

Curriculum vitae Europass



Informații personale

Nume / Prenume	Văireanu, Dănuț-Ionel		
Adresă(e)	București, România		
Telefon(oane)	Birou: 0214023939	laborator: 0214023962	
Fax(uri)	-		
E-mail(uri)	di_vaireanu[at]chim.upb.ro		
Naționalitate(-tăți)	Română		
Anul nașterii	1963		
Sex	Masculin		

Experiența profesională

Perioada	23 Aprilie 1990 - prezent
Funcția sau postul ocupat	Profesor universitar (oct. 2004-prezent), Conferențiar (oct. 2001 – sept 2004), S.L. (oct. 1996 – sept 2001), Asistent (apr. 1990 – sept 1996). Cursuri, laboratoare, seminarii, proiecte, tutoriale în limba română și în limba engleză la FCASM și la Faculty of Engineering in Foreign Languages. Conducător de doctorat din 2010, 8 doctoranzi în stagiul și 1 doctorand în cotutela. Administrativ: Prodecan 2004-2005.
Activități și responsabilități principale	Învățământ și cercetare; ca Prodecan responsabil cu cercetarea și problemele studențești
Numele și adresa angajatorului	Universitatea Politehnica din București, Str. Splaiul independenței 313, București, sector 6
Tipul activității sau sectorul de activitate	Învățământ superior și cercetare
Perioada	5 septembrie 1988 – 22 februarie 1990
Funcția sau postul ocupat	Stagiatura obligatorie în producție
Activități și responsabilități principale	Inginer tehnolog și cercetător în programul de elaborare a catalizatorului de depoluare tricomponent Șef secție Agenți de lucru. Sinteze organice fine pentru industria farmaceutică și pentru aditivi folosiți în băile de galvanizare
Numele și adresa angajatorului	1. Dacia Groupe Renault - Automobile Dacia, Str. Uzinei nr 1, Mioveni, jud. Argeș, Romania 2. S.C. Sintofarm S.A., Strada Ziduri Între Vii, Bucuresti Sectorul 2, Romania
Tipul activității sau sectorul de activitate	Industria construcțiilor de mașini și industria chimică

Educație și formare

Perioada	Sept. 1997 - August 1998
Calificarea / diploma obținută	Stagiu Postdoctoral NATO/Royal Society
Disciplinele principale studiate / competențe profesionale dobândite	- Metode electrochimice de detecție în câmpuri de înalta tensiune, Instrumentație neconvențională. - Lab on a Chip. Stagiu postdoctoral de cercetare finalizat cu succes și raportul de cercetare depus la termenul stabilit.
Numele și tipul instituției de învățământ / furnizorului de formare	University of Manchester Institute of Science And Technology , Dept. of Instrumentation and Analytical Sciences, Anglia;
Nivelul în clasificarea națională sau internațională	GB 5A (maxim posibil)

<p>Perioada</p> <p>Calificarea / diploma obținută</p> <p>Disciplinele principale studiate / competențe profesionale dobândite</p> <p>Numele și tipul instituției de învățământ / furnizorului de formare</p> <p>Nivelul în clasificarea națională sau internațională</p> <p>Perioada</p> <p>Calificarea / diploma obținută</p> <p>Disciplinele principale studiate / competențe profesionale dobândite</p> <p>Numele și tipul instituției de învățământ / furnizorului de formare</p> <p>Nivelul în clasificarea națională sau internațională</p> <p>Perioada</p> <p>Calificarea / diploma obținută</p> <p>Disciplinele principale studiate / competențe profesionale dobândite</p> <p>Numele și tipul instituției de învățământ / furnizorului de formare</p> <p>Nivelul de clasificarea</p> <p>Limba(i) străină(e) cunoscută(e)</p> <p>Autoevaluare</p> <p>Nivel european (*)</p>	<p>Sept. 1992 - Sept. 1995;</p> <p>Doctor in Instrumentație și științe analitice (PhD in Instrumentation and Analytical Sciences). Titlul de PhD echivalat cu Doctor in Chimie - specializarea Electrochimie - atestat echivalare M.I. seria B, nr. 0000080- serie Secretariatul de stat nr. 56 din 27.02.1997 – acordat de Ministerul Învățământului, Bucuresti, Romania, in 1997.</p> <p>Examenul de doctorat susținut in ședința publica din 25.08.1995 si trecut cu calificativul maxim (passed grade A, no corrections);</p> <p>Șef comisie examinare: Prof.Dr.A. Townsend, (Hull University), Editor Șef Analytica Chimica Acta.</p> <p>- Instrumentație și Științe Analitice, Electrochimie, Electroanalitică, Analiză prin injectare în flux</p> <p>University of Manchester Institute of Science And Technology, Dept of Instrumentation and Analytical Sciences, Anglia.</p> <p>GB 5A (maxim posibil)</p> <p>Sept. 1991 - Sept. 1992</p> <p>Master of Science in Environmental and Pollution Control acordat de University of Manchester, Anglia in 1993; Masterat echivalat cu Studii aprofundate in domeniul Chimiei, specializarea Controlul Poluării și Protecția Mediului Înconjurător, atestat echivalare M.I., seria B, nr. 0000079 - serie Secretariatul de stat nr. 55 din 27.02.1997 – acordat de Ministerul Învățământului, București, Romania, in 1997. Nota la examenul de dizertație în Anglia: Passed, Grade A (calificativul maxim);</p> <p>- Protecția mediului și controlul poluării. (4 pachete modulare, 16 discipline din domeniul protecției mediului, ecologiei, legislația de mediu, economie – terminate cu examene scris si oral) urmate de 6 luni de cercetare intensa in laborator, finalizata cu dizertație. Dizertație cu evaluare interna si externa, conform standardelor britanice. Procent de absolvire 23 absolvenți din 52 inscriși!</p> <p>University of Manchester School of Biological Science, Manchester, Anglia</p> <p>GB 5A (maxim posibil)</p> <p>Sept 1983 - iul. 1988</p> <p>Diplomat inginer. Medie generala (excluzând examenul de diploma): 9,96 (șef de promoție pe tara); Examenul de diploma: 10</p> <p>Peste 44 de discipline din domeniul științelor exacte, ingineriei, social și de management</p> <p>Institutul Politehnic Bucuresti, Facultatea de Tehnologie Chimica, Secția: Tehnologie Chimica Anorganica</p> <p>Top 5 Universități din țară</p>
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		Înțelegere		Vorbire				Scriere		
		Ascultare	Citire	Participare la conversație		Discurs oral		Exprimare scrisă		
Engleză	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat	C2	Utilizator experimentat
Franceză	C2	Utilizator experimentat	C2	Utilizator experimentat	B1	Utilizator independent	A2	Utilizator elementar	A2	Utilizator elementar
Germană	C1	Utilizator experimentat	C1	Utilizator experimentat	B1	Utilizator independent	B1	Utilizator independent	A2	Utilizator elementar
Italiană	B1	Utilizator independent	B2	Utilizator independent	A2	Utilizator elementar	A2	Utilizator elementar	A1	Utilizator elementar

- Cambridge Certificate IELTS nr. 012/01.02.1991
- Traducator - interpret autorizat și certificat de Ministerul Justiției (1996-2001) (i.d.#491/1996, reconfirmat i.d.#278112.12.2000).

Examenul de certificare susținut și trecut la centrul de perfecționare al Ministerului culturii, Comisia centrală pentru acordarea certificatului de traducător.

- Traducător certificat pentru engleză, domeniul Juridic - Certificat nr.531/2000
- Traducător certificat pentru germană, domeniul Tehnic –Chimie - Certificat nr. 215/2000.
- Traducător certificat pentru franceză, domeniul Tehnic –Chimie - Certificat nr. 198/2000

Competențe și abilități sociale	<ul style="list-style-type: none"> - Experiență de peste 16 ani în poziții de management universitar individuale și colective (Prodecan, Consiliul Facultății, Membru deplin în Consiliul Facultății/Profesoral din 2000, Catedră, Departament); - Spirit de echipă – în majoritatea pozițiilor avute m-am integrat fără dificultate în cele mai variate echipe și medii (interne sau externe); participat la numeroase proiecte complexe de cercetare cu parteneri multipli (CEEX, PN2, Inovare, Posdrul etc.). - Negociere și mediere, necesare pentru evitarea sau aplanarea unor fricțiuni apărute în echipe de lucru eterogene
Competențe și aptitudini organizatorice	<ul style="list-style-type: none"> - Director/Responsabil Proiect pentru un număr de peste 19 proiecte ce necesită aptitudini de proiect manager. - Proiecte complexe de cooperare cu terți (mediul industrial, mediul social, training-uri etc.). - Supravegherea și relațiile de legătură pe parcursul a peste 3 ani de consolidarea a clădirii F prin proiect cu Banca Mondială (laboratoarele de electrochimie, coroziune, procese electrochimice); - Scrierea CS pentru logistică necesară bunei funcționări a laboratoarelor; - Evidența computerizată, BD.
Competențe și aptitudini tehnice	<ul style="list-style-type: none"> - Menținerea laboratoarelor (intretinere/depanare/reconditionare); - Construirea de sisteme și interfețe de achiziție digitală asistată de calculator a datelor furnizate de sistemele electrochimice de analiză; - Construirea de convertoare curent-tensiune bazate pe amplificatoare operaționale 741N, convertoare capabile să măsoare curenți de ordinul picoamperilor; - Construirea unui sistem computerizat de evaluare a coroziunii de contact în aliajele de uz stomatologic; - Construirea unui microreactor electrochimic de sinteză a hipocloritului de sodiu; - Construirea unui dispozitiv opto-electronic de testare a gradului de luciu la depunerile catodice; - Construirea unui disp. de testare accelerată la desprinderea catodică a acoperirilor anticorozive.
Competențe și aptitudini de utilizare a calculatorului	<ul style="list-style-type: none"> - Stăpânire fără probleme a pachetelor MsOffice, ACD Systems, Zview, Intel QX3, Coatings 4.1, ElectroCells, Virtual CycVoltam, ChemWin, Electronic WorkBench, Adobe, MathCad, SolvEq etc. - Creator de programe pentru studenți pentru predarea interactivă: VisualGalvanic. - Internet și poșta electronică (pachete Outlook, Pegasus Mail, WebMail etc.) - Experiență în depanare și configurare rețele de calculator; - Experiență în depanare hardware și configurare calculatoare în sistemele Windows și Linux
Competențe și aptitudini artistice	Proiectare asistată de Calculator (ECAD), Ikebana.
Alte competențe și aptitudini	Hobby: Go, tenis de masă, literatură
Permis(e) de conducere	Categorii B de peste 35 ani.
Activitate didactică	Cursuri, laboratoare, seminarii, tutoriale proiecte predate la materiile: Electrochimie, Electrochimie aplicată, Coroziune și Protecție anticorozivă, Tehnologie electrochimică, Reactoare Electrochimice, Baterii și Acumulatori, Pile de combustie, Electrochemical Conversion and Storage of Electricity using Electrochemical Devices, Electrozi și microelectrozi, Spectroscopie de impedanță electrochimică, Procese electrochimice aplicate în protecția mediului, Metode și tehnici electrochimice de depoluare, Știința materialelor, Biomateriale etc.
Domenii de cercetare abordate	Electrochimie, Coroziune, Metode de evaluare a coroziunii, Electroliza, Sinteze electrochimice, Baterii și Acumulatori, Pile de combustie de tip PEM și SOFC, Vehicule electrice, Microelectrozi, Spectroscopie de impedanță electrochimică, Procese electrochimice aplicate în protecția mediului, Metode și tehnici electrochimice de depoluare, Știința materialelor, Coroziunea Biomaterialelor, Coroziunea indusă microbiologic (MIC), sisteme fotovoltaice etc.
Publicații	<ul style="list-style-type: none"> - 15 manuale universitare, îndrumare de laborator, cărți, monografii ca autor unic sau coautor; - 5 invenții (4 acordată și 1 sub evaluare); - peste 100 articole publicate în reviste cotate ISI sau indexate în baze de date internaționale; - peste 100 de articole publicate în volumele recenzate ale unor conferințe internaționale; - 19 contracte naționale sau internaționale (unele cu bugete multianuale ca director / responsabil / coordonator / Manager și alte 28 ca membru în echipa de cercetare
Informații suplimentare	Referințele pot fi furnizate la cerere

LIST OF SELECTED PUBLICATIONS

BOOKS

1. **Danut-Ionel Vaireanu**, Anca Cojocaru, Ioana Maior, Ioana-Alina Ciobotaru, *Food packaging interactions in metal cans*, in *Reference Module in Food Science*, Elsevier, 2018, ISBN 9780081005965
<https://doi.org/10.1016/B978-0-08-100596-5.22398-6>
<http://www.sciencedirect.com/science/article/pii/B9780081005965223986>
2. Anca Cojocaru, Ioana Maior, Simona Căprărescu, Ioana-Alina Ciobotaru, **Dănuț-Ionel Văireanu**, *Electrochimia aplicată în ingineria economică (Electrochemistry applied in Economic Engineering)*, Ed. Electra, 2015, ISBN: 978-606-507-081-3 (280 pagini)
3. **D.I. Vaireanu**, *Handbook of Experimental Electrochemistry (in English language)*, Ed. Printech, Bucharest, 2008, ISBN 978-606-521-214-5, (268 pages)
4. **D.I. Vaireanu**, *Electrochemistry and Corrosion (in English language)*, Ed. AGIR, Bucharest, 2006, ISBN 973-720-114-0 / 978-973-720-114-0 (182 pages)
5. T. Badea, M. Nicola, **D.I. Vaireanu**, I. Maior, A. Cojocaru, "Electrochimie și Coroziune" (**Electrochemistry and Corrosion - 400 pages**), Ed. MatrixRom, București, 2005, ISBN 973-685-913-4 (400 pages)
6. **T. Visan (co-ordinator)**, T. Badea, I. Demetrescu, G.L. Radu, M.V. Popa, **D.I. Vaireanu**, E. Roman, L. Anicai, N. Ibric, S.Licescu, M. Diaconu, D. Ionita, M. Demetrescu, "Electrochimie și Coroziune pentru doctoranzii ELCOR" (**Electrochemistry and Corrosion for ELCOR PhD students**), Ed. Printech, Bucuresti, 2004, ISBN 973-718-075-5
7. D.Constantinescu, **D.I. Văireanu**, *Tehnologia proceselor electrochimice, (Technology of Electrochemical Processes)*, Ed. Printech, Buc.,Romania, 2000, ISBN 973-652-182-6 (287 pages)
8. **D.I. Vaireanu**, A. Cojocaru, D. Constantinescu, T. Badea, M. Nicola, I. Maior "Electrochimie, Coroziune si Tehnologia Proceselor Electrochimice" (**Electrochemistry, Corrosion and technology of electrochemical processes, laboratory practical note book**) Ed. University Politehnica of Bucharest, 2nd Edition, Bucuresti, 2002, (294 pages),
9. **D.I. Văireanu**, *Depoluarea electrochimică a apelor reziduale, (Electrochemical depollution of waste water - 118 pages)* Ed. Printech, Bucuresti, 2000, ISBN 973-652-211-3,
10. **D.I. Vaireanu**, A. Cojocaru, I. Maior, D. Constantinescu, "Aplicații practice de electrochimie și știința materialelor, (**Practical applications of electrochemistry and material science**) Ed. Printech, Bucuresti, 2000, ISBN 973-652-064 (140 pages)
11. D. Constantinescu, **D.I. Vaireanu**, I. Maior, *Știința Materialelor (Material Science)*, "Ed. Matrix Rom, București, 2004, ISBN 973-685-726-3, (282 pages)
12. **D.I. Vaireanu**, M. Colesa, Aplicații practice de electrochimia mediului, (**Practical Applications of environmental electrochemistry laboratory practical note book -100 pages** - Ed. Cartea Universitară, Bucharest, 2003, ISBN 973-86042-9-X (100 pages)
13. **D.I. Vaireanu**, "Extracția electrolitică a zincului" (**Electrowinning of zinc**), Ed. University Politehnica of Bucharest, 2002 - **project practical note book (106 pages)**
14. **D.I. Vaireanu**, A. Cojocaru, I. Maior, D. Constantinescu, "Materiale Metalice și Electrochimie" (**Metallic materials and electrochemistry , laboratory practical note book**), Ed. University Politehnica of Bucharest, Bucuresti, 2000, (120 pages)
15. **D.I. Vaireanu**, A. Cojocaru, D. Constantinescu, T. Badea, M. Nicola, "Electrochimie, Coroziune si Tehnologia Proceselor Electrochimice" (**Electrochemistry, Corrosion and technology of electrochemical processes, laboratory practical note book**),Ed. Andor Tipo srl, Bucuresti, 1999, (302 pages)
16. D. Constantinescu, **D.I. Vaireanu**, T. Ștefan, *Tehnologia Proceselor Electrochimice,(Technology of Electrochemical Processes, laboratory practical note book)* Ed. University Politehnica of Bucharest, București, 1991, (74 pages)

INVENTIONS/PATENTS

- 1 Patent no. **RO 116129 B / 28.09.2000**
Author: **Vaireanu Danut Ionel**
Holder: **Vaireanu Danut Ionel**
Published in: **BOPI (Romania) no. 10/2000**
Application field: **Electrochemistry and Analytical Science/Environmental Protection**
- 2 Patent no. **RO 116130 B / 28.09.2000**
Author: **Vaireanu Danut Ionel**
Holder: **Vaireanu Danut Ionel**
Published in: **BOPI (Romania) no. 10/2000**
Application field: **Electrochemistry and Analytical Science/Environmental Protection**
- 3 Patent no. **RO 116304 B / 28.09.2000**
Author: **Vaireanu Danut Ionel**
Holder: **Vaireanu Danut Ionel**
Published in: **BOPI (Romania) no. 12/2000**

P4 Patent no. **RO 126439 B1** /29.03.2013
Author: **Vaireanu Danut Ionel**, Corina Rradulescu, Mihai Victor Mircea Macavescu, Elisabeta Pasculete, Ioana Predescu
Holder: **OVM Research Institute**
Application field: **corrosion and corrosion protection**
Published in: **BOPI (Romania) no. 3/2013**

SELECTION OF PAPERS PUBLISHED IN REFERRED INDEXED JOURNALS (ISI OR IDB)

- 1 Peter R. Fielden, Thomas McCreedy, Nigel Ruck and **Danut-Ionel Vaireanu**, *Amperometric Arrays in Flowing Solution Analysis*, Analyst, May 1994, vol. 119, p.953-958, ISSN: 0003-2654 (ISI)
- 2 **Danut-Ionel Vaireanu**, Nigel Ruck and Peter R. Fielden, *Predictive model for coulometric operation in a thin-layer amperometric flow cell*, Analytica Chimica Acta, vol. 306, April 28, 1995, p.115-122, ISSN: 0003-2670 (ISI)
- 3 **Danut-Ionel Vaireanu**, Peter R. Fielden, Richard D. Snook, *Isodispersion curves in flow injection analysis*, Analytical Communication (of London) vol. 12, 1999, p.403-406, ISSN: 1359-7337 (ISI)
- 4 **Danut-Ionel Vaireanu**, Peter R. Fielden, Richard D. Snook, *Similarity and scaling in flow injection analysis*, Analytical Communication (of London), vol. 12, 1999, p.407-410, ISSN: 1359-7337 (ISI)
- 5 **Danut-Ionel Vaireanu**, *A computer controlled injection system for environmental analysis*, Science and Technology of Environmental Protection, vol.7,no.1,2000,p.20-28, ISSN 1221- 6909.
- 6 **Danut-Ionel Vaireanu**, Peter R. Fielden, Bernard J. Treves Brown, *A capacitively Coupled Conductivity Detector for Electroseparations*, Measurement Science and Technology vol. 11, no. 3, March 2000, p.244-251, ISSN: 0957-0233 (ISI)
- 7 **Danut-Ionel Vaireanu**, *Evaluarea dispersiei în celule electrochimice modulare de volum variabil utilizate în sisteme de analiză prin injectare în flux, (Dispersion assessment in modular electrochemical cells of variable volume used in connection with a flow injection analysis system)* Rev. Chimie, vol. 51, no. 10, 2000, p.758-762, ISSN 0034 - 7752 (ISI)
- 8 **Danut-Ionel Vaireanu**, *Electrochemical platinum coating of a disposable multielectrode array*, Metalurgia International, vol. V, no 4, 2000, p.37-41 ISSN 1582-2214.
- 9 **Danut-Ionel Vaireanu**, *Model de simulare numerică a peak-urilor în sisteme de analiză prin injecție în flux, (Simulation model of flow injection analysis peaks)* Rev. Chimie, vol. 51, no. 11, 2000, p.885-888, ISSN 0034 – 7752 (ISI).
- 10 **Danut-Ionel Vaireanu** and Adriana Simion, *A novel silver/silver Chloride - saturated gel reference electrode for electrochemical measurements used in connection with pollution monitoring systems*, Science and Technology of Environmental Protection,vol.7,no.2,2000, p.31-36, ISSN 1221- 6909.
- 11 **Danut-Ionel Vaireanu**, *Achiziția digitală a semnalelor furnizate de celulele electrochimice prin intermediul instrumentelor virtuale, (Digital acquisition by virtual instruments of flow injection response signals)* Rev. Chimie, vol. 51, no. 12, 2000, p.983-985 ISSN 0034 – 7752 (ISI).
- 12 **Danut-Ionel Vaireanu**, *Evaluarea efectului de memorie în acumulatorii Ni-Cd, (Memory effect in Ni-Cd rechargeable batteries)* Rev. Metalurgia, vol. 52, nr.12., 2000, p.20-28, ISSN 0461-9579.
- 13 **Danut-Ionel Vaireanu** și Adriana Simion, *Revitalizarea electrozilor de referință detipul Ag/AgCl, (Revitalisation of Ag/AgCl reference electrodes)* Rev. Chimie, vol. 52, no. 1-2, 2001, p. 34-37 ISSN 0034 – 7752 (ISI).
- 14 **Danut-Ionel Vaireanu**, *Model operațional de exploatare optimă a instalațiilor de rafinare electrolitică a cuprului, (Operational model of Copper refining bath)* Rev. Metalurgia, vol. 53, nr. 1, 2001, p.28-37, ISSN 0461-9579.
- 15 **Danut-Ionel Vaireanu**, *Electric vehicles - a possible future solution for zero emission vehicles*, Metalurgia International, vol. VI, no.1, 2001, p.37-42, ISSN 1582-2214.
- 16 **Danut-Ionel Vaireanu**, *Considerații privind modelarea procesului de extracție electrolitică a zincului. Partea I. Modelul fizic al reactorului de extracție electrolitică, (Consideration regarding the electrowinning process of zinc - Part. I. Physical modelling of the electrochemical reactor)* Rev. Metalurgia vol.53, nr. 3, 2001, p.18-26, ISSN 0461-9579.
- 17 **Danut-Ionel Vaireanu**, *Black platinum coating of platinum wire electrodes used in connection with a flow-through conductivity cell*, Metalurgia International, vol. VI, no.2, 2001, p. 18-24, ISSN 1582-2214.
- 18 **Danut-Ionel Vaireanu**, *Electrochemical cleaning of copper subjected to nickel plating*, Metalurgia International, vol. VI, no.2, 2001, p. 25-30, ISSN 1582-2214.
- 19 **Danut-Ionel Vaireanu**, Cosmin Olteanu și Adriana Simion, *Celulă electrochimică modulară utilizată în analiza prin injectare în flux, (Electrochemical modular cell used in flow injection analysis systems)* Rev. Chimie, vol. 52, no.3, 2001, p.130-133, ISSN 0034 – 7752 (ISI).
- 20 **Danut-Ionel Vaireanu**, *Considerații privind modelarea procesului de extracție electrolitică a zincului. Partea II. Aplicație de calcul privind predimensionarea reactorului de extracție electrolitică, (Consideration regarding the electrowinning process of zinc - Part. II. Application regarding the reactor design)* Rev. Metalurgia vol. 53, nr.4, 2001, p.25-33, ISSN 0461-9579.
- 21 **D.I. Vaireanu**, P.R. Fielden and R.D. Snook *Electrochemical Cells Of Variable Configuration Used In Connection With A Flow Injection Analysis System*, Scientific Bulletin of U.P.B., Series B, vol. 63, no.3, p. 299-308 (Scopus).
- 22 **Danut-Ionel Vaireanu**, *A novel miniaturised electrochemical reactor for sterilisation of organic fluids loaded with biologically active material*, Science and Technology of Environmental Protection, vol.8,nr.1,2001,p.34-39, ISSN 1221- 6909.

- 23 **Danut-Ionel Vaireanu** and Costin Constantinescu, *Electrochemical Removal of Cupric Ions from Industrial Waste Water*, Science and Technology of Environmental Protection, vol.8,nr.1, 2001, p.50-55,ISSN 1221- 6909.
- 24 **Danut-Ionel Vaireanu**, Adriana Simion and Mirela Colesa, *A disposable screen printed silver/silver chloride electrode array for pollution monitoring systems*, Science and Technology of Environmental Protection, vol. 9, nr.2, 2002, p.17-22, ISSN 1221- 6909.
- 25 Maria Mihailescu, Adrian Mihailescu and **Danut-Ionel Vaireanu** *A novel electrochemical array used for mapping the water infiltration in buildings*, Science and Technology of Environmental Protection, vol. 10, nr.1, 2003, p.12-16, ISSN 1221- 6909.
- 26 Maria Mihailescu, Adrian Mihailescu and **Danut-Ionel Vaireanu** and Mirela Colesa, *Economic efficiency of the electrochemically induced coagulation*, Science and Technology of Environmental Protection, vol. 10, nr.1, 2003, p.17-20, ISSN 1221- 6909.
- 27 **Danut-Ionel Vaireanu** and Simona Caprarescu *Trends And Prospects For The Use Of Biodiesel Products* Science and Technology of Environmental Protection, vol. 12, nr.1, 2005, p.31-36, ISSN 1221- 6909.
- 28 **Danut-Ionel Vaireanu**, Simona Caprarescu, Anca Cojocaru And Ioana Maior *Revitalisation of Sealed Lead Acid Rechargeable Batteries*, Science and Technology of Environmental Protection, vol. 12, nr.1, 2005, p.50-56, ISSN 1221- 6909.
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RESEARCH CONTRACTS / PROJECTS

19 NATIONAL AND INTERNATIONAL RESEARCH CONTRACTS (SOME OF THEM WITH MULTI-ANNUAL BUDGETS) as Director / Co-ordinator / Project Leader) AND OTHER 28 AS RESEARCHER / MEMBER OF THE RESEARCH TEAM.

SELECTED RESEARCH CONTRACTS / PROJECTS

- **Contract: 73/08.09.2016, 2016-2018**, Fondul Social European, Programul Operațional Sectorial pentru Dezvoltarea Resurselor Umane Metoda inovativa pentru functionalizarea suprafetelor implanturilor dentare cu scopul imbunatatirii osteointegrării MIFID, Program Operational Competitivitate, Axa 8, Cercetare, dezvoltare tehnologica si inovare (CDI) in sprijinul competitivitatii economice si dezvoltarii afacerilor, ID/Cod My SMIS: P_39_366 / 104809
- **Contract nr.: POSDRU/86/1.2/S/62485**, Sectoral Operational Programme Human Resources Development 2007/ 2013– Education and Professional Development for Economic Growth and for a Knowledge based Society - Quality in Higher Education System, Beneficiaries: Romanian Higher Education Institutions/Universities (2011/2013)
- **Contract PN2, 72-166/2008** (2008-2011) Development of new environmentally friendly corrosion inhibitors from plant extracts to prevent the scale and corrosion deposits in thermal equipment, Beneficiary: ICPE-CA, S.A. Bucharest and Ministry of Education
- **Contract INOVARE nr. 64/2007** (2007-2010), Novel system for the evaluation, control and monitoring of heat exchanger corrosion in biomass furnaces, Beneficiary: OVM-ICCPET S.A, Bucuresti
- **Contract PNCDI2 2886/UPB-CCT** (2007-2010) Technologies for ecological superior use of bio-ethanol, Beneficiary: Ministry of Education
- **International Bilateral Contract Romania – Germany, 2009, MOE 09/R50**, Romanian – German Cooperation in Science and Technology, **Förderkenzeichen:** MOE 09/R50, Forschung und Entwicklung von fortgeschrittenen Systemen für erneuerbare Energien und Abfallrecycling (Research And Development of Advanced Systems For Renewable Energy & Waste Recycling)
- **Project PHARE 2006/018** (2006-2009) : REACH Technical Assistance for Romanian companies in order to fulfil the requirement of REGULATION (EC) No 1907/2006, Beneficiaries: various Romanian companies
- **Contract CEEEX 2006-2008, 2034.6946** Research for advanced materials and equipment used for hydrogen generation used in conjunction with storage and transportation reconvered systems - PEM electrolyser, Beneficiary: S.C. OVM ICCPET S.A. and Ministry of Education, Romania
- **Contract CEEEX 2006-2008, 267/2006**, Novel nanostructured composite materials for solid oxide fuel cells used for direct catalytic oxidation of hydrocarbon) Beneficiary: ICF Bucharest and Ministry of Education, Romania
- **Contract CEEEX 321/2006** (2006-2008), Ecological Thermal cutting of heavy metals and steels, Beneficiaries: various industrial companies and Ministry of Education
- **European GENHyPEM PROJECT 019802/2005** (2005-2008) Proton-exchange Membrane Based Electrochemical H2 Generator, Ref. No. Task WP2: Modified polymers membrane materials, Sub-task: Physical-Chemical Characterisation of Membranes, Beneficiary: various industrial companies
- **Contract CH410601/2006** A study concerning the behaviour of some coatings used for pipelines corrosion control, Beneficiary: SC Pro Auto Industries SA, Bucuresti,
- **Energy systems and the environment. Beneficiary: Council of Europe, Parliamentary Assembly, Committee on the Environment, Agriculture and Local and Regional Affairs**, Reg.#: CE10486-30-March-2005. Raporteur: Bill Etherington, UK

- **Contract nr. CH410417/2004**, Corrosion of copper used for technical-sanitary materials, Beneficiary: S.C. ITM-AMIRO S.A, Bucharest
- **Contract nr. 32552/2004**, Electrochemistry for a cleaner environment, Beneficiary: MEC, Cod CNCSIS/503/UPB CH410413
- **Contract 24578/2003**, The evaluation of corrosion potential for protected and unprotected pipes, Beneficiary: S.C. Munplast S.A. Bucharest,
- **Contract 24579/2003**, Construction and evaluation of a device for cathodic disbonding testing based on accelerated corrosion method. Beneficiary: S.C. Munplast S.A. Bucharest,
- **Contract 24580/2003**, Identification and classification of coating defects by filtered and unfiltered digital microscopy, Beneficiary: S.C. Cromsteel SA Târgoviste,
- **Contract 31951/2004**, Environmental impact study and remediation solutions for liquid and solid zinc wastes Beneficiary: S.C. Artego S.A. Tg. Jiu,
- **Contract 31930/2004**, Environmental impact study and remediation solutions for chloride, iron, magnesium and calcium wastes in water feeding streams reserved for chromium plating electrolyte, Beneficiary: S.C. Cromsteel SA Târgoviste,
- **Contract 31931/2004**, Environmental impact study for sulphuric acid substitution used for ionic exchange columns regeneration. Beneficiary: S.C. Cromsteel SA Târgoviste
- **Contract UPB: 47-01-19/2001**, Reduction of noise by signal processing in electrochemical measurement systems, Beneficiary: CNCSIS Romania