion-Fotochimie. Principii si Aplicatii. Editura FMR, Bucuresti, **Vol.1, 2005**
   ISBN 973-8151-40-6
   ISBN Vol 1: 973-8151-41-4
5. R.M.Ion-Fotochimie. Principii si Aplicatii. Editura FMR, Bucuresti, **Vol.2, 2006**
   ISBN (10): 973-8151-40-6
   ISBN (10) Vol 2: 973-8151-42-2
   ISBN (13): 978-8151-42-0
6. R.M.Ion-Fotochimie. Principii si Aplicatii. Editura FMR, Bucuresti, **Vol.3, 2006**
   ISBN (10) 973-8151-40-6
   Vol 3-2006- Bibliogr.- ISBN (10): 973-8151-43-0
   ISBN (13): 978-973-8151-43-7
7. R.M.Ion-Fotochimie. Principii si Aplicatii. Editura FMR, Bucuresti, **Vol.4, 2007**
   ISBN 973-8151-40-6
   Vol 4-2007- Bibliogr.- ISBN: 978-973-8151-44-4

Premii si distinctii

1. Premiul II la simpozionul Mediul si Energia, 1997, Bucuresti ;
2. Pemiul pentru cea mai buna lucrare la simpozionul Oftalmologia, Sinaia, 2004 ;
3. Medalia bronz la Salonul Inventika, 2007, Bucuresti.
4. Medalia Argint, Salonul Regional de Inventica, Bacau, 2007

Premii internationale

1. Medalia Aur Salonul de inventica EUREKA, 2008, Bruxelles, Belgia, 2008
2. Premiul Special R.Demotte, Ministry President of Valonne Gouvernment, Belgium;

Alte premii

3. R.M.Ion, 2000 Outstanding intelectuals of the 20th century honour list, 2000
4. R.M.Ion, 2000 Outstanding intelectuals of the 21th century honour list, 2002
5. R.M.Ion, Marquis Who's Who in the world, 2002
6. R.M.Ion, 19th Edition of Who's Who in the world, 2002
7. R.M.Ion, International Who's Who of Professional and Business Women, 1999
8. R.M.Ion, Member of New York Academy of Sciences, 1996
9. R.M.Ion, Nomination for Woman of the year, 2003
10. R.M.Ion, Who's who in Science and Engineering, 2002
11. R.M.Ion, Who's who in 20th Century America, 2002
12. R.M.Ion, 20 th Edition of Who's who on the world, 2002
13. R.M.Ion, One-thousand Great Scholars, 2002
14. R.M.Ion, Who's who in the world, 2001
15. R.M.Ion, 21th Century Award for achievement, 2002
16. R.M.Ion, Porphyrin Expert, 2003

Membru al asociatiilor profesionale:

1. Membra a Societatii de Chimie din Romania;
2. Membra a Societatii Europene de Fotochimie, Elvetia.
3. Membra a Societatii de Energie Solara din Romania;
4. Membra a Societatii Internationale de Energie Solara-Germania;
5. Membra a Academiei Oamenilor de Stiinta-Romania;
6. Membra a Academiei de Stiinte a SUA, New York.
7. Membra a Societatii de Chimie Fizica din Romania;
8. Membra a Societatii de Cataliza din Romania;
9. Membru al Societatii Internationale de Terapie Fotodinamica a cancerului, SUA;
10. Inclusa in WHO’s WHO in Romania;
11. Membru al METRA MARTECH –European Centres of Expertise and Development in Advanced Materials;
12. Inclusa in WHO’s WHO in Fotochimie, SUA.
13. Outstanding intelectuals of the 20th century honour list, 2000

14. Outstanding intelectuals of the 21th century honour list, 2002
15. Marquis Who's Who in the world, 2002
16. Porphyrin Expert, 2003
17. 27. Nomination for Year Women in Biology, FEBS, Greece, 2008
18. 28. EPA Membership, 2008-

Specializari si calificari:

1. 1981- Specializare Fotochimie, Universitatea Bucuresti
2. 1982- Specializare Magnetism, Institutul Politehnic Bucuresti;
3. 1988- Scoala post-universitara de Fotochimie, I. P. Bucuresti;
4. 1989- Scoala post-universitara Fizica Corpului Solid,Univ. Bucuresti;
5. 1994- Curs post-universitar Metode instrumentale chim. anal.,U.P. B.;
6. 1996-1997, 2000- Specializare Polonia, Poznan, Institutul dee Fizica Moleculara;
7. 1998,1999,2001- Specializare Turcia, Technical University Istanbul, Mustafa Kemal University;
8. 1998- University of Torino, Italy;
9. 1999- Ioanina University, Grecia;
10. 2000 - Dresden University, Germania;
11. 2000 - Charles University, Cehia;
12. 2001- Medical Institute of Dublin, Irlanda; Visiting Professor;
13. 2002- Specializare “Fellowships on Risk factors Hungary”, Balatonfured,Ungaria.
14. 2003- Italy, Trieste University;
15. 2004- Germany, Dortmund University;

Profesor invitat pentru prelegeri si ateliere la universitati de prestigiu din strainatate

1. 1996: Poznan Technical University, Poland; Visiting Professor;
2. 1997: Poznan Technical University, Poland; Visiting Professor;
3. 1998: NATO stage, Technical University Istanbul, Turkey; Visiting Professor;
4. 1999: Mustafa Kemal University, Antakia-Hatay, Turkey; Visiting Professor;
5. 1999: Physical Chemistry Institute, Lisbon, Portugal; Visiting Professor;
6. 2006-RM Ion, Photodynamic therapy: sensitizers, mechanism, and clinical applications, Invited speaker at Oxford University, Queen’s College, **Oxford**;
7. 2006-RM Ion, Recent developments at the iterace between nanomaterials and medicine, NANOMEDICINE, **Barcelona**, Spain;
8. 2006-RM Ion, Terapia fotodinamica – de la cercetarea de laborator la aplicatiile clinice, ITIM Cluj Napoca;
9. 2006-R.M.Ion, Chemical and Clinical aspects of PDT, **Humboldt University**;
10. Invited speaker at **Sorbona University**, Paris, France, ianuarie 2006;
11. 2007- Invited professor at **Rouen University**, France
12. 2007-RM Ion, Photodynamic therapy: sensitizers, mechanism, and clinical applications, **Piere-Marie Curie University, Paris.**
13. Profesor invitat la Universitatea Mustafa-Kemal, Antakya-Hatay, Turcia, pentru a prezenta o lucrare de sinteza "Combined therapied for cancer therapies", Turcia, 1999
14. Profesor invitat la Universitatea din Lisabona pentru a prezenta o lucrare de sinteza in perioada 01-15 decembrie 2000 "Photophysical and photochemical

properties of porphyrins and phthalocyanines", Portugalia, 2000;

15. Profesor invitat la Universitatea Tehnica din Istanbul pentru a prezenta o lucrare de sinteza "Photophysical and photochemical properties of porphyrins and phthalocyanines",Turcia, 1998
16. Profesor invitat la Universitatea din Chisinau, pentru a prezenta o lucrare de sinteza "Fotodegradarea porfirinelor-metode teoretice si cuantice",Republica Moldova, 1994
17. Profesor invitat la Institutul de Fizica Chimie din Moscova, pentru a prezenta o lucrare de sinteza "Porfirine ca modele biomimetice in conversia fotoelectrochimica a energiei solare",URSS, 1987

Experienta acumulata in programe nationale si internationale:

Conducator de Proiecte europene

1987—1989: Bilateral Academic Cooperation Romania (Institute for Chemical Research) - URSS (Institute for Physical Chemical Science, Moscow);

1994-1997: Bilateral Cooperation Romania (ZECASIN S.A.) - Republica Moldova (Institute of Physical Chemistry of Moldavia Academy, Chisinau);

1999-2001: Bilateral intergovernmental Cooperation Romania (ZECASIN S.A) - Portualia (Institute of Physical Chemistry, Lisbon);

1999-2001: Bilateral inter-governmental Cooperation Romania (ZECASIN S.A.) - Poland (Institute of Physical Chemistry of Polish Academy, Warsaw);

1998-2001: Member of Working Group - COST D8, EU Programm;

2000-2004: Member of Working Group - COST D18 EU Programm;

2001-2006: Principal Coordinator of WG 0012-02, COST D20;

2006-2010: Proiect DEVELONUTRI FP6 (Responsabil din partea Romaniei)

Participări la proiecte internationale

1. Porfirine si metaloporfirine cu aplicatii in terapia fotodinamica a cancerului, Program European COST D20, **Cordonator Principal (Director Proiect) WG 0012-02**
2. Porfirine si metaloporfirine cu aplicatii in terapia fotodinamica a cancerului, Program European COST D20, **Membru în Comitetul de Management, 2002-2006**
3. Lantanido-porfirine pentru aplicatii biomedicale, Program European COST D18, **Membru în Comitetul de Management, 2000-2006;**
4. Investigations on the antitumoral activity of some metalloporphyrins, Program European COST D8, **Membra in Grupul de lucru WG0012, 1998-2001;**
5. Investigations on the antitumoral activity of some metalloporphyrins, Program European COST D8, **Membră în Comitetul de Mangement, 1998-2001;**
6. Proprietati fotofizice si fotochimice ale porfirinelor si ftalocianinelor adsorbite pe celuloza microcristalina, Acord Bilateral Romania-Portualia, **Partener, 1999-2001**
7. Noi structuri de porfirine, Acord Bilateral Romania-Polonia, **Partener, 1999-2001**
8. Materiale neconventionale si procedee de identificare si indepartare a agentilor degradanti pentru patrimoniul cultural european, Program Cadru V, **Expert Evaluator, 1999-2002**
9. Program European INTAS, **Expert Evaluator, 2000-prezent**
10. Acord Interguvernamental Bilateral Romania-Bulgaria, **Partener, 2002-2006**

11. Cercetari in domeniul modelarii procesului de fotosinteza si conversiei energiei solare in energie chimica, Acord Bilateral Romania-URSS, **Partener,1986-1989**
12. Cercetari in domeniul sintezei si purificarii porfirinelor cu diverse structuri si aplicatii in procese fotochimice, Acord Bilateral Romania-Republica Moldova, **Partener, 1994-1997**

RESPONSABILITATI ACADEMICE

1994: Asistent Catedra "Spectroscopie Moleculara", Facultatea Chimie, Universitatea Bucuresti;
1994-2001: ZECASIN S.A., Bucuresti, Departament Fotochimie, Membru al Consiliului Stiintific.
1994-2001: Profesor Asociat Universitatea Bucuresti;
1999-2000: Profesor Asociat Universitatea Mustafa Kemal, Antakia-Hatay, Turcia;
1999-2001: Sef laborator Fotochimie Zecasin S.A., Bucuresti;
2001- to date: Profesor Titular la Universitatea Valahia, Targoviste, Facultatea Stiinta Materialelor;
2002-to date: Indrumarea licenta si master la Universitatea Valahia, Targoviste, Facultatea Stiinta Materialelor
1998-2001: Reprezentant Oficial al Romaniei la Comitetul de Management COST D8, EU Programm, Bruxelles;
2002: Expert Evaluator FP V, Bruxelles;
1998-to date: INTAS expert evaluator, Bruxelles;
2000-to date: Reprezentant Oficial al Romaniei la Comitetul de Management COST D18, EU Programm, Bruxelles;
2001-to date: Reprezentant Oficial al Romaniei la Comitetul de Management COST D20, EU Programm, Bruxelles;
2000-to date: Coordonator Principal al Grupului de Lucru WG0012-02, COST D20.

Referent in comisii de doctorat nationale si internationale

1. Universitatea Antakia-Hatay, 2000
2. Vilnius University, Physics Faculty, Lituania, 2000
3. Grahamstown University, 2000
4. Universitatea Bucuresti, Facultatea Biologie, 2005
5. Universitatea Politehnica, Bucuresti, 2006

Expert stiintific atestat

Expert national	Expert international
National Program of Estonian Research Ministry, 2008-2009	
National Program of Bulgarian Research Ministry, Sofia Bulgaria -2007	
Expert CEEX-MEC, 2005	
Expert evaluator CNCSIS 2004,2005;	INTAS
Referent stiintific CNCSIS, 1998	FP V
Referent stiintific ANSTI, 1999	FP 6
Consultant (Expert) energetic Agentia Romana pentru	COST

conservarea energiei, 1996	
Consultant stiintific Academia Romana, 1997	

Proiecte de cercetare-dezvoltare pe bază de contract/grant

PN2- 11-035/2007-2010: Structuri de tip cavitand si coronand - noua abordare a nanotehnologiei in sfera compusilor cu potential antitumoral - NANOFUL – **Director Proiect**
PN2-41-083/2007-2010: Model experimental de terapie fotodinamica cu tetrakis-p-sulfofenil-porfirina (TSPP) asupra epitelioamelor spinocelulare - **Director Proiect din partea partenerului;**
CEEX 18/2005-2008: Metode inovative de fotochemoterapie cu noi fotosensibilizatori nanostructurati – de la sinteza la studiu clinic - **Director Proiect**
CEEX 102/2006-2008 : Biocompozite cu porfirine cu aplicabilitate in terapia fotodinamica a tumorilor maligne cutanate – PORFIDERM - **Director Proiect din partea partenerului;**
CEEX 113/2006 : Inactivarea fotodinamica o unor bacterii Gram-pozitive si Gram-negative care contamineaza plagile deschise utilizand radiatii luminoase coerent - **Director Proiect din partea partenerului;**
MATNANTECH 16/2001-2004- Tehnologii neconvenționale de obținere a materialelor inteligente cu aplicații speciale, **Director Proiect din partea partenerului;**
MATNANTECH (402)196/2004 - Prepararea si caracterizarea materialelor compozite inteligente, **Director Proiect**
VIASAN 228-01/2003 – Aplicații ale fotosensibilizatorilor porfirinici în tratamentul fotodinamic al tumorilor, **Director Proiect din partea partenerului;**
CERES 419/2004- Studiul fotosensibilizarii induse de radiația laser, Director Proiect
VIASAN 123 VIASAN –2001-2003- Cercetari asupra utilizarii porfirinelor sintetice in terapia fotodinamica a tumorilor cerebrale, **Director Proiect din partea partenerului.**
Centrul de Excelenta" Centrul de Cercetari Avansate si Tehnologia biomaterialelor", 2000, **Director de Proiect;**
Proiect VIASAN 081 - Coloranti cu activitate antitumorala,2001-2003, **Executant;**
Proiect CERES 192 - Cercetari privind obtinerea unor compusi calixarenici si utilizarea lor la separari catalitice ale metalelor din rezidiile nucleare, 2001-2003, **Executant.**
Grant Academie - Materiale compozite complexe (Al2O3, Cr, Mo, substante organice) cu aplicatii in industriile de varf (microelectronica, aeronautica), 2003, **Executant;**
Grant Academie - Fotochimia colorantilor, 1997 **Executant;**
Grant Academie - Studii spectrale si magnetochimice ale unor complecsi moleculari cu activitate fiziologica, 1997 **Executant;**
Grant Academie - Studiul fizico-chimic in domeniul magnetismului molecular, 1998 **Executant;**

Alte proiecte (Orizont, Nucleu)

1. Conversia fotochimica a energiei solare. Aplicatii in chimie si biochimie
2. Fotosensibilizatori porfirinici cu aplicatii in fotomedicina
3. Recuperarea vanilinei prin procese fotochimice din deseuri de lignina
4. Aplicatii ale unor compusi porfirinici in procese catalitice si fotocatalitice
5. Procedee de obtinere a unor produsi odoranti (alcooli C10) prin fotooxidarea dimerilor de izoamilene
6. Stocarea energiei solare prin sisteme chimice reversibile
7. Studiul unor noi structuri de porfirine si ftalocianine cu aplicatii in tehnica
8. Porfirine si metaloporfirine pentru terapia fotodinamica a cancerului
9. Proprietati fotofizice si fotochimice ale porfirinelor si ftalocianinelor adsorbite pe celuloza microcristalina
10. Fotodegradarea membranelor celulare in prezenta fotosensbilizatorilor porfirinici nesimetric substituiti

11. Recuperarea azbestului in vederea indepartarii lui ca poluant industrial
12. Cercetari privind recuperarea si valorificarea produsilor rezultati prin fotodegradarea poluantilor clor-fenolici din apele reziduale in vederea purificarii lor
13. Fotodegradarea membranelor celulare in prezenta fotosensibilizatorilor porfirinici nesimetric substituiti
14. Studiul spectral si electrochimic al transferului electronic din porfirine si metaloporfirine adsorbite. Aplicatii in biocataliza
15. Studiul unor materiale cu aplicatii in energetica neconventionala (concentratoare solare fluorescente, dispozitive voltaice si optice)
16. Procedee chimice si fotochimice de sinteza a unor compusi de interes biologic si farmaceutic
17. Sinteza enzimatica a epoxistirenului
18. Sinteza acidului tartric prin cataliza enzimatica
19. Oxidarea enzimatica a n-parafinelor
20. Obtinerea hidrogenului prin descompunerea termocatalitica a apei pe ferite
21. Extracte vegetale cu proprietati bactericide si fungicide din deseuri vegetale
22. Obtinerea de extracte vegetale cu proprietati insecticide din deseuri vegetale
23. Cercetari asupra proprietatilor spectrale a unor derivati porfirinici si interactia lor cu diferiti compusi biologic activi

Contracte directe nationale de cercetare stiintifica

1. Utilizarea energiilor neconventionale pentru prelucrarea fotochimica a hidrocarburilor, ICPE, Agigea, 1987
2. Cercetari in vederea obtinerii unor produse utilizabile la fabricarea odorantilor folosind energii neconventionale, ICPE, Agigea, 1988
3. Cercetarea, furnizarea si caracterizarea chimico-fizica a unor materiale stocatoare de energie solara, ICPE, Agigea , 1991
4. Purificarea fotochimica a polietilenglicolilor de uz farmaceutic, ICECHIM, Brazi, 1992
5. Analiza IR de sistem a unor probe de amidon/amilaza polistiren, Fulgerul-Bragadiru, 1994
6. Tehnologie pentru obtinerea tetralonei si tetralolului din □-tetralina, 1984-1987
7. Obtinerea izoprenului prin fotooxidare si oxidare din izopentan, 1984-1987
8. Valorificarea superioara a etiltoluenului din fractiile grele de benzina de la reformarea catalitica pentru obtinerea viniltoluenului, 1997
9. Tehnologie pentru obtinerea tetralonei si tetralolului din a-tetralina, 1984-1987
10. Obtinerea izoprenului prin fotooxidare si oxidare din izopentan, 1984-1987
11. Chemiluminescenta pentru decelarea produsilor de degradare ai porfirinelor utilizati ca produsi biologici activi, 1993
12. Analiza spectrala a PEG 400 si PEG 600 cu utilizare farmaceutica, 1994
13. Analiza prin metode spectrofotometrice UV,VIZ,IR, a unor probe PEG 200 si PEG 400 de uz farmaceutic,1991
14. Elaborarea metodelor analitice spectrale de detrminare calitativa si cantitativa a cetonelor si hidroperoxizilor din polietilen glicoli de utilizare farmaceutica,1993
15. Elaborarea metodelor de analiza a diglicolaminelor si morfolinei,1994
16. Analiza prin chemiluminescenta a produsilor de degradare a compusilor biologici activi, 1993
17. Studiul spectral al purificarii avansate a compusilor obtinuti din etoxilare si propoxilare, 1994
18. Analiza imidazolinelor pentru agenti anticorozivi, 1994-1998
19. Studiul unor noi structuri de porfirine si ftalocianine,1992
20. Studiul complexarii donor-acceptor la diferiti acceptori si unii derivati porfirinici,1991
21. Metode fizico-chimice de determinare a interactiei porfirinelor cu biomolecule, 1991
22. Actiunea fotodinamica a radiatiei luminoase la nivelul sistemelor biologice utilizand fotosensbilizatori porfirinici, 1992
23. Studiul interactiilor moleculare intre derivati porfirinici si o serie de aminoacizi, 1992
24. Studiul prin dicroism circular si in IR al unor derivati porfirinici optic activi, 1993
25. Conversia fotochimica a energiei solare Aplicatii in chimie si biochimie, 1986-1995
26. Fotosensibilizatori porfirinici cu aplicatii in fotomedicina, 1992-1995

27. Recuperarea vanilinei prin procese fotochimice din deseuri de lignina, 1993-1994
28. Aplicatii ale unor compusi porfirinici in procese catalitice si fotocatalitice, 1996-2000
29. Procedee de obtinere a unor produsi odoranti (alcooli C10) prin fotooxidarea dimerilor de izoamilene, 1996-1998
30. Stocarea energiei solare prin sisteme chimice reversibile, 1990-1995
31. Studiul unor noi structuri de porfirine si ftalocianine cu aplicatii in tehnica, 1990-1994
32. Porfirine si metaloporfirine pentru terapia fotodinamica a cancerului, 1995-2000
33. Proprietati fotofizice si fotochimice ale porfirinelor si ftalocianinelor adsorbite pe celuloza microcristalina, 1998-2001
34. Fotodegradarea membranelor celulare in prezenta fotosensbilizatorilor porfirinici nesimetric substituiti, 1999-2000
35. Recuperarea azbestului in vederea indepartarii lui ca poluant industrial, 1994-1997
36. Cercetari privind recuperarea si valorificarea produsilor rezultati prin fotodegradarea poluantilor clor-fenolici din apele reziduale in vederea purificarii lor, 1994-1997
37. Fotodegradarea membranelor celulare in prezenta fotosensibilizatorilor porfirinici nesimetric substituiti, 1999
38. Studiul spectral si electrochimic al transferului electronic din porfirine si metaloporfirine adsorbite. Aplicatii in biocataliza, 1996-1997
39. Studiul unor materiale cu aplicatii in energetica neconventionala (concentratoare solare fluoreescente, dispozitive voltaice si optice), 1998,1999
40. Procedee chimice si fotochimice de sinteza a unor compusi de interes biologic si farmaceutic, 1996-1998
41. Sinteza enzimatica a epoxistirenului, 1995
42. Sinteza acidului tartric prin cataliza enzimatica, 1996
43. Oxidarea enzimatica a n-parafinelor, 1997
44. Obtinerea hidrogenului prin descompunerea termocatalitica a apei pe ferite, 1997
45. Extracte vegetale cu proprietati bactericide si fungicide din deseuri vegetale, 1998
46. Obtinerea de extracte vegetale cu proprietati insecticide din deseuri vegetale, 1998
47. Cercetari asupra proprietatilor spectrale a unor derivati porfirinici si interactia lor cu diferiti compusi biologic activi, 1998

Organizator (chairman/co-chairman) de manifestari stiintifice internationale / membru in comitetele de program

1. R.M.Ion, International Organic Chemistry Meeting, Antakya-Hatay, Turcia, 2002
2. R.M.Ion, Organizator Workshop COST D20, Bucharest, 2002
3. R.M.Ion, Chairperson of COST D8, Dublin, 2001
4. R.M.Ion, Organizator conferinta Prof. LF Vieira-Ferreira la Bucuresti, 2000
5. R.M.Ion, Organizator conferinta Prof.K.Gunaydin la Bucuresti, 2003

Granturi de cercetare / proiecte castigate prin competitie internationala

1. **FP6 - DEVELONUTRI**, 2006-2010; UE DEVELOPMENT OF HIGH THROUGHPUT. APPROACHES TO OPTIMISE THE NUTRITIONAL. VALUE OF CROPS AND CROP BASED FOODS Contract n°:036296 FP6-2005-FO OD-4-B; Type: Specific Targeted Research Project
2. Internal project number **D8/0012/97, COST D8**, Platinum linked nucleotides analogues as viruses inhibitors
3. Program PHARE, 1994
4. Internal project number D18/0032/99, **COST D18**: **Structure, Stability and Factors Affecting the Efficiency of Lanthanides Chelates Relevant to Magnetic Resonance Imaging (MRI)"**

5. Coordonator principal al proiectului 0012/02, **COST D20 -** Metal Compounds in the Treatment of Cancer and Viral Diseases
6. **Program PHARE RO 2002 IB/EN/01**- Twinning in domeniul substantelor chimice pentru imbunatatirea cadrului legislativ si al aplicarii acesteia".

International references

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Prof. Ion, Rodica-Mariana (Romania)

Rodica-Mariana Ion obtained the Ph.D. at Bucharest University and obtained many post-doctoral fellowships and invited professor positions in Europe laboratories and universities. She is Head of Photochemistry Group from ICECHIM, Bucharest, and Full Professor of Advanced Materials at Valahia University, Targoviste. She works on the spectroscopy, **photobiology, and photochemistry** of porphyrins and phthalocyanines (for 20 years ago) with emphasis on rational design of new drugs for photodynamic therapy, and the development of porphyrin-based **nanocrystalline materials.** The main spectroscopic techniques used in his lab are flash UV-Vis, IR spectroscopy, and lasers for samples irradiation, and practical procedures for porphyrins **applications in animal and human tumors, in vitro.**

She is the author of over 350 research articles and two books – **Porphyrins and photodynamic therapy of cancer, FMR Ed., Bucharest 2003, ISBN 973-8151-13-9**, and **Nanocrystalline materials, FMR Ed., Bucharest, 2003, ISBN 973-8151-12-0** and contribution in **Near-infrared dyes for high technology applications, Ed.S.Daehne, U.Resch-Genger, O.Wolfbeis, NATO ASI series, vol 3/52, 1998, pp. 87-114, Kluwer Academic Publishers, Dordrecht/Boston/London, ISBN 0-7923-5101-0.** She is the in Management Committees of EU Actions: COST D8, D18 and D20, and also Principal Coordinator at WG 0012/02 of COST D20. Experts of INTAS, FPV, FP 6 Programmes.

(update 2003/11/03)

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2. Rodica-Mariana Ion, R. C. Fierascu, and Irina Dumitriu, Photonic metallic nanostructures in photodynamic therapy, *Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies IV, Proceedings of the SPIE, Volume 7297, pp. 72970H-729723 (2009).*

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