

INFORMATII PERSONALE

Cosmin Giorgian Ungureanu

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Sexul M | Nationalitatea Romana

EXPERIENTA PROFESIONALA

14.01.2019 - Prezent

Cercetator in automatica, calculatoare si electronica aplicata

Institutul National de Cercetare – Dezvoltare pentru Tehnologii Criogenice si Izotopice, Ramnicu Valcea, Romania

- testarea si caracterizarea celulelor Li-ion si post litiu (spectroscopie de impedanta electrochimica, voltametrie ciclica, cicluri de incarcare / descarcare);
- elaborare lucrari stiintifice;
- sudura cu ultrasunete pentru realizarea celulelor de tip pouch;
- dezvoltarea de noi protocoale in testarea celulelor Li-ion si post litiu;
- autor si co-autor al unor lucrari stiintifice publicate in reviste de specialitate cotate ISI si BDI;
- participare la conferinte nationale si internationale.

Tipul sau sectorul de activitate Cercetare – dezvoltare

02.06. 2014 – 11.01.2019

Inginer

SC VILMAR SA, Industriilor nr.10, 240445, Ramnicu Valcea – Romania

- organizarea activitatilor in cadrul atelierului de debitare probe;
- organizarea activitatilor in cadrul atelierului de uzinare probe pentru incercari mecanice;
- organizarea inspectiilor din cadrul departamentului de incercari mecanice;
- organizarea inspectiilor din cadrul departamentului de coroziune, metalografie si duritati;
- introducerea in sistemul informatic a valorilor obtinute;
- intocmirea rapoartelor de incercari mecanice, duritati, metalografii si coroziuni;
- verificare standarde si specificatii;
- utilizarea diferitelor AMC-uri (subler, micrometru, rugozimetru);
- intocmirea documentelor de calitate (proceduri, instructiuni);
- emiterea certificatelor de calitate (3.1, 3.2);
- avansarea in sistemul informatic a fiselor de urmarire;
- intocmirea programelor pentru liniile de tratament termic (normalizare, austenitizare, calire - revenire, detensionare);
- buna functionare a liniei automatizate.

Tipul sau sectorul de activitate Industrie

17.10.2011 – 13.03.2014

Inginer

SC VILMAR SA, Industriilor nr.10, 240445, Ramnicu Valcea – Romania

- instalarea sistemelor de operare, soft-uri;
- intretinerea echipamentelor IT;
- administrarea licentelor software ale companiei;
- mentenanta: laptop-uri, pc-uri, componente IT, dispozitive periferice;
- IBM Lotus Mail;
- utilizarea Outlook;
- cunostiinte: TCP / IP, DNS;
- securitatea retelei;
- sertizari;
- utilizare BAN IV; BAN X;
- masini virtuale.

Tipul sau sectorul de activitate Industrie

01.02.2011 – 14.10.2011

Inginer

SC UNCLE SAM SRL, Raureni, 245900, Ramnicu Valcea – Romania

- intocmirea proiectelor pentru sisteme de Securitate antifractie si video;
- coordonarea departamentului service;
- gestionarea echipamentelor companiei.

Tipul sau sectorul de activitate Industrie

EDUCATIE SI FORMARE

Oct. 2019 – prezent

Scoala Doctorala de Inginerie Energetica

Universitatea Nationala de Stiinta si Tehnologie Politehnica Bucuresti / Facultatea de Energetica

- dezvoltarea de noi materiale si arhitecturi de electrozi hibridi;
- optimizarea proceselor de realizare si dezvoltare de noi protocoale de testare;
- dezvoltarea si optimizarea celulelor de tip pouch LNMO/grafit;
- dezvoltarea si optimizarea celulelor de tip pouch NMC811/grafit;
- testarea celulelor Li-ion la temperaturi diferite;
- formatarea celulelor Li-ion la temperaturi diferite;
- testarea electrolitilor prin adaugare de aditivi;
- evaluarea stabilitatii celulelor Li-ion.

Oct. 2010 – Iunie 2012

Masterat

Universitatea din Craiova / Facultatea de Automatica, Calculatoare si Electronica

- Automatica Sistemelor Complexe

Oct. 2006 – Iulie 2010

Licenta

Universitatea din Craiova / Facultatea de Automatica, Calculatoare si Electronica

- Automatica si Informatica Aplicata

Sept. 2002 – Iulie 2006

Colegiul Economic, Rm . Valcea

- Matematica - Informatica

COMPETENTE PERSONALE

Limba(i) materna(e) Romana

Alte limbi straine cunoscute

	INTELEGERE		VORBIRE		SCRIERE
	Ascultare	Citare	Participare la conversatie	Discurs oral	
Engleza	B1	B1	B1	B1	B1

Competente dobandite la locul de munca

- buna intelegere a proceselor de dezvoltare si integrare a celulelor Li-ion.
- bune abilitati de comunicare.

Competenta digitala

AUTOEVALUARE				
Procesarea informatiei	Comunicare	Creare de continut	Securitate	Rezolvarea de probleme
U. experimentat	U. experimentat	U. experimentat	U. experimentat	U. experimentat

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimentat

Scrieti denumirea certificatului.

Permis de conducere B

 Diplome obtinute ET -2 control distructiv
CCNA 1

Specializari si calificari 2022 – Training, Kronacher Impedanztage KIT 2022 – at Bildungszentrum Kloster Banz, Germania

INFORMATII SUPLIMENTARE

ANEXE

- ANEXA 1 Lucrări științifice publicate in reviste de specialitate;
- ANEXA 2 Brevete de inventie, Comunicari stiintifice prezentate la conferinte nationale si internationale;
- ANEXA 3 Proiecte de cercetare-dezvoltare-inovare;
- ANEXA 4 Premii obtinute.

ANEXA 1**Lucrări științifice publicate in reviste de specialitate cotate ISI**

1. Shubhadeep Pal, Xiaodong Lin, Petru Apostol, **Cosmin Ungureanu**, Da Tie, Vasudeva Rao Bakuru, Darsi Rambabu, Nicolo Campagnol, Andrii Kachmar, Claude Poleunis, Gabriella Barozzino-Consiglio, Mihaela Buga, and Alexandru Vlad, *Ternary Salt-Solvent Electrolytes for 5 V-Class Anode-less Li-Metal Batteries*, ACS Energy Lett. 2024, 9, 4399–4407, **IF=22, Q1**.
2. Raheleh Azmi, Fredrik Lindgren, Killian Stokes-Rodriguez, Mihaela Buga, **Cosmin Ungureanu**, Tom Gouveia, Ida Christensen, Shubhadeep Pal, Alex Vlad, Alix Ladam, Kristina Edström, Maria Hahlin, *An XPS study of electrolytes for Li-ion batteries in full-cell LNMO vs. Si/graphite*, ACS Applied Materials & Interfaces, 2024, 16, 34266–34280, **IF=9.5, Q1**.
3. Teddy Tite, **Cosmin Ungureanu**, Mihaela Buga, Ionel Stavarache, Elena Matei, Constantin Catalin Negrița, Lucian Trupina, Adnana Spinu-Zaulet, Aurelian Catalin Galca „Pulsed laser deposited V2O3 thin-films on graphene/aluminum foil for micro-battery applications” Journal of Electroanalytical Chemistry 2023, 933, p. 117290, **IF=4.5, Q1**.
4. Mihaela Ramona Buga, Adnana Alina Spinu Zaulet, **Cosmin Ungureanu**, Raul Augustin Mitran, Eugeniu Vasile, Mihaela Florea, Florentina Neatu „Carbon-Coated SiO₂ Composites as Promising Anode Material for Li-Ion Batteries” Molecules, 2021, 26(15), p. 4531-4545, **IF=4.6, Q2**.
5. Alexandru Ciocan, **Cosmin Ungureanu**, Alin Chitu, Elena Carcadea, George Darie „Electrical Longboard for Everyday Urban Commuting”, Sustainability 2020, 12(19), 8091, **IF=3.9, Q3**.

Lucrări științifice publicate în reviste de specialitate indexate ISI

1. **Cosmin Ungureanu**, Adina Melinte, Adnana Spînu-Zăuleț, Alexandru Rizoiu, Sébastien Fantini, Christian Fink Elkjær, Mihaela Buga, Horia Necula, *Enhancing the Electrochemical Performance of High-Voltage Materials in Li-Ion Cells Using Additive-Based Electrolytes*, Scientific Bulletin Series C Electrical Engineering and Computer Science, (under review).

Lucrări științifice publicate in reviste de specialitate cotate BDI

2. Rodica-Cristina NEGROIU, Cristina-Ioana MARGHESCU, Mihaela Buga, **Cosmin Ungureanu**, Irina-Bristena BACIS, Madaliana-Irina BURCEA, Vasile Madalin MOISE, *High-voltage supercapacitors, a viable alternative to conventional electrical energy storage devices*, EMERG: Energy. Environment. Efficiency. Resources. Globalization, 2023, 9(2): 78-95; DOI: 10.37410/EMERG.2023.2.05. ISSN 2668-7003, ISSN-L 2457-5011, Editura AGIR, Romania.
3. Rodica Negroiu, Paul Svasta, I. M. I. Burcea, **Cosmin Ungureanu** and M.R. Buga, *Investigations regarding the increase of the nominal voltage of the supercapacitors*, 2022, IEEE 28th International Symposium for Design and Technology in Electronic Packaging (SIITME), 201-204.

ANEXA 2

Brevete de inventie

1. Spinu Zaulet Adnana, Buga Mihaela-Ramona, **Ungureanu Cosmin**, Chitu Alin Mugurel, Vaireanu Danut-Ionel, Varlam Mihai, „*Celule electrochimice Li-ion de tip punguta cu catod pe baza de oxizi stratificati bogati in nichel folositi in conjunctie cu sisteme de electroliti cu grad ridicat de siguranta termica*”, **A/00503/14.09.2023**
2. C. Fleaca, F. Dumitrache, L. Gavrilă-Florescu, E. Goncarenco, M. Scarisoreanu, Mihaela-Ramona Buga, **Cosmin Ungureanu** / INFLPR – ICSI „*Procedeu de obtinere de nanocompozite din Oxid de Grafene Redus si nanoparticule Si-Ge pentru anozii ai bateriilor reincarcabile cu ioni de Li*”, **A/00851/20.12.2023**
3. Teddy Tite, Mihaela Buga, Ionel Stavarache, **Cosmin Ungureanu**, Adnana Spinu-Zaulet, George Stan, Elena Matei, Constantin Negrița, Hajar Ghannam, Aurelian Galca, Cristina Bartha, Andrei Galatanu, Marian Lazar / INCDFM – ICSI, „*Filme subtiri de dioxid de vanadiu VO₂(B) fara liant, obtinute direct pe foile de aluminiu prin depunere laser pulsata ca si catod de baterie si metoda de preparare a acestora*”, **A/0065 20.10.2022**.
4. Claudiu Fleaca, Florian Dumitrache, Lavinia Gavrilă-Florescu, Marius Dumitru, E. Goncarenco, M. Scarisoreanu, Mihaela Buga, **Cosmin Ungureanu** / INFLPR – ICSI, „*Procedeu de obtinere de nanoparticule Ge-Si ca materiale active pentru anozii ai bateriilor reincarcabile cu ioni de Li*”, **A100455/28.07.2022**.

Comunicari stiintifice prezentate la conferinte nationale

1. **Cosmin Ungureanu**, Adnana Spinu-Zaulet, Radu Andrei, Alin Chitu, Alecsandra Sobolu, Mihaela Buga, *Materiale pe baza de Silice pentru anozii de inalta performanta in bateriile Litiu – ion*, Simpozionul National de Chimie, Editia a XIII-a, 27 Noiembrie 2021, Craiova, pp. 33-34, Romania.

Comunicari stiintifice prezentate la conferinte internationale

1. **Cosmin Ungureanu**, Alexandru Rizoiu, Alin Chitu, Adnana Spinu Zaulet, Noelia Cortés Félix, Sébastien Fantini, Simon Clark, Mihaela Buga, *Challenges, approaches, and electrochemical behavior for high-voltage spinel cathode LiNi_{0.5}Mn_{1.5}O₄ in pouch cells with carbonate-based electrolytes*, Scientific Symposium on Gen3b Batteries, 28.11 -02.12, 2023, Barcelona, Spania.
2. **Cosmin Ungureanu**, Narvin Neehall, Alexandru Rizoiu, Alin Chitu, Adnana Spinu Zaulet, Noelia Cortés Félix, Sébastien Fantini, Alexandru Vlad, Simon Clark, Mihaela Buga, *Cycling Stability of High-Voltage Spinel Cathode LiNi_{0.5}Mn_{1.5}O₄ in Lithium-Ion Pouch Cells Employing Carbonate-Based Electrolytes*, The 24th International Conference “New Cryogenic and Isotope Technologies

- for Energy and Environment” - EnergEn 2023, 18-20 Octombrie, 2023, Book of abstract pp: 89-91, ISSN: 2601-9965, Baile Govora, Romania.
3. **Cosmin Ungureanu**, Adnana Spinu-Zaulet, Alin Chitu, Raul-Augustin Mitran, Eugeniu Vasile, Mihaela Buga, *C-coated SiO₂ materials as high-performance lithium-ion battery anodes*, FOREN 2022 WEC CENTRAL & EASTERN EUROPE REGIONAL ENERGY FORUM, Energy Transition Needs Regional Cooperation, 16th Edition, 12-15 Iunie 2022, Vox Maris Grand Resort, Costinesti, Romania.
 4. **Cosmin Ungureanu**, Adnana Spinu-Zaulet, Radu Andrei, Alin Chitu, Alecsandra Sobolu, Raul-Augustin Mitran, Eugeniu Vasile, Mihaela Buga, *Silica – Based Materials as High-Performance Lithium-Ion Battery Anodes*, The XXIIIrd International Conference “New Cryogenic and Isotope Tehnologies for Energy and Environment”, EnergEn2021, 26-29 Octombrie, Conferinta Online, Lithium-ion Battery Technology, pp. 123-124, Romania.
 5. Alexandru RizoIU, Sarah Aboubakr, **Cosmin Ungureanu**, Adnana Spînu – Zăuleț, Mihaela Buga, Alexandru Vlad, Dănuț-Ionel Văireanu, *Comparative Study on Different Electrolytes in Anode-free Na Metal Cell Design Configuration*, 23rd Romanian International Conference on Chemistry and Chemical Engineering, September 4 – 7, 2024, Constanța - Mamaia, ROMANIA.
 6. Aboubakr Sarah, RizoIU Alexandru, Spinu-Zaulet Adnana, **Cosmin Ungureanu**, Buga Mihaela, Vlad Alexandru, *Towards Long-Lasting Anode-Free Sodium Batteries: A Study on the Effect of the Electrolytes on the Plating/Stripping process*, 23rd Romanian International Conference on Chemistry and Chemical Engineering, September 4 – 7, 2024, Constanța - Mamaia, ROMANIA.
 7. Radu Dorin Andrei, Luisa Roxana Mandoc, **Cosmin Ungureanu**, Mihaela Ramona Buga, *Matching Porous Anode Materials and Ion-Conducting Polymer Electrolyte to Enhance the Performance of SSBs*, 23rd Romanian International Conference on Chemistry and Chemical Engineering, September 4 – 7, 2024, Constanța - Mamaia, ROMANIA.
 8. Luisa Roxana Mandoc, **Cosmin Ungureanu**, Radu Dorin Andrei, Mihaela Ramona Buga - *Integration and testing of synthesized materials based on sulfur in Li sulfur batteries*, International Conference 2024 Spring Meeting of the European Materials Research Society (E-MRS), 26 Mai - 01 Iunie 2024, Strasbourg, Franta.
 9. Teddy Tite, **Cosmin Ungureanu**, Mihaela Buga, Ionel Stavarache, Elena Matei, Constantin Catalin NegriIa, Lucian Trupina, Andrei Galatanu, Adnana Spinu-Zaulet, Aurelian Catalin Galca, *Pulsed Laser Deposited V₂O₃ Thin-Films On Graphene/Aluminum Foil for Micro-Battery Applications*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, oct 18-20, 2023, Book of abstract pp: 68-71, ISSN: 2601-9965, Baile Govora, Romania.
 10. Radu Dorin Andrei, **Cosmin Ungureanu**, Ciprian-Ghiorghita Iacob, Luisa Roxana Mandoc, Irina Petreanu, Soha Aldroubi, Nicolas Louvain, Julian Richard Tolchard, *Solid Polymer Electrolyte for High-Performance Lithium Batteries*, The 24th International Conference “New

- Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, oct 18-20, 2023, Book of abstract pp: 81-82, ISSN: 2601-9965, Baile Govora, Romania.
11. Radu Dorin Andrei, **Cosmin Ungureanu**, Ciprian-Ghiorghita Iacob, Thomas Cacciaguerra, Jeremy Rodriguez, *SBA-15-Based Anodes and Polymer Electrolytes for Solid-State Batteries*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, oct 18-20, 2023, Book of abstract pp: 87-88, ISSN: 2601-9965, Baile Govora, Romania.
12. Adnana Spinu-Zaulet, **Cosmin Ungureanu**, Mihaela Buga, Alin Chitu, Danut Ionel Vaireanu, *The Influence of Si-Containing Electrolyte Additive on the Cyclic Stability of NMC811/Graphite Lithium Ion Battery*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn n 2023, oct 18-20, 2023, Book of abstract pp: 92, ISSN: 2601-9965, Baile Govora, Romania.
13. Adnana Spinu-Zaulet, Mihaela Buga, **Cosmin Ungureanu**, Alexandru Rizoiu, Alin Chitu, *Electrochemical Performance of LiFePO₄ Cathode in Li-Ion Pouch Cells*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, oct 18-20, 2023, Book of abstract pp: 93, ISSN: 2601-9965, Baile Govora, Romania.
14. Luisa Roxana Mandoc, Violeta Niculescu, Amalia Soare, Raul Mitran, Athanosios Tiliakos, Stanica Enache, Marius Constantinescu, **Cosmin Ungureanu**, Mihaela Ramona Buga, *Synthesis and Characterization of New Active Materials Based on Sulf with Applications for Li-S Batteries*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, oct 18-20, 2023, Book of abstract pp: 94, ISSN: 2601-9965, Baile Govora, Romania.
15. Luisa Roxana Mandoc, Violeta Niculescu, Amalia Soare, Athanosios Tiliakos, **Cosmin Ungureanu**, Mihaela Ramona Buga, Radu Dorin Andrei, *Solid State Batteries Performances Influenced by Various LifePO₄ Compositions*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, 18-20 Octombrie, 2023, Book of abstract pp: 95-96, ISSN: 2601-9965, Baile Govora, Romania.
16. Narvin Neehall, Adnana Spinu Zaulet, **Cosmin Ungureanu**, Alexandru Rizoiu, Mihaela Buga, *Analysis of the Evolved Gases in a Multi-Layer Lithium-Ion Pouch Cell After Extensive Cycling Via Mass Spectrometry*, The 24th International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” - EnergEn 2023, 18-20 Octombrie, 2023, Book of abstract pp: 105-108, ISSN: 2601-9965, Baile Govora, Romania.
17. Rodica Negroiu, Madalina Ioneci, Paul Svasta, Cristina Marghescu, Mihaela Buga, **Cosmin Ungureanu**, Adnana Spinu Zaulet, *Comparison between the Electrical Parameters of High Voltage Supercapacitor Cells*, IEEE 29th International Symposium for Design and Technology in Electronics Packaging - Paper ID: 72 (UPB), oct 18-20 2023, Craiova, Romania.

18. Adnana Spinu Zaulet, Mihaela Buga, **Cosmin Ungureanu**, Danut Ionel Vaireanu, *Enhanced electrochemical performance of NMC811/Graphite lithium-ion cells by adding tris(trimethylsilyl)borate as electrolyte additive*, European Materials Research Society (E-MRS) 2023, 18-21 Septembrie, Varsovia, Polonia.
19. Radu Dorin Andrei, Ciprian Iacob, Luisa Roxana Mandoc, Irina Petreanu, **Cosmin Ungureanu**, Soha Aldroubi, Nicolas Louvain, Julian Richard Tolchard, *Porous anode materials and solid polymer electrolyte for improving the performances of SSBs*, European Materials Research Society (E-MRS) 2023, 18-21 septembrie, Varsovia, Polonia.
20. Adnana Spinu-Zaulet, Alexandru Rizoiu, **Cosmin Ungureanu**, Mihaela Buga, Danut Ionel Vaireanu, *Tris(trimethylsilyl) borate as highly effective electrolyte additive for NMC811/Graphite lithium-ion cells*, HYDRA International Workshop 2023, 26.06 – 01.07.2023, Banksalen – Trodheim, Norvegia.
21. Luisa Roxana Mandoc, Violeta Niculescu, Amalia Soare, Raul Mitran, **Cosmin Ungureanu**, Mihaela Ramona Buga, *Synthesis of new active materials based on sulfur for new generations of high-performance batteries*, The 15th International Symposium on Systems with Fast Ionic Transport (ISSFIT-15), 18-22 Aprilie, 2023, Dubrovnik, Croatia
22. Radu Dorin Andrei, Ciprian Iacob, **Cosmin Ungureanu**, *New anods and polymeric membranes electrolytes for high-performance lithium batteries*, The 15th International Symposium on Systems with Fast Ionic Transport (ISSFIT-15), 18-22 Aprilie, 2023, Dubrovnik, Croatia.
23. Rodica Negroiu, Paul Svasta, Mihaela Buga, **Cosmin Ungureanu**, *Investigations regarding the increase of the nominal voltage of the supercapacitors*, 2022 IEEE 28th International Symposium for Design and Technology in Electronic Packaging (SIITME), 26-29 Octombrie 2022, Bucuresti, Romania.
24. Ciprian Iacob, Radu Andrei, **Cosmin Ungureanu**, Elena Carcadea, *Solid polymer composite electrolytes for all solid state rechargeable lithium batteries*, XVIIIth International Symposium Priochem, 26-28 octombrie, 2022, Book of abstracts No. 18/2022, pg. 25, Bucuresti, Romania.
25. Rodica Negroiu, Paul Svasta, Irina Madalina Ioneci (Burcea), **Cosmin Ungureanu**, Mihaela Buga, *Electrochemical Impedance Spectroscopy on Supercapacitors Structures*, ESTC 2022 Conference - Electronics Packaging Society of IEEE, 13-16 Septembrie 2022, Sibiu, Romania.
26. Alexandru Rizoiu, **Cosmin Ungureanu**, Alin Chitu, Adnana Spinu – Zaulet, Mihaela Buga, *The electrochemical behavior of multifunctional electrolyte additives on high voltage cathodes in lithium – ion batteries*, 22nd Romanian International Conference on Chemistry and Chemical Engineering (RICCCE), 7-9 septembrie 2022, Sinaia, Romania.
27. Teddy Tite, **Cosmin Ungureanu**, Mihaela Buga, Hajar Ghannam, O. Elkhouja, Adnana Spinu-Zaulet, I. Stavarache, Elena Matei, George Stan, Constantin Negrila, Cristina Bartha, Aurelian Galca, Andrei Galatanu, M. Y. Zaki, M. Baibarac, *Vanadium oxides thin films by physical vapor deposition and electrodeposition for energy storage applications*,

- 20th International Balkan Workshop on Applied Physics and Materials Science, 12-15 Iulie, 2022, Constanta, Romania.
28. Mihaela Buga, **Cosmin Ungureanu**, Alin Chitu, Alexandru Rizoiu, Adnana Spinu-Zaulet, Simon Clark, *HYDRA – Challenges and opportunities in developing, sustainable, next-generation battery materials in Europe*, FOREN 2022 WEC CENTRAL & EASTERN EUROPE REGIONAL ENERGY FORUM, Energy Transition Needs Regional Cooperation, 16th Edition, 12-15 Iunie 2022, Vox Maris Grand Resort, Costinesti, Romania.
29. Claudiu Fleaca, Florian Dumitrache, Valentin Craciun, Marius Dumitru, Lavinia Gavrila-Florescu, **Cosmin Ungureanu**, Mihaela Buga, *Laser-pyrolysis Ge-Si based nanoparticles and their composites with reduced Graphene oxide for Li-ion battery anodes*, 2022 EMRS Spring Meeting Conferință online, 30 Mai -03 Iunie 2022.
30. Hajar Ghannam, O. Elkhouja, **Cosmin Ungureanu**, Teddy Tite, Mihaela Buga, Adnana Spinu-Zaulet, Elena Matei, Constantin Negrila, George Stan, Aurelian Galca, A. Chahboun, *Porous cobalt oxides nanostructures electrodeposited on graphene electrode for energy storage applications*, E-MRS 2022 Spring Meeting, Symposium J (Energy Materials): symposium J - Future electrochemical energy storage materials: from nanoscience to device integration and real environment application, Conferință online, 30 Mai–03 Iunie 2022.
31. Teddy Tite, Hajar Ghannam, **Cosmin Ungureanu**, Mihaela Buga, Adnana Spinu-Zaulet, I. Stavarache, O. Elkhouja, Elena Matei, George Stan, M. Y. Zaki, Constantin Negrila, Andrei Galatanu, Aurelian Galca, Cristina Bartha, M. Baibarac, A. Chahboun, *Vanadium oxides/zinc oxide thin films for energy storage applications: study of their combination and synergy with graphene*, E-MRS 2022 Spring Meeting, Symposium J (Energy Materials): symposium J - Future electrochemical energy storage materials: from nanoscience to device integration and real environment application, 30 Mai–03 Iunie 2022.
32. Mihaela Buga, Adnana Spinu-Zaulet, **Cosmin Ungureanu**, Radu Andrei, Alin Chitu, Mihai Varlam, Simon Clark, *Hybrid Power-Energy Electrodes for Next Generation Lithium-Ion Batteries – HYDRA*, The 23rd International “New Cryogenic and Isotope Technologies for Energy and Environment” EnergEn2021, 26-29 Octombrie 2021, Conferință Online, Lithium-ion Battery Technology, pp. 114-115.
33. Claudiu Fleaca, Florian Dumitrache, Mihaela Buga, Adnana Spinu-Zaulet, **Cosmin Ungureanu**, S. Enache, A.-M. Banici, E. Dutu, Marius Dumitru, *Laser pyrolysis SnO_x nanoparticles – characterization and testing for Li-ion battery anodes*, The 23rd International “New Cryogenic and Isotope Technologies for Energy and Environment” EnergEn2021, Lithium-ion Battery Technology, pp. 120, 26-29 Octombrie 2021, Baile Govora, Romania.
34. Hajar Ghannam, Teddy Tite, A. Chahboun, Mihaela Buga, **Cosmin Ungureanu**, Adnana Spinu-Zaulet, Aurelian Galca, M.Y. Zaki, Elena Matei, I. Stavarache, Constantin Negrila, George Stan, Cristina Bartha, M. Baibarac, *Advanced electrode based on zinc oxide-graphene for sodium-ion battery: Influence of morphology and doping*, 23rd International

- Conference “New Cryogenic and Isotope Technologies for Energy and Environment” EnergEn 2021, 26–29 Octombrie 2021, Baile Govora, Romania.
35. Adnana Spinu-Zaulet, Mihaela Buga, **Cosmin Ungureanu**, Danut Ionel Vaireanu, *Tris(trimethylsilyl) borate as an Efficient Electrolyte Additive for Nickel-Rich NMC811 Cathode in Lithium-Ion Battery*, The 23rd International “New Cryogenic and Isotope Technologies for Energy and Environment” EnergEn2021, Lithium-ion Battery Technology, pp. 121-122, 26-29 Octombrie 2021, Baile Govora, Romania.
36. Teddy Tite, Hajar Ghannam, Mihaela Buga, **Cosmin Ungureanu**, Adnana Spinu-Zaulet, I. Stavarache, Elena Matei, George Stan, Constantin Negrila, Aurelian Galca, Cristina Bartha, M. Baibarac, *Doped vanadium oxide films by physical vapour deposition method for energy storage application*, 23rd International Conference “New Cryogenic and Isotope Technologies for Energy and Environment” EnergEn 2021, , 26–29 Octombrie 2021, Baile Govora, Romania.
37. Florian Dumitrache, Claudiu Fleaca, D. Craciun, Lavinia Gavrila-Florescu, E. Goncarencu, I.P. Morjan, Mihaela Buga, Adnana Spinu-Zaulet, **Cosmin Ungureanu**, G. Prodan, *Composite nanoparticles containing silicon and tin phases synthesized by Laser pyrolysis for Li-ion battery anodes*, E-MRS Fall Meeting 2021, 20 – 23 Septembrie, Conferință Online.
38. Teddy Tite, Mihaela Buga, **Cosmin Ungureanu**, Adnana Spinu-Zaulet, I. Stavarache, Elena Matei, George Stan, Constantin Negrila, Aurelian Galca, Cristina Bartha, M. Baibarac, *Synthesis of vanadium oxide/graphene thin films by physical vapor deposition method for high performance batteries*, E-MRS 2021 Fall Meeting, Symposium B: „Battery and Energy Storage Devices: From Materials to Eco-Design”, 20–23 Septembrie 2021, Conferință online (prezentare poster, premiata cu “Best Poster Award”).
39. Mihaela Buga, Adnana Spinu-Zaulet, **Cosmin Ungureanu**, Eugeniu Vasile, *Eco-friendly preparation route of C-coated SiO₂ nanoparticles as anode material for Li-ion batteries*, E-MRS Spring Meeting 2021, 31 Mai – 03 Iunie, Conferință online.
40. Adnana Spinu-Zaulet, Mihaela Buga, **Cosmin Ungureanu**, Danut Ionel Vaireanu, *Boron based additives for electrolytes in lithium-ion batteries*, E-MRS Spring Meeting 2021, 31 Mai – 03 Iunie, Conferință online.
41. Rodica Negroiu, Paul Svasta, Mihaela Buga, Adnana Spinu-Zaulet, **Cosmin Ungureanu**, *Realization and Testing of Electrodes for Supercapacitors based on MOFs and Activated Carbon*, IEEE 27th International Symposium for Design and Technology in Electronic Packaging (SIITME), 2021.

ANEXA 3

Proiecte de cercetare-dezvoltare-inovare

1. Proiect **PN 23 15 02 01**: *Implementarea tehnologiilor de stocare pe baterii post Li: noi perspective privind tranzitia catre o noua generatie de baterii pe baza de sodiu si sulf - **BatNaS*** , perioada de derulare: 2023-2026, statut: membru in echipa de cercetare.
2. Proiect **PN 23 15 02 02**: *Contributii privind realizarea unui sistem de stocare a energiei de tip **Li-ion prismatic**, destinat aplicatiilor speciale - **PrisPEC***, perioada de derulare: 2023-2026, statut: membru in echipa de cercetare.
3. Proiect **760113 / 23.05.2023, 202**: *New insights towards next-generation of Na-ion/metal batteries – **ToNaBatt***“, perioada de derulare 2023-2026, statut in echipa: membru echipa de implementare.
4. Proiect **PN-3-P3-428/23.04.2021**: *Stabilizarea anozilor de conversie cu electroliti ionici compoziti moleculari solizi pentru baterii Litiu ion in stare solida - **SMICE-L***, 2021 – 2024 statut: membru in echipa de cercetare.
5. Proiect – **875527**: *Hybrid power-energy electrodes for next generation lithium-ion batteries - **HYDRA***, Tip proiect: HORIZON 2020 Framework Programme, Call: H2020-LC-BAT-2019, perioada de derulare 2020-2024, statut: membru in echipa de cercetare.
6. Proiect **PN-3-P3-428/23.04.2021**: *Stabilizarea anozilor de conversie cu electroliti ionici compoziti moleculari solizi pentru baterii Litiu ion in stare solida - **SMICE-L***, 2021 – 2024 statut: membru in echipa de cercetare.
7. Proiect **PN-III-P3-3.6-H2020-2020-0183** – *Electrozi hibridi cu performanta mixta de energie si putere pentru bateriile litiu-ion de generatie viitoare, 2020-2023*, statut: membru in echipa de cercetare.
8. Proiect **PD 26/2020**, cod: PN-III-P1-1.1-PD-2019-0555: *Dezvoltare de electroliti cu aditivi pe baza de borati pentru imbunatatirea performantelor celulelor Li-ion de tip pouch - **BeLion***.Tip proiect: P1 - Dezvoltarea sistemului national de cercetare-dezvoltare, Proiecte de cercetare postdoctorala, perioada de derulare: 01/09/2020 – 31/08/2022, statut in echipa: membru in echipa de cercetare.
9. Proiect **PED472/2020** cod: PN-III-P2-2.1-PED-2019-4519. *Dezvoltarea compusilor dopati de oxid de vanadiu/grafene pentru baterii si supercapacitori ultra-performanti prin depunere fizica de vapori pentru aplicatii durabile si ecologice de stocare a energiei - **VANABATSUP***. Tip proiect P2 - Cresterea competitivitatii economiei romanesti prin CDI, Proiect experimental demonstrativ, (ICSI partener), perioada de derulare 2020-2022, statut in echipa: membru in echipa de cercetare.
10. Proiect **PED 304/2020**, cod: PN-III-P2-2.1-PED-2019-4951. *Nanocompozite performante pentru anodi ai bateriilor cu ioni de Li bazate pe nanoaliaje de Sn, Si, Ge si nanocornuri de carbon uniperete (SWCNHs)/nanofoi de oxid redus de grafena (RGO) - **NANOTINSIGECARBOANOD***. Tip proiect P2 - Cresterea competitivitatii economiei romanesti prin CDI, Proiect experimental demonstrativ, (ICSI partener), perioada de derulare 2020-2022, statut: membru in echipa de cercetare.

11. Program nucleu "Dezvoltare de tehnologii pentru tranziția energetică și impact asupra mediului – Aducând știința în scop societal – „**ICSI-4EE**” :
- Cod proiect: **PN 19 11 02 03** - Configurație hibridă Supercapacitor-Tehnologie Litiu-ion cu performanță mixtă de energie și putere; perioada de derulare: 2019-2022, statut: membru în echipa de cercetare.
- Cod proiect: **PN 19 11 02 04** - Dezvoltare de electroliți solizi cu conductivitate ultra-ridică și electrozi cu stabilitate ciclică îmbunătățită pentru baterii solid-state; perioada de derulare: 2019-2022, statut: membru în echipa de cercetare.
12. Proiect **PN-III-P1-1.1-TE-2019-1734**: *Electroliti de înaltă performanță pe baza de Gel Polimeric și Lichid Ionic pentru Baterii Litiu-Metal în Stare Solidă - GeLiBAT*. Tip proiect: P1 - Dezvoltarea sistemului național de cercetare-dezvoltare, Proiecte de cercetare pentru stimularea tinerelor echipe independente (TE), statut: membru în echipa de cercetare.

ANEXA 4

Premii obținute

1. **Medalie de aur și Diplomă de onoare** - International Exhibition INVENTCDR, 4th edition, 14-16.09.2023, Deva, România - Teddy Tite, Mihaela-Ramona Buga, Ionel Stavarache, **Cosmin Ungureanu**, Adnana Alina Spînu-Zăuleț, George E. Stan, Elena Matei, Constantin Cătălin Negrilă, Hajar Ghannam, Aurelian Cătălin Gâlcă, Cristina Bartha, Andrei Galatanu, Marian Lazăr, *Binder-free vanadium dioxide VO₂(B) thin films directly grow on Aluminium foil by pulsed laser deposition as battery cathode and preparation method thereof - A00665/2022*.
2. **Medalia de argint și Diplomă** European Exhibition of Creativity and Innovation - Euroinvent 2023, 13.05.2023, Iași, România, Teddy Tite, Mihaela-Ramona Buga, Ionel Stavarache, **Cosmin Ungureanu**, Adnana Alina Spînu-Zăuleț, George E. Stan, Elena Matei, Constantin Cătălin Negrilă, Hajar Ghannam, Aurelian Cătălin Gâlcă, Cristina Bartha, Andrei Galatanu, Marian Lazăr, *Binder-free vanadium dioxide VO₂(B) thin films directly grow on Aluminium foil by pulsed laser deposition as battery cathode and preparation method thereof - A00665/2022*.

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Semnatura:

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