



Curriculum vitae Europass

INFORMAȚII PERSONALE

Nume
Adresă(e)
Telefon(oane)
Fax(uri)
E-mail(uri)
Naționalitate(-tăți)
Data nașterii

EXPERIENȚA PROFESIONALĂ

Perioada	2008 - prezent
Numele și adresa angajatorului	Universitatea Babes Bloyai -ICRR, Cluj-Napoca
Tipul activității sau sectorul de activitate	Laboratorul de Compusi Organici, Colectivul de "Compozite Polimerice"
Funcția sau postul ocupat	Cercetător științific gr.I
Principalele activități și responsabilități	Conduc activitatiile de cercetare în domeniul sintezei si caracterizării materialelor compozite utilizate in medicină, constând în elaborarea de noi monomeri si noi umpluturi anorganice utilizate în formularea acestora. Am intocmit documentatia produselor noi in vederea omologarii si certificarii pentru punerea in fabricație conform normelor europene pentru dispozitive medicale. Am desfasurat activitati de transfer tehnologie catre IMM –uri. Implicarea in intocmirea documentatiei tehnici-stiintifice privind castigarea proiectelor noi de cercetare prin participarea la competitiiile desfasurate in cadrul Programelor de excelenta si programe internationale. Conceperea si intocmirea documentatiei pentru brevete de inventie si articole publicate in reviste de specialitate.
Perioada (de la – până la)	2005-2007
Numele și adresa angajatorului	Institutul de Chimie „Raluca Ripan”, Cluj-Napoca
Tipul activității sau sectorul de activitate	Laboratorul de Compusi Organici, Colectivul de "Compozite Polimerice"
Funcția sau postul ocupat	Cercetător științific gr.II
Principalele activități și responsabilități	Am raspuns si condus activitatile de cercetare privind elaborarea si caracterizare fazei anorganice si organice utilizata in compozita de uz medical. Caracterizarea materialelor compozite cu utilizare in stomatologia restaurativa, de profilaxie si in protetica stomatologica Conducerea temelor de cercetare. Castigarea proiectelor de cercetare prin participarea la competitiiile desfasurate in cadrul Programelor de Excelenta si Programe Internationale. Implicarea in activitatea de obtinere a certificatelor de fabricatie pentru produsele noi omologate. Am desfasurat activitati de transfer tehnologie catre IMM –uri.
Perioada	1999-2005
Numele și adresa angajatorului	Institutul de Chimie „Raluca Ripan”, Cluj-Napoca
Tipul activității sau sectorul de activitate	Laboratorul „Compozite Polimerice”
Funcția sau postul ocupat	Cercetator științific gr III

Principalele activități și responsabilități	Activitati de cercetare privind elaborarea si caracterizare fazei anorganice utilizata in compozita. Caracterizarea materialelor compozite cu utilizare in stomatologia restaurativa, de profilaxie si in protetica stomatologica. Conducerea temelor de cercetare. Castigarea proiectelor de cercetare prin participarea la competitii desfasurate in cadrul Programelor Nationale de C&D. M-am implicat in activitatea de obtinere a certificatelor de fabricatie pentru produsele noi.
Perioada	1998-1999
Numele și adresa angajatorului	Institutul de Chimie „Raluca Ripan”Cluj-Napoca
Tipul activității sau sectorul de activitate	Laboratorul „Compozite Polimerice”
Funcția sau postul ocupat	Cercetător științific
Principalele activități și responsabilități	Activitate de cercetare in domeniul sintezei si caracterizarii rasinilor acrilice, dimetacrilice si pulberi de sticla si ceramice utilizate in formualrea compozitele polimerice. Elaborarea si caracterizarea materialelor compozite
Perioada	1989-1998
Numele și adresa angajatorului	Institutul de Chimie „Raluca Ripan”Cluj-Napoca
Tipul activității sau sectorul de activitate	Laboratorul „Compozite Polimerice”
Funcția sau postul ocupat	Asistent Cercetare
Principalele activități și responsabilități	Activitate de cercetare in domeniul obtinerii si caracterizari fazei anorganice utilizata in compozita stomatologica. Elaborarea si caracterizarea materialelor compozite
EDUCAȚIE ȘI FORMARE	
Perioada	1977-1981
Numele și tipul instituției de învățământ și al organizației profesionale prin care s-a realizat formarea profesională	Liceul profil Industrial Viseu de Sus, jud. Maramures
Domeniul studiat / aptitudini ocupaționale	Profil industrial
Tipul calificării / diploma obținută	Diploma de Bacalaureat
Nivelul de clasificarea a formei de instruire/ învățământ în sistemul național sau internațional	Invatamint in sistem national
Perioada	1983-1989
Numele și tipul instituției de învățământ și al organizației profesionale prin care s-a realizat formarea profesională	Univesitatea "Babes-Bolyai", Cluj-Napoca, Facultatea de Tehnologie Chimica, Sectia Tehnologie Chimica Anorganica
Domeniul studiat / aptitudini ocupaționale	Profil Chimie Anorganica
Tipul calificării / diploma obținută	Diploma de Inginer in profilul Chimie
Nivelul de clasificarea a formei de instruire/ învățământ în sistemul național sau internațional	Invatamind in sistem national
Perioada	1999-2002
Numele și tipul instituției de învățământ și al organizației profesionale prin care s-a realizat formarea profesională	Universitatea Babes Bolyai, Cluj-Napoca
Domeniul studiat / aptitudini ocupaționale	Profil Chimie
Tipul calificării / diploma obținută	Diploma de Doctor in Chimie

Nivelul de clasificarea a formei de instruire/ învățământ în sistemul național sau internațional	Invatamint in sistem national			
Perioada	3.11- 9 .11. 1993			
Calificarea / diploma obținută	Certificat de absolvire la "International Centre for Science and High Technology"			
Disciplinele principale studiate / competențe profesionale dobândite	"Advanced Workshop on Whiskers and Particles in Composite Materials Technology" Domeniul: Materiale Compozite			
Numele și tipul instituției de învățământ / furnizorului de formare	University of Trieste, ITALIA			
Perioada	9.05-13.05. 2006.			
Calificarea / diploma obținută	Diplomă			
Disciplinele principale studiate / competențe profesionale dobândite	Xpert PBS (Xpert Personal Business Skills) promovat de Europäische Prüfungszentrale din Dortmund, Germania care are ca scop final formarea profesională de bază în domeniul competențelor sociale / managementul de proiect			
Numele și tipul instituției de învățământ / furnizorului de formare	Asociația EUROED București.			
Perioada	7.02-9.02 2008.			
Calificarea / diploma obținută	Diplomă de participare			
Disciplinele principale studiate / competențe profesionale dobândite	Workshop-ul „Strengthening the Role of Women Scientists in Nano-Science”			
Numele și tipul instituției de învățământ / furnizorului de formare	Institutul „Jozef Stefan” din Ljubljana, Slovenia			
APTITUDINI ȘI COMPETENȚE PERSONALE	Limba străină 1	Limba străină 2	Limba străină 3	Etc.
Limba(ile) maternă(e)	Romană			
Limba(ile) străină(e) cunoscută(e)	Engleză			
abilitatea de a citi	bine			
abilitatea de a scrie	bine			
abilitatea de a vorbi	bine			
Aptitudini și competențe artistice Muzică, desen, literatură etc.	Muzica Literatura			
Aptitudini și competențe și sociale Locuiți și munciți cu alte persoane, într-un mediu multicultural, ocupați o poziție în care comunicarea este importantă sau desfășurați o activitate în care munca de echipă este esențială. (de exemplul cultură, sport etc.)	Zona geografica in care locuiesc si muncesc, Transilvania, face ca sa convietuiesc intr-un mediu multicultural, astfel incit comunicarea intre mine si persoanele de alte etnii, respectiv alte culturi, sa fie permanenta si de buna calitate. Intrucit natura activitatii specifice cercetarii necesita munca in echipa, iar pozitia ierarhica in care ma aflu la ora actuala (sef colectiv si director de proiecte de cercetare) implica o comunicare permanenta si buna cu numeroase persoane, ma indreptateste sa consider ca sunt o persoana sociabila, comunicativa, placuta.			

Aptitudini și competențe organizatorice

De exemplu coordonați sau conduceți activitatea altor persoane, proiecte și gestionați bugete; la locul de muncă în acțiuni voluntare (de exemplu în domenii culturale sau sportive) sau la domiciliu.

Aptitudini și competențe tehnice

(utilizare calculator, anumite tipuri de echipamente, mașini etc.)

Permis(e) de conducere**Alte aptitudini și competențe**

Competențe care nu au mai fost menționate anterior

Informații suplimentare**Anexe**

Am competența managerială pentru conducerea proiectelor și a echipei de cercetare prin experiența rezultată în urma coordonării unui număr important de proiecte în cadrul PNCD, CEEEX, PNII și 1 contract internațional Second Co-Applicant COST CHEMISTRY WORKING GROUP PROPOSAL. Am fost și sunt membru în comitete de organizare și comitetul științific în cadrul 3 Conferințe Internaționale, 3 Congrese Internaționale și 2 Conferințe Naționale. Sunt **expert evaluator CNCISIS** din 2007, pentru următoarele domenii: 1. Știința materialelor polimerice; 2. Chimie anorganică; 3. Știința materialelor compozite. Fac parte din „Registrul național al experților din învățământul superior și cercetare”, conform http://www.edu.ro/rne_form2.pdf.
Domenii de expertiză specifică: 1. Materiale compozite, 2. Materiale nanostructurate. **Domenii de expertiză generală:** 1. Chimie anorganică, 2. Materiale compozite. Am organizat și coordonat activitatea de amenajare și dotare, la standarde similare cu cele din universități europene de prestigiu, a laboratoarelor de cercetare în care își desfășoară activitatea de cercetare grupul pe care îl conduc

Utilizare calculator: Editare Word, Excel, Internet.

Am conceput o serie de instalații de laborator funcționale.

Acționare și exploatare aparatură specifică de laborator (SEM, HPLC, INSTRON UNIVERSAL, UV-Vis, FTIR)

Da

Lucrări publicate (**peste 200**), Brevete și cereri de brevete (**20 + 12**), Cărți și capitole de carte (**2+10**), Premii (**22**), Produse omologate și cu Certificat de fabricație (CE- **21**); Membru în comisii de doctorat (**peste 35**; UMF-Cluj-Napoca, UMF-Targu Mures, UBB- Facultatea de Chimie; UPB- Facultatea de Mediu; USAMV-Cluj-Napoca, UT-Cluj Napoca)

ARTICOLE ISI PUBLICATE IN REVISTE NATIONALE SI INTERNATIONALE

1. Schröter, F.-J., **Moldovan, M.**, Sarosi, C., Ilie, N., Enhancing dentin bonding through new adhesives formulations with natural polyphenols, tricalcium phosphate and chitosan, *Dental Materials*, **2024**, 40(2), pp. 276-284, <https://doi.org/10.1016/j.dental.2023.11.014>
2. Muntean A, Sarosi C., Petean I., Cuc S., Carpa R., Chis IA., Ilea A., Delean A.G., **Moldovan M.**, Developing Bioactive Hydrogels with Peptides for Dental Application, *Biomedicines* **2024**, 12(3), DOI:10.3390/biomedicines12030694
3. Mirica, I.-C., Furtos, G., **Moldovan, M.**, Prodan D. Petean I., Campian R.S., Pall, E., Lucaciu, O., Morphology, Cytotoxicity, and Antimicrobial Activity of Electrospun Polycaprolactone Biomembranes with Gentamicin and Nano-Hydroxyapatite, *Membranes* **2024**, 14(1),10, <https://doi.org/10.3390/membranes14010010>
4. Furtos, G., Prodan, D., Sarosi, C., **Moldovan M.**, Korniejenko K., Miller L., Fiala, L., Iveta, N., Mechanical Properties of MiniBars™ Basalt Fiber-Reinforced Geopolymer Composites, *Materials*, **2024**, 17(1),248, <https://doi.org/10.3390/polym15234591>
5. Furtos G., Prodan D., Sarosi, C., **Moldovan M.**, Korniejenko K., Miller L., Fiala L., Iveta N., Mechanical Properties of MiniBars™ Basalt Fiber-Reinforced Geopolymer Composites, *Materials* **2024**, 17(1) DOI10.3390/ma17010248
6. Prodan, D., **Moldovan, M.**, Cuc, S., Sarosi, C., Petean I., Filip M., Carpa R., Doukeh, R., Mirica, I.-C., Advanced Dentistry Biomaterials Containing Graphene Oxide, *Polymers*, **2024**, 16(12), 1743, DOI10.3390/polym16121743
7. **Moldovan M.**, Ducea D., Cuc S., Sarosi C/, Prodan D., Petean I., Furtos G., Ionescu A., Ilie N., Chemical and Structural Assessment of New Dental Composites with Graphene Exposed to Staining Agents, *J. Funct. Biomater.* **2023**, 14(3), 163; <https://doi.org/10.3390/jfb14030163>.
8. Muresan S. M. C., Dreanca A., Repciuc C., Dejescu C., Rotar O., Pop R.A., Pantea S., Pall E., Ciotlaus I., Sarosi C., Mohan A.G., **Moldovan M.** and. Oana L, Dental Hydrogels with Essential Oils with Potential Activity in Periodontitis, *Appl. Sci.* **2023**, 13(3), 1787; <https://doi.org/10.3390/app13031787>
9. Kırgız M.S. Mirza J., Cuc S., Prodan D. Saroşi C., Perhaiță, I., Carpa R., **Moldovan M.**, Popa D., Varvara S., Popa M., Physico-Antibacterial Feature and SEM Morphology of Bio-Hydraulic Lime Mortars Incorporating Nano-Graphene Oxide and Binary Combination of Nano-Graphene Oxide with Nano Silver, Fly Ash, Zinc, and Titanium Powders, *Buildings* **2023**, 13(1), 172; <https://doi.org/10.3390/buildings13010172>
10. Beddoe, M., Gözl, T., Barkey, M., Bau E., Godejohann M., Maier S.A., **Moldovan M.**, Prodan D., Ilie, N., Tittl, A. Probing the micro- and nanoscopic properties of dental materials using infrared spectroscopy: A proof-of-principle study, *Acta Biomaterialia*, **2023**, 168, pp. 309-322, <https://doi.org/10.1016/j.actbio.2023.07.017>
11. Rusu, M., Balc, N., **Moldovan, M.**, Cuc S. Petean I, Cosma, C., Leordean, D., Recycled PET Composites Reinforced with Stainless Steel Lattice Structures Made by AM, *Polymers* **2023**, 15(23), 4591; <https://doi.org/10.3390/polym15234591>
12. Furtos, G., Prodan, D., Sarosi, C., **Moldovan, M.**, Łach M., Melnychuk, M., Korniejenko, K., Advanced Geopolymer-Based Composites for Antimicrobial Application, *Materials* **2023**, 16(23), 7414; <https://doi.org/10.3390/ma16237414>
13. Ispas, A., **Moldovan, M.**, Cuc, S., Petean I., Buduru S., Manziuc, M., Iosif, L., SEM Evaluation of Marginal Adaptation E-Max Crowns Manufactured by Printing-Pressed and Milling, *Diagnostics* **2023**, 13(23), 3518; <https://doi.org/10.3390/diagnostics13233518>
14. Lacan, I., **Moldovan, M.**, Ardelean, I. The Influence of Chitosan on Water Absorption and Solubility of Calcium Phosphate Cement, *Coatings* **2023**, 13(9), 1641; <https://doi.org/10.3390/coatings13091641>
15. Opris, H., Baciut, M., **Moldovan, M.**, Cuc S., Petean I., Opris D., Bran S., Onisor F.G., Armenea, G., Baciut, G., Comparison of the Eggshell and the Porcine Pericardium Membranes for Guided Tissue Regeneration Applications, **2023**, *Biomedicines*, 11(9), 2529, <https://doi.org/10.3390/biomedicines11092529>
16. Barbur, I., Opris, H., Crisan, B., Cuc S., Colosi H.A., Baciut, M., Opris D., **Moldovan M.**, Prodan D., Crisan L., Dinu, C., Baciut, G., Statistical Comparison of the Mechanical Properties of 3D-Printed Resin through Triple-Jetting Technology and Conventional PMMA in Orthodontic Occlusal Splint Manufacturing, *Biomedicines* **2023**, 11(8), 2155; <https://doi.org/10.3390/biomedicines11082155>
17. Lacan, I., **Moldovan, M.**, Sarosi, C., Cuc S., Pastrav M., Petean, I., Ene, R, Mechanical Properties and Liquid Absorption of Calcium Phosphate Composite Cements, *Materials* **2023**, 16(16), 5653; <https://doi.org/10.3390/ma16165653>
18. Barbur, I., Opris, H., Colosi, H.A., Baciut, M., **Moldovan, M.**, Cuc S. Petean I, Opris D., Dinu, C.M., Baciut, G., Improving the Mechanical Properties of Orthodontic Occlusal Splints Using Nanoparticles: Silver and Zinc Oxide, *Biomedicines* **2023**, 11(7), 1965; <https://doi.org/10.3390/biomedicines11071965>
19. Ardelean, A.I., Dragomir, M.F., **Moldovan, M.**, Sarosi, C. Paltinean G.A., Pall E., Tudoran L.B, Petean, I., Oana, L., In Vitro Study of Composite Cements on Mesenchymal Stem Cells of Palatal Origin, *Int. J. Mol. Sci.* **2023**, 24(13), 10911; <https://doi.org/10.3390/ijms241310911>

20. Chiş, I.-A., Andrei, V., Muntean, A., **Moldovan M.**, mesaros A., Dudescu, M.C., Ilea, A., Salivary Biomarkers of Anti-Epileptic Drugs: A Narrative Review, *Diagnostics* **2023**, 13(11), 1962; <https://doi.org/10.3390/diagnostics13111962>
21. Ilie, N., Ionescu, A.C., Huth, K.C., **Moldovan, M.**, Light Transmission Characteristics and Cytotoxicity within A Dental Composite Color Palette, *Materials* **2023**, 16(10),3773, <https://doi.org/10.3390/ma16103773>
22. Piciu, D., Bran, S., **Moldovan, M.**, Varvara S., Piciu A., Cuc S., Moisesescu-Goia C., Barbus, E., Mester, A., Onisor, F., Radioiodine-131 Therapy Used for Differentiated Thyroid Cancer Can Impair Titanium Dental Implants: An In Vitro Analysis, *Cancers* **2023**, 15(9), 2558; <https://doi.org/10.3390/cancers15092558>
23. Ilie N., **Moldovan, M.** Ionescu, A. C., Microstructure and Mechanical Behavior of Modern Universal-Chromatic and Bulk-Fill Resin-Based Composites Developed to Simplify Dental Restorative Procedures, *J. Funct. Biomater.* **2022**, 13(4), 178; <https://doi.org/10.3390/jfb13040178>
24. Ionescu A.C.; Hahnel, S.; Delvecchio, P.; Ilie, N.; **Moldovan, M.**; Zambelli, V.; Bellani, G.; Brambilla, E., Microbiological models for accelerated development of secondary caries in vitro: Microbiological models simulating secondary caries, *Journal of Dentistry* 127, **2022**, 104333; <https://doi.org/10.1016/j.jdent.2022.104333>
25. Iosif, C.; Cuc, S. Prodan, D.; **Moldovan, M.**; Petean I.; Labunet, A.; Barbu T. L.; Badea, I.C.; Man, S. C.; Badea, M. E.; Chifor, R. Mechanical Properties of Orthodontic Cements and Their Behavior in Acidic Environments, *Materials* **2022**, 15(22), 7904; <https://doi.org/10.3390/ma15227904>
26. Voina Cosma, L. L.; **Moldovan, M.**; Muntean, A.; Olteanu, C.D.; Chifor, R.; Badea, M.E., Novel Technology for Enamel Remineralization in Artificially Induced White Spot Lesions: In Vitro Study, *Coatings* **2022**, 12(9), 1285; <https://doi.org/10.3390/coatings12091285>
27. Vartolomei, A.C.; Ghiga, D.V.; Serbanoiu, D.C.; **Moldovan, M.**; Cuc, S.; Pacurar M.; Pollmann, M. C. F., Comparative Evaluation of Two Bracket Systems' Bond Strength: Conventional and Self-Ligating, *Dent. J.* **2022**, 10(10), 196; <https://doi.org/10.3390/dj10100196>
28. Ilie N.; Serfözö E.N.; Prodan, D.; Diegelmann, J.; **Moldovan, M.**, Synthesis and performance of experimental resin-based dental adhesives reinforced with functionalized graphene and hydroxyapatite fillers, *Materials & Design*, 221, **2022**, 110985, <https://doi.org/10.1016/j.matdes.2022.110985>
29. Cosma C.; **Moldovan, M.**; Simion, M.; Balc, N., Impact of laser parameters on additively manufactured cobalt-chromium restorations, *The Journal of Prosthetic Dentistry*, 128 (3), **2022**, 421-429, doi.org/10.1016/j.prosdent.2020.11.043
30. Lacan I.; **Moldovan M.**; Sarosi C.; Ardelean I., Chitosan Effect on Hardening Dynamics of Calcium Phosphate Cement: Low-Field NMR Relaxometry Investigations, *Polymers* **2022**, 14(15), 3042; <https://doi.org/10.3390/polym14153042>
31. Tisler C.E.; Moldovan, Moldovan M.; Petean I.; Buduru S.D.; Prodan D.; Sarosi C.; Leucuța D.C.; Chifor, R.; Badea M.E.; Ene R., Human Enamel Fluorination Enhancement by Photodynamic Laser Treatment, *Polymers* **2022**, 14(14), 2969; <https://doi.org/10.3390/polym14142969>
32. Vartolomei, A.C.; Serbanoiu D.C.; Ghiga D.V.; **Moldovan M.**; Cuc S.; Pollmann M.C.F.; Pacurar M., Comparative Evaluation of Two Bracket Systems' Kinetic Friction: Conventional and Self-Ligating, *Materials* **2022**, 15(12), 4304; <https://doi.org/10.3390/ma15124304>
33. Lopes P.M.P.; Moldovan D.; **Moldovan M.**; Carpa R.; Saroşi C.; Păşcuță P.; Moldovan Mazilu A.; Fehete R.; Popescu V., New Composite Hydrogel Based on Whey and Gelatin Crosslinked with Copper Sulphate, *Materials* **2022**, 15(7), 2611; <https://doi.org/10.3390/ma15072611>
34. Iosif, C., Cuc S., Prodan, D., Moldovan, M., Petean I. Badea M. E., Sava S. Tonea A. Chifor. R. Effects of Acidic Environments on Dental Structures after Bracket Debonding, *Int. J. Mol. Sci.* **2022**, 23(24), 15583; <https://doi.org/10.3390/ijms232415583>
35. Mester, A., **Moldovan, M.**, Cuc, S., ...Bran, S., Onisor, F., Structural Changes in Resin-Based Composites in Saliva of Patients with Leukemia before Starting Chemotherapeutic Regimen *Polymers*, **2022**, 14(3), 569, DOI: 10.3390/polym14030569
36. Prodan, D., **Moldovan, M.**, Chisnoiu, A.M., Chisnoiu R.M.; Furtos G.; Cojocaru I.; Delean, A.G., Cimpean, S.I., Development of New Experimental Dental Enamel Resin Infiltrants—Synthesis and Characterization, *Materials*, **2022**, 15(3), 803, DOI: [10.3390/ma15030803](https://doi.org/10.3390/ma15030803)
37. Tisler, C.E., Chifor, R., Badea, M.E., Chifor, I., **Moldovan M.**, Badea, A.F. Photodynamic Therapy (PDT) in Prosthodontics: Disinfection of Human Teeth Exposed to *Streptococcus mutans* and the Effect on the Adhesion of Full Ceramic Veneers, Crowns, and Inlays: An In Vitro Study, *Biomedicines*, **2022**, 10(1), 144, DOI: 10.3390/biomedicines10010144.
38. Mazilu Moldovan A.; Popescu V.; Ionescu, Ionescu C.V.; Cuc S.; Craciun A.; **Moldovan M.**; Dudea D.; Mesaros A.S., Various Aspects Involved in the Study of Tooth Bleaching Procedure: A Questionnaire-Based Study, *Int. J. Environ. Res. Public Health* **2022**, 19(7), 3977; <https://doi.org/10.3390/ijerph19073977>
39. Dascalu L.M.; **Moldovan M.**; Sarosi C.; Sava S.; Dreanca A.; Repciuc C.; Purdoiu R.; Nagy A.; Badea M.E.; Paun A.G.; Badea I.C.; Chifor R., Photodynamic Therapy with Natural Photosensitizers in the Management of Periodontal Disease Induced in Rats, *Gels* **2022**, 8(2), 134; <https://doi.org/10.3390/gels8020134>
40. Prodan, D.; Filip M.; Vlassa, M.; **Moldovan, M.**; Carpa, R., Chromatographic profile of major whey proteins in some dairy beverages based on milk serum, *Turkish Journal of Chemistry* **2022**, 46(6), DOI:[10.55730/1300-0527.3497](https://doi.org/10.55730/1300-0527.3497)

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22. C.Prejmerean, **M.Moldovan**, T.Buruiana, E.Buruiana, A.Badanoiu, G.Voicu, M.Trif, L.Silaghi-Dumitrescu, G.Furtos, A.Colceriu, C.Tamas, D.Prodan, O.Musat, „*Dental product, ionomer cement type ,resins modified and the process of obtaining it*”. **Cerere de brevet nr. A/00478/23.06.2008**
23. **M.Moldovan**, O.Musat, I.Antoniac, C.Prejmerean, M.Trif, C.Sarosi, S.Boboia, L.SilaghiDumitrescu, „*Biomimetic biodegradable composition used for bone implants manufacture*”, **Cerere de brevet nr. A/01325/ 10.12.2010**
24. **Moldovan M**, Prejmerean C, Prodan D, Silaghi D L, Sarosi C, Cuc S, DudeaD, *Compozitia gelului de albire pe baza de agenți naturali*”, **Cerere de brevet nr. A/00482/8.07.2015**
25. **M. Moldovan**, S. Pruneanu, C. Socaci, M. C. Rosu, C. Sarosi, S. Cuc, D. Prodan, *Material compozit pe baza de oxid de grafena destinat restaurarilor dentare*, **Cerere de brevet nr. A/00902/24.11.2016**
26. **M.Moldovan**, C.Prejmerean, D.Prodan, C.Sarosi, L.Silaghi-Dumitrescu, D.Dudea, C.Gasparik, G.Popescu, C.Agapescu, *Compoziție destinată albirii și regenerării smalțului dentar cu proprietăți specifice utilizării acesteia în cosmetica dentară*, **Cerere de brevet nr. A00900/ 24.11.2016**
27. **M.Moldovan**, R.Oprean, A.C.Saplontăi–Pop, D.Prodan, L.C.Sarosi, L.Silaghi-Dumitrescu, S.Cuc, C.Agapescu, *Antigregante plachetare naturiste pe bază de extract de Allium cepa L utilizate in preventia primara cardiovasculara*, **Cerere de brevet nr. A00677/18.09.2017**
28. **M.Moldovan**, A.L.Roman, A.Soanca, C.A.Prejmerean, L.C.Sarosi, L.Silaghi-Dumitrescu, D.Prodan, S.Cuc, *Compozit destinat restaurărilor eroziunilor dentare în timpul tratamentelor chirurgicale de acoperire radiculară*, **Cerere de brevet nr. A00676/18.09.2017**

PREMIU

1. Premiu pentru rezultatele obtinute în cercetare în anul **2014** la UBB, **CSI Moldovan Marioara** (Babeș-Bolyai University, Cluj-Napoca, 12.01. **2015**
2. Premiul **BUNEA DANIEL** for **2012 years**, **Moldovan Marioara** (Babeș-Bolyai University, Cluj-Napoca) granted by the Romanian Society of Biomaterials ,
3. **Gold Medal to PRO INVENT 2012**, "Composition biomimetics biodegradable destined the manufacturing of bone implants " **Request Patent A/01325/ 10.12.2010**, **Autori: Moldovan Marioara**, Olga Musat, Vasile Iulian Antoniac, Prejmerean Cristina, Marcela Trif, Codruta Sarosi, Stanca Boboia, Laura Silaghi Dumitrescu International Salon of Inventica PRO INVENT, Xth march, **2012**, Cluj-Napoca
4. **Silver Medal to EUREKA, 2010**, **M.Moldovan**, C.Prejmerean, A.Colceriu, P.Bodoga, G.Furtos, L.Vezsenyi, A.Farcas „*Two component composition, mono-paste type, for dental caries prophylaxis*” **Patent No.122071/30.12.2008** The Belgian and International Trade Fair for Technological Innovation, 20th nov., Brussels
5. **Gold Medal to PRO INVENT 2010**, **M.Moldovan**, C.Prejmerean, A.Colceriu, P.Bodoga, G.Furtos, L.Vezsenyi, A.Farcas , “Two-component composition, manopasta type, for dental caries prophylaxis” **Patent No.122071/30.12.2008** International Salon of Inventica PRO INVENT, VIIIth march, **2010**, Cluj-Napoca
6. **Diploma of excellence and Silver Medal to PRO INVENT 2010**, **M.Moldovan**, C.Prejmerean, A.Colceriu, P.Bodoga, G.Furtos, L.Vezsenyi, A.Farcas, “Two-component composition, manopasta type, for dental caries prophylaxis” **Patent No.122071/30.12.2008**. International Salonu of Inventica PRO INVENT, VIIIthmarch, **2010**, Cluj-Napoca
7. **Gold Medal to INVENTIKA 2009**, C.Prejmerean, A.Petrescu, A.Enescu, **M.Moldovan**, G.Furtos, A.Colceriu, C.Tamas, M.Ionescu, M.Trif, D.Prodan, O.Musat, L.Silaghi-Dumitrescu, P.Bodoga, *Dental product composite type armed with glass fiber and the process forobtaining it*, **Patent No.123334/20.04.2007**
8. **Bronz Medal to INVENTIKA 2009**, **M.Moldovan**, O.Musat, M.Trif, C.Tamas, D.Prodan, L.Silaghi–Dumitrescu, D.Dudea, “*Self-etch adhesives used in dentistry*”, **Patent.Nr.123454/30.05.2012**
9. **Prize for the best poster**, C. Sarosi, **M.Moldovan**, C.Prejmerean, M.Trif, M.Rusu, Gh. Marcu, L.Silaghi-Dumitrescu, C.Nicola, “*SEM and IR analysis of some experimental nanocomposites used in medicine*” International Conference “Biomaterials & Medical Devices” BiomMedD’2008, 13-16th november, **2008**, Bucharest
10. **Prize for the best poster**, A.Almasi, **M.Moldovan**, D.Prodan, C.Tamas, D.Borzea “*The comparative absorption and solubility of experimental and commercial nano-composites in 4 diverse environments*” International Congress on Dentistry "NAPOCA BIODENT", 8-10th november, **2007**, Cluj-Napoca, ISBN 978-973-8915-45-9
11. **Excellence Diploma and 1st Prize**, **M. Moldovan**, C. Prejmerean, A. Colceriu, G. Furtos, L. Vezenyi *Technology transfer for dental products: SEALING S/L; RESTACRIL AP/P; RESTACRILAL/C*, Created in Romania, CONRO, 7-12th octombrie, **2003**, Bucharest
12. **1st Prize**, **M. Moldovan**, C. Prejmerean, A. Colceriu, G. Furtos, L. Vezenyi, *Technology transfer for dental products: SEALING S/L; RESTACRIL AP/P; RESTACRILAL/C*, National Symposium MATNANTECH, iuly, **2003**, Neptun

13. **Diploma for the best poster, M. Moldovan**, C.Prejmerean, A.Colceriu, G.Furtos, L.Vezsenyi, D. Prodan, „*Preparation and Characterization of some Nanofiller and Nanocomposite used in Dentistry*”, International Conference “Biomaterials&Medical Devices”, november, **2004**, Bucharest, ISBN 973-718-083-6
14. **Prize for the best poster, O. Fodor, M. Moldovan**, A. Pop, I. Tig, “Physical, chemical and structural characteristics of composite resins”, International Congress of Dental Materials-NAPOCA BIODENT, november, **2005**, Cluj-Napoca
15. **Excellence Diploma for “Best oral presentation supported by a young research”**, A.Colceriu, **M.Moldovan**, C.Prejmerean, G.Furtos, L.Vezsenyi, A.Farcas, “ *Composite with zirconium nanofillers used to restore the morphology of dental crowns*”, National Symposium MATNANTECH, 14thFebruary, **2004**, Busteni
16. **Second Prize in the “Young Researches in Matnantech Program”**, A.Colceriu, **M.Moldovan**, C.Prejmerean, G.Furtos, L.Vezsenyi, D.Prodan, „*Composite with zirconium nanofillers used to restore the morphology of dental crowns*” National Symposium MATNANTECH, 15thOctober, **2004**, Sinaia
17. C.Tamas, **M.Moldovan**, M.Rusu, V.Simon, A.Colceriu, D.Prodan, G.Furtos, C.Alb, “*Nanoparticles for dental composites, preparation and characterization*”, Travel Award, 20th European Conference on Biomaterials, September-October, **2006**, Nantes
18. A.Colceriu, **M.Moldovan**, C.Prejmerean, D.Prodan, L.Vezsenyi, G.Furtos, C.Tamas, L.Colceriu, “*The obtaining and characterization of some dental nanocomposites and the relationship between the abrasive wear and their nanostructure*” Travel Award, 19th European Conference on Biomaterials, September, **2005**, Sorrento, Italia
19. C.Alb, S.Alb, **M.Moldovan**, D.Dudea, A.Pop, S.Baciu, “*In vivo and in vitro study of a new dental composite material (prezentare orală)*”, Travel Award, 19th European Conference on Biomaterials”, September, **2005**, Sorrento, Italia

CONFERINTE INVITATE

1. Moldovan Marioara
6th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BIOMMEDD’2014 on 17th–20stSeptember, **2014**, “Effect of a natural whitening agent application on restorative composites “
2. **M. Moldovan**
5th International Conference “Biomaterials, Tissue Engineering & Medical Devices” BiomMedD’2012, on 29thAugust – 1stSeptember, **2012**.
3. **M. Moldovan**, C. Prejmerean, M.Trif, O. Musat, A.Colceriu, G. Furtos, C. Tămaș, D. Prodan, L.Silaghi-Dumitrescu “Cytotoxic effects and chemical properties of the dental adhesives”
Workshop Support, COST D33, Vilnius University, Faculty of Chemistry, march, **2009**
(*oral presentation*)
4. C. Prejmerean, **M. Moldovan**, M. Trif, L. Silaghi-Dumitrescu, G. Furtos, D. Prodan, C. Sarosi, S.Boboia
Study of dental tissues / resin-based materials interface”
COST D33 Final Workshop Nanoscale Electrochemical and Bioprocesses (Corrosion) at Solid-aqueous Interfaces of Industrial Materials, 13th–15th May, **2009**, Cluj – Napoca, Romania, ISBN: 978-606-8008-30-1 (*oral presentation*)
5. **M. Moldovan**, C. Prejmerean, M.Trif, O. Musat, A.Colceriu, G. Furtos, C. Tămaș, D.Prodan, L.Silaghi-Dumitrescu
“Possible breakage mechanism to the filler-resin link and composite/dentine interface”
Workshop Support, COST D33, **2008**, Obernei, Franta (*oral presentation*)
6. **M.Moldovan**, C.Prejmerean, M.Trif, A.Colceriu, G.Furtos, C.Tamas, D.Prodan
„Biochemical and microbiological processes occurring at the interfaces between dental materials and oral medium”
Workshop Support, COST D33, Dipartimento Di Fisica, CASTI, CNR-INFM Regional Laboratory, Università degli Studi dell’Aquila, May, **2007**, Aquila, Italy (*oral presentation*)
7. **M. Moldovan**, C. Prejmerean, M.Trif, A.Colceriu, G. Furtos, C. Tamas, D. Prodan “*Establish chemical, biochemical and microbiological processes, who happened at the interfaces: metal; composite; dental hard tissue in oral medium*”
Workshop Support, COST D33, Dunarea de Jos University, September, **2006**, Galati, Romania (*oral presentation*)
8. **M. Moldovan**, C. Prejmerean, M.Trif, A.Colceriu, G. Furtos, C. Tamas, D. Prodan
“Chemical, biochemical and microbiological processes, at the interface metal/composite materials in artificial saliva”
Workshop Support, COST D33, TNO Science and Industry, December, **2006**, Den Helder, Nederland (*oral presentation*)
9. **M.Moldovan**, C.Prejmerean, A.Colceriu, C.Tamas, G.Furtos, D.Prodan, M.Trif, M.Barsan
“Effect of coupling agents on the local mechanical properties of bioactive dental composites”
International Conference on Biomaterials & Medical Devices- BiomMedD’2006, November, **2006**, Iasi, Romania (*oral presentation*)

PROIECTE DE CERCETARE

Programul/Proiectul	Funcția	Perioada
1. ORIZONT 2000, Proiect 246	Executant	1998
„Obținerea unor materiale compozite polimerice auxiliare pentru protetica și tratamente dentare” ORIZONT 2000, Proiecte 246 și 977	Executant	1997
2. „Cercetari privind obținerea unor materiale biocompatibile și tehnologiile pentru realizarea unor implante de uz uman prin pulverizare cu jet de plasma” M.I.-D.G.S.I.C.M.; ISIM Timisoara, Contract 17/B18, ORIZONT 2000, Proiect 246,	Executant	1996
3. „Studii privind aprofundarea și dezvoltarea domeniului compozitelor polimerice acrilice și polipirolice” Ministerul Cercetării și Tehnologiei, Program "ORIZONT 2000" Contract nr. 284/B/95,	Executant	1995
4. „Cercetari privind realizarea unei proteze vasculare grefata la suprafata cu substante anticoagulante” Ministerul Cercetării și Tehnologiei,	Executant	1994-1995
5. Ministerul Industriei și Tehnologiei, Contract nr. 65/B,	Executant	1994
6. „Studiul structurii și proprietăților unor compozite polimerice cu noi compoziții ale fazei organice și ale umpluturii” Ministerul Cercetării și Tehnologiei, Contract nr. 956/B,	Executant	1993
7. Ministerul Învățământului și Științei, Contract nr. 1004/515,	Executant	1990-1991
8. „Studiul structurii și proprietăților compozitelor polimerice dimetacrilice cu perspective de aplicare în domeniul medical” Ministerul Industriei Chimice și Petrochimice, Contract nr. 490,	Executant	1990-1991
9. "Compozite polimerice dimetacrilice de uz stomatologic" Ministerul Industriei Chimice și Petrochimice, Contract nr. 489,	Executant	1990-1991
10. Program RELANSIN, Subprogram 5, Proiect: 1414, Executant, „Cercetări privind realizarea de materiale opace la raze X cu aplicabilitate în medicina”	Executant	1999-2001
11. Program VIASAN, Subprogram 1, Proiect: 58, „Biomateriale compozite bazate pe sisteme monomerice și umpluturi anorganice bioactive cu aplicabilitate în protetica stomatologică “	Executant	2001-2003
12. Program MATNANTECH, Subprogram 3, Proiect: 18 , Director Proiect, „Transfer tehnologic pentru produsele stomatologice SIGILAR S/L; RESTACRIL AP/P; RESTACRIL AL/C”	Director Proiect	2001-2002
13. Program BIOTECH, Subprogram 1, Proiect: 02-1-PV-429/2002, Executant, „Biomateriale compozite bazate pe oligomeri superiori de rășini epoxidice modificate cu acizi nesaturați și umpluturi de sticle, cu aplicabilitate în stomatologia restaurativă”	Executant	2002-2005
14. Program INVENT, Subprogram PT2, Proiect: 49 , Director Proiect, „Bicompozite bazate pe sisteme monomerice fotopolimerizabile și umpluturi anorganice cu aplicabilitate în profilaxia stomatologică”	Director Proiect	2002-2004
15. Program MATNANTECH, Subprogram 1, Proiect: 123(301) Titlul temei „Material compozit cu nanoumplutura pe baza de zirconiu utilizat pentru refacerea morfologiei coroanelor dentare”	Director Proiect	2003- 2005
16. Program MATNANTECH, Subprogram 1, Proiect: 154(301) Titlul temei „Elaborarea unui ciment compozit stomatologic cu priza dubla utilizat pentru fixarea protezelor unitare și parțiale fixe”	Executant	2003- 2005
17. Program VIASAN, Subprogram 1, Proiect: 260 Titlul temei „Elaborarea unor noi biomateriale autohtone bazate pe sisteme de rasini compozite utilizate ca și componente fizionomice pentru protezele dentare fixe metalo-polimerice”	Director Proiect	2003- 2005
18. Program BIOTECH, Subprogram 1, Proiect: 3360 Titlul temei „Produs stomatologic multifuncțional de tip compomer pe bază de sticle superficial active și monomeri dimetacrilici modificați”	Executant	2003- 2005
19. Program BIOTECH, Subprogram 1, Proiect: 4555 Titlul temei „Elaborarea unui nou bioprodus de tip compozit armat cu fibra de sticla cu aplicabilitate în protetica stomatologică”	Executant	2004-2006
20. Program MATNANTECH, Subprogram 1, Proiect: 188(401)	Director	2004-2006

Titlul temei „Biomateriale Compozite Avansate cu Nanoumpluturii si Polimeri Uretanici utilizate in Biomedicina”	Proiect	
21. Program MATNANTECH, Subprogram 9, Proiect: 261(409) Titlul temei „Biocompozite cu nanoumpluturi utilizate in medicina”	Executant	2004-2006
22. Program RELANSIN, Subprogram 5, Proiect: 1917 Titlul temei „Biocompozite fotopolimerizabile cu umplutura de sticla pigmentata utilizate pentru restaurari fizionomice directe”	Director Proiect	2004-2006
23. Program MATNANTECH-CEEX, Subprogram S1, Proiect: 30 Titlul temei: “Nanomateriale si adezivi noi cu aplicatii de inalta performanta in medicina”	Director Proiect	2005-2008
24. Program RELANSIN-CEEX, Proiect: 2 Titlul temei: “Noi materiale si sisteme pentru protetica si implantologia dentara”	Director Proiect	2005-2008
25. Program MATNANTECH-CEEX, Proiect 56 Titlul temei: ”Biocompozite avansate bazate pe noi sisteme de monomeri armati cu nanoparticule si fibre de sticla cu aplicabilitate in stomatologie”	Executant	2006-2008
26. Program CEEX, Proiect 132 Titlul temei: “Noi biocompozite monomere bazate pe acizi polialchenoici modificati cu rasini si sticle superficial active cu aplicatii multiple in medicina”	Executant	2006-2008
27. Program MATNANTECH-CEEX, Proiect 87 Titlul temei: “Nanomateriale UV fotoreticulabile, multifunctionale cu proprietati speciale, pentru aplicatii decorative si dentare”	Responsabil proiect	2006-2008
28. Program MENER-CEEX, Proiect 761 Titlul temei: “Cercetari privind obtinerea unor combustibili si materii prime din surse regenerabile”	Responsabil proiect	2006-2008
29. Program VIASAN-CEEX, Proiect: 152, „Studiu clinic si experimental al unor factori privind incidenta, etiopatogenia si tratamentul neinvaziv al modificarilor de culoare dentara	Responsabil proiect	2006-2008
30. Program PN-II, Proiect 71-057 Titlul temei: “Realizarea de implanturi cu biocompatibilitate avansata prin utilizarea straturilor nanostructurate, ceramice, crescute electrochimic pe titan”	Responsabil proiect	2007-2010
31. ANCS, Program PN-II, Proiect 72-190 Titlul temei: “Biomateriale complexe cu grad avansat de specificitate utilizate in tratamentele endodontice”	Director de proiect	2008-2011
32. ANCS, Program PN-II, Proiect 72-192 Titlul temei: “Implante resorbabile utilizate in artroscopie realizate din biomateriale biomimetice”	Responsabil proiect	2008-2011
33. ANCS, Program PN-II, Proiect 72-158 Titlul temei: “Compozite avansate pentru implantologia dentara”	Responsabil proiect	2008-2011
34. ANCS, Program PN-II, Proiect 72-168 Titlul temei: “Biomateriale compozite bazate pe noi sisteme de monomeri fluorurati armati cu nano si microumpluturi bioactive cu proprietati anticariogenice remanente si adeziune superioara la tesuturile dure dentare”	CSI	2008-2011
35. Centrul National de Management Programme PN II – CO – PC Ctr.165/2012; Noi generatii de biomateriale pentru stomatologia cosmetica	Director Proiect	2012-2016
36. Centrul National de Management Programme PN II – CO – PC Ctr.189/2012 Noi biomateriale avansate, inteligente de tip giomer cu diverse aplicatii in stomatologie	CSI	2012-2016
37. UEFISCDI-PARTENERIATE IN DOMENIILE PRIORITARE; Program PN-II, Proiect 230/2014; Noi materiale compozite pe baza de polimeri biocompatibili si grafene pentru aplicatii dentare	Responsabil proiect	2014-2017
38. UEFISCDI-PARTENERIATE IN DOMENIILE PRIORITARE Program PN-II, Proiect 191/2014; Antiagregante plachetare naturiste in preventia primara cardio-vasculara	Responsabil proiect	2014-2017
39. UEFISCDI-PARTENERIATE IN DOMENIILE PRIORITARE; Program PN-II, Proiect 127/2014; Comportamentul celulelor mezenchimale orale in relatie cu un nou material compozit in terapia parodontala regenerativa moderna.	Responsabil proiect	2014-2017
40. UEFISCDI-PARTENERIATE IN DOMENIILE PRIORITARE; Program PN-II, Proiect 115/2014; Implanturi cranio-faciale personalizate obtinute prin prototipare inovativa 3D din materiale compozite ranforsate cu fibre de sticla	CSI	2014-2017
41. Program PNCI III, Proiect PN-III-P2-2.1-BG-2016- 0204, 112BG/ 2016,	Responsabil	2016-2018

Optimizarea procesului de obținere a unor chelați ai aminoacizilor în vederea obținerii unor materiale cu noi aplicații.	proiect	
42. Program PNCDI III, Proiect PN-III-P2-2.1-BG-2016- 0335, 28 BG/2016 , Dezvoltarea unor produse funcționale nutraceutice cu aplicații în alimentația sănătoasă și medicina regenerativă, obținute prin utilizarea unor tehnologii inovatoare și sustenabile,	Responsabil proiect	2016-2018.
43. Program PNIII, PN-III-P2-2.1-PED-2016-1907 , Proiect 101 PED/2017, Noi materiale de cimentare cu grafene utilizate în stomatologie,	CSI	2017-2018
44. Program PNIII, PN-III-P2-2.1-PED-2016-1415, Proiect 142PED/ 2017 , Terapia fotodinamica cu fotosensibilizatori naturali utilizati in controlul biofilmului oral,	Responsabil proiect	2017-2018
45. PN-III-P2-2.1-PED-2016-1936, 253PED/2017 , Dezvoltarea unui material compozit inovativ, ranforsat cu fibre de sticla, pentru aplicatii CAD/CAM in medicina dentara,	CSI	2017-2018
46. PN-III-P2-2.1-PED2019-2953, 334PED/2020 , The new materials for minimally invasive treatment for the incipient caries and white spots	Director de proiect	2020-2022
47. PN-III-P2-2.1-PED-2019-3739, 565PED/2020 , Development of some innovative products from advanced materials (mortars), used in the rehabilitation of heritage buildings	CSI	2020-2022