

Lista de lucrări

Dr. Alexandru Cocean

1. Articole științifice publicate *in extenso* în reviste cotate *Web of Science* cu factor de impact

1. **A. Cocean**, V. Pelin, M. M. Cazacua,, I. Cocean, I. Sandu, S. Gurlui, F. Iacomi, Thermal effects induced by laser ablation in non-homogeneous limestone covered by an impurity layer, Applied Surface Science 424, 324-329 (2017), <http://dx.doi.org/10.1016/j.apsusc.2017.03.172> [IF = 4.439; AIS = 0.627]
2. **A. Cocean**, I. Cocean, S. Gurlui, F. Iacomi, Study of the pulsed laser deposition phenomena by means of Comsol Multiphysics, U.P.B. Sci. Bull., Series A, (Vol. 79, Iss. 2, 2017) ISSN 1223-7027, [IF = 0.461; AIS = 0.094]
3. **A. Cocean**, I. Cocean, M.M. Cazacu, G. Bulai, F.Iacomi, S. Gurlui, Atmosphere self-cleaning under humidity conditions and influence of the snowflakes and artificial light, Applied Surface Science 443 (2018) 83–90, DOI: 10.1016/j.apsusc.2018.02.156 [IF = 5.155; AIS = 0.671]
4. I. Cocean, **A. Cocean**, F. Iacomi, S. Gurlui, City water pollution by soot-surface-active agents revealed by FTIR spectroscopy, Applied Surface Science 499 (2020) 142487, <https://doi.org/10.1016/j.apsusc.2019.04.179> [IF = 6.707; AIS = 0.878]
5. I. Cocean, **A. Cocean**, C. Postolachi, V. Pohoata, N. Cimpoesu, G. Bulai, F. Iacomi, S. Gurlui, Alpha keratin amino acids behavior under high fluence laser interaction. Medical applications, Applied Surface Science 488 (2019) 418–426, DOI: 10.1016/j.apsusc.2019.05.207 [IF = 6.182; AIS = 0.772]
6. V. Popescu, D. G. Astanei, R. Burlica, A. Popescu, C. Munteanu, F. Ciolacu, M. Ursache, L. Ciobanu, **A. Cocean**, Sustainable and cleaner microwave-assisted dyeing process for obtaining ecofriendly and fluorescent acrylic knitted fabrics, Journal of Cleaner Production (2019), doi: <https://doi.org/10.1016/j.jclepro.2019.05.281> [IF = 7.246; AIS = 0.969]

7. **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= 2.679(2020); AIS=0.409(2020)]
8. **A. Cocean**, I. Cocean and S. Gurlui, INFLUENCE OF THE IMPURITIES TO THE COMPOSITE MATERIALS IN LASER ABLATION PHENOMENA, U.P.B. Sci. Bull., Series A, Vol. 83, Iss. 3, 2021[IF= 0.903 (2020); AIS=0.160 (2020)]
9. **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=5.076; AIS = 0756 (2020)]

2. Articole științifice publicate în extenso în reviste fără factor de impact

7. **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
8. **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
9. 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
10. S Garofalide, M Diaconu, I Cocean, **A Cocean**, V Pelin, S Gurlui and L Leontie, Study of Physico-Chemical Characteristics of Some Major Urban Air Pollutants, IOP Conf. Series: Materials Science and Engineering 877 (2020) 012049, doi:10.1088/1757-899X/877/1/012049

3. Conferințe

1. **A. Cocean**, V. Pelin, M. M. Cazacu, S. Gurlui, F. Iacomi, Thermal doping effect on the limestone under laser irradiation, 11th International Conference On Physics Of Advanced Materials (ICPAM-11), Babes-Bolyai University of Cluj-Napoca, Romania, from 8th to 14th of September, 2016 – **Oral presentation Alexandru Cocean**
2. **A. Cocean**, S. Gurlui, F. Iacomi, Dual-Pulsed Laser Induced Non-Linear Thermal Effects, 11th International Conference On Physics Of Advanced Materials (ICPAM-11), Babes-Bolyai University of Cluj-Napoca, Romania, from 8th to 14th of September, 2016 – **Poster presentation Alexandru Cocean**
3. **A. Cocean**, I. Cocean, M. M. Cazacu, V. Pohoată, D. Pricop, S. Gurlui, F. Iacomi, Effects of silver interaction with light over textile dyestuffs chromophore groups in the reaction with hemp fabrics, International Photocatalysis Workshop AdvPhotoCat-E2017, Heraklion, Greece. 14-16 July 2017 – **Poster Presentation Alexandru Cocean**
4. I. Cocean, **A. Cocean**, M. M. Cazacu, V. Pohoată, D. Pricop, D. Țîmpu, S. Gurlui, F. Iacomi, Dyeing process for recovery of textile reactive dyestuffs from wastewaters using photocatalytic ability of garnet and turquoise gemstones, International Photocatalysis Workshop AdvPhotoCat-E2017, Heraklion, Greece. 14-16 July 2017 – ***Oral presentation Iuliana Cocean***
5. I. Cocean, **A. Cocean**, L. Cojocaru, V. Pohoata, N. Cimpoesu, G. Bulai, F. Iacomi, S. Gurlui, Study of horn and wool keratin and shell chitosan PLD, film properties and its effects on hemp fabrics, International Conference On Physics Of Advanced Materials (ICPAM-12), Technological Educational Institute of Crete, Heraklion, Greece, from 22nd of September to 28th of September, 2018 – ***Poster presentation Iuliana Cocean***
6. I. Cocean, **A. Cocean**, V. Pohoata, L. Cojocaru, F. Husanu, S. Gurlui, F. Iacomi, Effect of soot – surface-active agents composites on air and water pollution, International Conference On Physics Of Advanced Materials (ICPAM-12), Technological Educational Institute of Crete, Heraklion, Greece, from 22nd of September to 28th of September, 2018 – ***Oral presentation Iuliana Cocean***
7. **A. Cocean**, I. Cocean, L. Cojocaru, N. Cimpoesu, G. Bulai, F. Iacomi, S. Gurlui, Damage threshold of special mirrors obtained by pulsed laser deposition under high fluence

- irradiation. Experimental and theoretical overview in COMSOL, International Conference On Physics Of Advanced Materials (ICPAM-12), Technological Educational Institute of Crete, Heraklion, Greece, from 22nd of September to 28th of September, 2018 – oral presentation – **Oral presentation Alexandru Cocean**
8. **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, Iși, Romania - **Oral presentation Alexandru Cocean**
 9. 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, Iși, Romania - *Oral presentation Iuliana Cocean*
 10. **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, Iși, Romania - *Oral presentation Iuliana Cocean*
 11. S Garofalide, M Diaconu, I Cocean, **A Cocean**, V Pelin, S Gurlui and L Leontie, Study of physico-chemical characteristics of some major urban air pollutants, International Conference on Innovative Research, May 21st to 22nd, 2020, Iși, Romania - *Poster presentation Silvia Garofalide*
 12. **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**
 13. 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*
 14. 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
15. 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
 16. **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**
 17. **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**
 18. **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**
 19. 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

20. 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
21. 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
22. 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
23. **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* Oral presentation Alexandru Cocean
24. **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*, Poster Presentation Iuliana Cocean
25. Cristina POSTOLACHI, **Alexandru COCEAN**, Iuliana COCEAN, Georgiana COCEAN, Bogdanel Silvestru MUNTEANU Nicanor CIMPOESU and Silviu GURLUI, Study of

SiO₂/ HORN Quantum Dots produced by Pulsed Laser Deposition, *13th International Conference on Physics of Advanced Materials (ICPAM-13), September 24 – 30, 2021*
Oral presentation Alexandru Cocean

4. Membru în proiecte de cercetare

1. SATY: Satellite hybrid micro-thrusters, Romanian Space Agency (ROSA), 2017-2018/370.000 EURO (Director Proiect Conf. Univ. Dr. Habil. Silviu GURLUI), Poziția: Research Assistant/Asistent de cercetare științifică (ACS)
2. AiRFRAME: Aerosol properties retrieval from remote sensing spectroscopic measurements (partner UAIC), (ROSA), 2017-2018/45.000 EURO (Director Proiect Conf. Univ. Dr. Habil. Silviu GURLUI), Poziția: Research Assistant/Asistent de cercetare științifică (ACS)
3. ENIAN: („Accelerarea ionică intensificată prin iradiere cu laser a straturilor speciale de polimeri subțiri care conțin nanoparticule”), contract de finanțare nr. FAIR_09/2020A), 2020-2023/ 1.600.000 lei, (Director Proiect Conf. Univ. Dr. Habil. Silviu GURLUI), Poziția: Research Assistant/ Asistent de cercetare științifică (ACS)
4. ROBIM: (“Senzori MicroLIBS pentru misiuni robotizate de explorare planetară și astrobiologice”, contract de finanțare PCE 197/2021, 2020-2023/1.171.032 lei, (Director Proiect Conf. Univ. Dr. Habil. Silviu GURLUI), Poziția: Research Assistant/ Asistent de cercetare științifică (ACS)