



## Cristina Postolachi

**Cetățenie:** moldoveană , română **Data nașterii:** 02/04/1995 **Gen:** Feminin

**Număr de telefon:** (+40) 744265541 **E-mail:** [tina.postolaki@gmail.com](mailto:tina.postolaki@gmail.com)

**E-mail:** [cristina.postolachi@student.uaic.ro](mailto:cristina.postolachi@student.uaic.ro) **Skype:** kristina.postolaki

**Acasă:** Strada Fundac Alexandru cel Bun, Ap. 4, Bl. C1, 707410 Valea Lupului, Iasi (România)

### POSTUL VIZAT

#### ACS – asistent cercetare științifică

- poziția 25 în statul de funcțiuni, Universitatea "Alexandru Ioan Cuza" din Iasi, Observator astronomic, Laborator de astronomie și astrofizică, (RA-06, RECENT AIR) - Domeniul fundamental de cercetare: Matematică și Științe ale Naturii; Domeniul Științific: Fizică

### EXPERIENȚA PROFESIONALĂ

#### Agent vânzari

*I.I. Costachescu Lucia Adina* [ 01/04/2019 – 15/03/2020 ]

Localitatea: Iași

Țara: România

Efectuarea exercițiilor la ochi cu copiii la Synophthophore, înregistrarea datele persoanele ale pacienților în baza de date Optisoft, preluarea comenzilor de lentile și trimiterea acestora la furnizori, etc.

### EDUCAȚIE ȘI FORMARE PROFESIONALĂ

#### Doctorat

*Universitatea „Alexandru Ioan Cuza”, Școala Doctorala a Facultății de Fizică* [ 01/10/2020 – În curs ]

Adresă: Bulevardul Carol I 11, Iași , 700506 Iasi (România)

Site de internet: <https://www.phys.uaic.ro/>

#### Diploma de Master

*Universitatea „Alexandru Ioan Cuza”, Master de „Optica și Optometrie”* [ 01/10/2018 – 07/07/2020 ]

Adresă: Bulevardul Carol I nr. 18, 700505 Iași (România)

Site de internet: <https://www.phys.uaic.ro/>

Lucrarea de diplomă: Diploma de disertație

Optica, Anatomia organului vizual, Topografie de coerență optică, Aparate și instrumente utilizate în optometrie, etc.

#### Diplomă de Inginer

*Universitatea „Alexandru Ioan Cuza”, Facultatea de Fizică, Specialitatea Fizică Tehnologică* [ 01/10/2014 – 07/07/2018 ]

Adresă: Bulevardul Carol I nr. 18, 700505 Iași (România)

Site de internet: <https://www.phys.uaic.ro/>

Competențe generale:

- mecanica clasică, mecanica cuantică, plasmă, optică, tehnologii informaționale, electricitate și magnetism.

Competențe practice:

- practică de vară cu programul Erasmus+ în Grecia;

- susținerea tezei de licență cu tema: „Sistemele Quantum Dots. Caracterizare, analiză și aplicații.”

## Diplomă de Bacalaureat

**Instituția Publică Liceul Teoretic Pelinia** [ 01/09/2011 – 31/05/2014 ]

Adresă: Pelinia, Drochia (Moldova)

## COMPETENȚE LINGVISTICE

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Limbă(i) maternă(e): **română**

**Altă limbă (Alte limbi):**

**engleză**

**rusă**

**COMPREHENSIUNE ORALĂ B2 CITIT C1 SCRIS C1**

**COMPREHENSIUNE ORALĂ C1 CITIT C1 SCRIS C1**

**EXPRIMARE SCRISĂ B2 CONVERSAȚIE B2**

**EXPRIMARE SCRISĂ B2 CONVERSAȚIE B2**

## PUBLICAȚII

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### **Urban Exotic Pollution: The Harmful Environmental Footprint for Health and Historical Architecture**

[2023]

**Cristina Postolachi**, Alexandru Cocean, Silvia Garofalide, Bogdanel Silvestru Munteanu, Georgiana Cocean, Nicanor Cimpoesu, Vasile Pelin, Iuliana Cocean and Silviu Gurlui, Urban Exotic Pollution: The Harmful Environmental Footprint for Health and Historical Architecture. Int. J. Environ. Res. Public Health 2023, 20, 4715. <https://doi.org/10.3390/ijerph20064715> [IF=4.614 (2021), AIS=0.866 (2021)]

### **Nano-Biocomposite Materials Obtained from Laser Ablation of Hemp Stalks for Medical Applications and Potential Component in New Solar Cells**

[2023]

Alexandru Cocean, Georgiana Cocean, Maria Diaconu, Silvia Garofalide, Francisca Husanu, Bogdanel Silvestru Munteanu, Nicanor Cimpoesu, Iuliana Motrescu, Ioan Puiu, **Cristina Postolachi**, Iuliana Cocean and Silviu Gurlui, Nano-Biocomposite Materials Obtained from Laser Ablation of Hemp Stalks for Medical Applications and Potential Component in New Solar Cells, Int. J. Mol. Sci. 2023, 24, 3892. <https://doi.org/10.3390/ijms24043892> [IF=6.208 (2021), AIS=1.064 (2021)]

### **High-Power Laser Deposition of Chitosan Polymers: Medical and Environmental Applications**

[2022]

Georgiana Cocean, Alexandru Cocean, **Cristina Postolachi**, Silvia Garofalide, Georgiana Bulai, Bogdanel Silvestru Munteanu, Nicanor Cimpoesu, Iuliana Cocean and Silviu Gurlui, High-Power Laser Deposition of Chitosan Polymers: Medical and Environmental Applications. Polymers 2022, 14, 1537. <https://doi.org/10.3390/polym14081537> [IF=4.967 (2021); AIS=0.612 (2021)]

### **Saharan Dust Storm Aerosol Characterization of the Event (9 to 13 May 2020) over European AERONET Sites**

[2022]

Silvia Garofalide, **Cristina Postolachi**, Alexandru Cocean, Georgiana Cocean, Iuliana Motrescu, Iuliana Cocean, Bogdanel Silvestru Munteanu, Marius Prelipceanu, Silviu Gurlui and Liviu Leontie, Saharan Dust Storm Aerosol Characterization of the Event (9 to 13 May 2020) over European AERONET Sites, Atmosphere 2022, 13, 493. <https://doi.org/10.3390/atmos13030493>

[IF=3,110 (2021); AIS=0.627 (2021)]

### **The Origin and Physico-Chemical Properties of Some Unusual Earth Rock Fragments**

[2022]

Alexandru Cocean, **Cristina Postolachi**, Georgiana Cocean, Georgiana Bulai, Bogdanel Silvestru Munteanu, Nicanor Cimpoesu, Iuliana Cocean and Silviu Gurlui, The Origin and Physico-Chemical Properties of Some

Unusual Earth Rock Fragments, Applied Surface Science 2022, 12, 983. <https://doi.org/10.3390/app12030983> [IF= 2.838; AIS=0.409]

### **Study of Physico-Chemical Interactions during the Production of Silver Citrate Nanocomposites with Hemp Fiber**

[2021]

Alexandru Cocean, Iuliana Cocean, Georgiana Cocean, **Cristina Postolachi**, Daniela Angelica Pricop, Bogdanel Silvestru Munteanu, Nicanor Cimpoesu and Silviu Gurlui, Study of Physico-Chemical Interactions during the Production of Silver Citrate Nanocomposites with Hemp Fiber, Nanomaterials 2021, 11, 2560. <https://doi.org/10.3390/nano11102560> [IF=5.719 (2021); AIS = 0,738 (2021)]

### **Laser Induced Method to Produce Curcuminoid-Silanol Thin Films for Transdermal Patches Using Irradiation of Turmeric Target**

[2021]

A. Cocean, I. Cocean, N. Cimpoesu, G. Cocean, R. Cimpoesu, **C. Postolachi**, V. Popescu and S. Gurlui, Laser Induced Method to Produce Curcuminoid-Silanol Thin Films for Transdermal Patches Using Irradiation of Turmeric Target, Appl. Sci. 2021, 11(9), 4030. <https://doi.org/10.3390/app11094030> [IF= 2.838 (2021); AIS=0.409(2021)]

### **Alpha keratin amino acids behavior under high fluence laser interaction. Medical applications**

[2020]

I. Cocean, A. Cocean, **C. Postolachi**, V. Pohoata, N. Cimpoesu, G. Bulai, F. Iacom, S. Gurlui, Alpha keratin amino acids behavior under high fluence laser interaction. Medical applications, Applied Surface Science 499 (2019) 142487, DOI: 10.1016/j.apsusc.2019.05.207 [IF = 6.182; AIS = 0.772]

### **Laser Induced Dyeing (LID) with Reactive Blue 21 on Hemp Fibers**

[2020]

A Cocean, I Cocean, **C Postolachi**, D Pricop, F Husanu and S Gurlui, Laser Induced Dyeing (LID) with Reactive Blue 21 on Hemp Fibers, IOP Conf. Series: Materials Science and Engineering 877 (2020) 012022, doi: 10.1088/1757-899X/877/1/012022

### **Copper Sulfate Pentahydrate Target Behavior During Pulsed Laser Deposition**

[2020]

A Cocean, I Cocean, **C Postolachi**, N Cimpoesu, F Husanu, B Munteanu and S Gurlui, Copper Sulfate Pentahydrate Target Behavior During Pulsed Laser Deposition to Produce Dichroic Coatings for Beam Splitters, IOP Conf. Series: Materials Science and Engineering 877 (2020) 012005, doi:10.1088/1757-899X/877/1/012005

### **Landfill Waste Fire Effects Over Town Areas Under Rainwaters**

[2020]

I Cocean, M Diaconu, A Cocean, **C Postolachi** and S Gurlui, Landfill Waste Fire Effects Over Town Areas Under Rainwaters, IOP Conf. Series: Materials Science and Engineering 877 (2020) 012048, doi:10.1088/1757-899X/877/1/012048

## **COMPETENȚE ORGANIZATORICE**

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### **Competențe organizatorice**

- competențe organizaționale dobândite ca membru în echipa locală de organizare a „The second International Workshop AdvPhotoCat-E 2017”

## COMPETENȚE DE COMUNICARE ȘI INTERPERSONALE

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### Competențe de comunicare și interpersonale

- abilități de comunicare dobândite în mobilitatea de practică Erasmus+ ca studentă Erasmus+ în diverse universități
- abilități de interacțiune cu persoane din diverse țări ca membru de organizare a workshop-ului internațional „AdvPhotoCat-E 2017”

## PRACTICĂ DE SPECIALITATE

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### Practică de specialitate

**Practică Erasmus+**, Department of Condensed Matter of Physics, University of Patras, Patras, Greece, Iunie - Septembrie, 2016

## PRACTICĂ TEHNOLOGICĂ

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### Practică tehnologică

**Practică Erasmus+**, Centre of Material Technology & Photonics, School of Applied Technology, Technological Educational Institute of Crete, Heraklion, Crete, Greece, Iunie - August, 2017

## CONFERINTE

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### Workshop

Membră în echipa locală de organizare a „The second International Workshop AdvPhotoCat-E 2017, Advances on Photocatalysis”, Technological Educational Institute of Crete, Heraklion, Greece, 14-16 Iulie 2017

### International Conference on Innovative Research

[ 21/05/2020 – 22/05/2020 ]

A Cocean, I Cocean, **C Postolachi**, N Cimpoesu, F Husanu, B Munteanu and S Gurlui, Copper sulfate pentahydrate target behavior during pulsed laser deposition to produce dichroic coatings for beam splitters, International Conference on Innovative Research, May 21st to 22nd, 2020, Iași, Romania - *Oral presentation Alexandru Cocean*

### International Conference on Innovative Research

[ 21/05/2020 – 22/05/2020 ]

I Cocean, M Diaconu, A Cocean, **C Postolachi** and S Gurlui, Landfill waste fire effects over town areas under rainwaters, International Conference on Innovative Research, May 21st to 22nd, 2020, Iași, Romania - *Oral presentation Iuliana Cocean*

### International Conference on Innovative Research

[ 21/05/2020 – 22/05/2020 ]

A Cocean, I Cocean, **C Postolachi**, D Pricop, F Husanu and S Gurlui, Laser induced dyeing (LID) with Reactive Blue 21 on hemp fibers, International Conference on Innovative Research, May 21st to 22nd, 2020, Iași, Romania - *Oral presentation Iuliana Cocean*

### The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/>

[ 28/06/2021 – 29/06/2021 ]

Alexandru Cocean, Dorin Botoc, Monica Siroux, **Cristina Postolachi**, Iuliana Cocean, Silviu Gurlui, AMC-COMSOL: the new finite element technique to increase solar cell conversion, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Alexandru Cocean

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/>**

[ 28/06/2021 – 29/06/2021 ]

**Cristina POSTOLACHI**, Mirela SUCHEA, Ioan-Valentin TUDOSE, Alexandru COCEAN, Iuliana COCEAN, Bogdanel Silvestru MUNTEANU, Nicanor CIMPOESU and Silviu GURLUI, CdSe Quantum Dots insertion effect on the alpha-keratin PLD-thin films, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> **Poster presentation Cristina Postolachi**

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Daniela Angelica PRICOP, Alexandru COCEAN, Florin BRANZA, **Cristina POSTOLACHI**, Iuliana COCEAN, Adina COROABA, Dorina Emilia CREANGA, Felicia IACOMI, Silviu GURLUI, Chemical processes induced by light on the AuNP-citrate surface, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Daniela Angelica PRICOP

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Iuliana COCEAN, Alexandru COCEAN, **Cristina POSTOLACHI**, Bogdanel Silvestru MUNTEANU, Nicanor CIMPOESU and Silviu GURLUI, High pulsed-laser effect on the hemp composite - advanced materials, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Iuliana COCEAN

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Alexandru COCEAN, Iuliana COCEAN, **Cristina POSTOLACHI**, Georgiana COCEAN and Silviu GURLUI, Laser induced chitin deacetylation- cutting-edge technology for "natural biological waste", The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Alexandru Cocean

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Alexandru Cocean, Iuliana Cocean, Georgiana Bulai, **Cristina Postolachi**, Bogdan Munteanu, Nicanor Cimpoesu, Silviu Gurlui, Trace elements Photo-Analysis for environmental applications: a case study, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Invited Speaker Silviu Gurlui

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Alexandru Cocean, **Cristina Postolachi**, Iuliana Cocean, Silviu Gurlui, Quantum Dots Pulsed Laser Deposition – a new simulation technique, The 3rd International Workshop Advances on Photocatalysis including Environmental

and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Alexandru Cocean

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Vasile PELIN, Alexandru COCEAN, **Cristina POSTOLACHI**, Silvia GAROFALIDE, Francisca HUSANU, Iuliana COCEAN and Silviu GURLUI, Photochemical effects on heritage asset because environmental stress, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Vasile PELIN

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Iuliana COCEAN, Daniela Angelica PRICOP, Alexandru COCEAN, Francisca HUSANU, Nicanor CIMPOESU, Bogdanel MUNTEANU, Maria DIACONU, **Cristina POSTOLACHI** and Silviu GURLUI, Huge ice lump fell from the atmosphere: effect of complex cumulative pollution phenomenon, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Silviu GURLUI

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Iuliana COCEAN, Maria DIACONU, Alexandru COCEAN, **Cristina POSTOLACHI** and Silviu GURLUI, Photo-degradation of some landfill contaminants on the surrounding waters, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Poster presentation Iuliana COCEAN

### **The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021**

[ 28/06/2021 – 29/06/2021 ]

Iuliana COCEAN, Maria DIACONU, Silvia GAROFALIDE, Alexandru COCEAN, **Cristina POSTOLACHI**, Vasile PELIN and Silviu GURLUI, Washing municipal streets – the origin of some photo-contaminants pollution, The 3rd International Workshop Advances on Photocatalysis including Environmental and Energy Applications AdvPhotoCat-EE 2021, <https://photocatalysis-workshop.eu/> Oral presentation Iuliana COCEAN

### **13th International Conference on Physics of Advanced Materials (ICPAM-13)**

[ 24/09/2021 – 30/09/2021 ]

Alexandru COCEAN, **Cristina POSTOLACHI**, Silvia GAROFALIDE, Diana PATA, Maria DIACONU, Francisca HUSANU, Georgiana BULAI, Bogdan MUNTEANU, Nicanor CIMPOESU, Dan- Gheorghe DIMITRIU, Iuliana COCEAN, Silviu GURLUI, Dual-pulse ns-laser-induced Raman and breakdown spectroscopy to enhance performance on atoms and molecular detection, 13th International Conference on Physics of Advanced Materials (ICPAM-13), September 24 – 30, 2021

### **13th International Conference on Physics of Advanced Materials (ICPAM-13)**

[ 24/09/2021 – 30/09/2021 ]

Alexandru COCEAN, Iuliana COCEAN, Georgiana COCEAN, **Cristina POSTOLACHI**, Bogdanel Silvestru MUNTEANU, Nicanor CIMPOESU and Silviu GURLUI, Keratin-based polymer nanofilm membranes for medical applications, 13th International Conference on Physics of Advanced Materials (ICPAM-13), September 24 – 30, 2021

## **13th International Conference on Physics of Advanced Materials (ICPAM-13)**

[ 24/09/2021 – 30/09/2021 ]

**Cristina POSTOLACHI**, Alexandru COCEAN, Iuliana COCEAN, Georgiana COCEAN, Bogdanel Silvestru MUNTEANU, Nicanor CIMPOESU, and Silviu GURLUI, Study of Si/SiO<sub>2</sub> core/shell Quantum Dots produced by Pulsed Laser Deposition, 13th International Conference on Physics of Advanced Materials (ICPAM-13), September 24 – 30, 2021. – **Oral Presentation Cristina Postolachi**

## **"XXV Galyna Puchkovska International School-Seminar"**

[ 21/09/2021 – 24/09/2021 ]

**C. Postolachi**, M. Sucheai, I.-V. Tudose, A. Cocean, G. Cocean, B.S. Munteanu, N. Cimpoesu, G. Bulai, I. Cocean, S. Gurlu, "Study of the Behavior of CdSe Nanoparticles in Hexane Suspension at the Interaction with the Thin Layer of Keratin Deposited on the Glass", "XXV Galyna Puchkovska International School-Seminar", 21-24 Septembrie 2021 – **Oral presentation Cristina Postolachi**

## **14th International Conference on Physics of Advanced Materials (ICPAM-14)**

[ 08/09/2022 – 15/09/2022 ]

Alexandru Cocean, Silvia Garofalide, Vasile Pelin, Georgiana Cocean, Cristina Postolachi, Iuliana Motrescu, Liviu Leontie, Iuliana Cocean and Silviu Gurlui, Study of the efficiency of solar cells in polluted environments advanced analysis techniques in vivo and in the laboratory, through COMSOL type simulation, 14th International Conference on Physics of Advanced Materials (ICPAM-14), September 8 – 15, 2022, in Dubrovnik, Croatia.

## **CONCURS NAȚIONAL**

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### **Concurs național**

**Concursul național „Dragomir Hurmuzescu”**, obținerea Diplomei de mențiune în anul 2018

## **PRACTICĂ**

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### **Practică**

**Practică Erasmus+**, Department of Condensed Matter of Physics, University of Patras, Patras, Greece, Iulie - Septembrie, 2018

## **PROGRAM DE TRAINING**

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### **OUTDOC**

[ 14/10/2020 – 20/12/2020 ]

Parcursul unor module în cadrul programului de training online, cumulând un număr de 100 de ore de cursuri, aplicații practice și teste: 1. Auto-motivare și inițiativă, 2. Managementul muncii, 3. Responsabilitate, 4. Flexibilitate și adaptabilitate, 5. Comunicare orală, 6. Comunicare scrisă, 7. Creativitate în mediile profesionale, 8. Lucru în echipă, 9. Rezolvarea problemelor și luarea deciziilor, 10. Etica muncii