

PODKLADY PRO KVANTITATIVNÍ HODNOCENÍ ZA OBDOBÍ 2018-2023, M.Sc.
Rafael Omar Torres Mendieta, Ph.D.

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I. VĚDECKO-VÝZKUMNÁ ČINNOST

1.1. Článek v časopise WoS/Scopus/MathSci 2018-2023

(Point evaluation **34.06** points.)

The points share was equally distributed among all co-authors for most of the articles, except for those in which I am the first author and/or corresponding author since in these articles, my contribution involved forming and coordinating the research group, in addition to providing the original idea that led to the realization of the article. For those articles where I am the first and/or corresponding author, the share is 1/4. Moreover, for transparency, my individual contribution is also presented according to the relevant CRediT roles (<https://www.elsevier.com/authors/policies-and-guidelines/credit-author-statement>), which all co-authors agree on before the final publication:

- Term
- Conceptualization
- Methodology
- Software
- Validation
- Formal analysis
- Investigation
- Resources
- Data Curation
- Writing - Original Draft
- Writing - Review & Editing
- Visualization
- Supervision
- Project administration
- Funding acquisition

1. M. Assis, E. Cordoncillo, R. Torres-Mendieta, H. Beltrán-Mir, G. Mínguez-Vega, R. Oliveira, E. R. Leite, C. C. Foggi, C. E. Vergani, E. Longo, J. Andrés, Towards the scale-up of the formation of nanoparticles on α -Ag₂WO₄ with bactericidal properties by femtosecond laser irradiation. *Scientific reports*, vol. 8, Issue 1, pp. 1-11, DOI: 10.1038/s41598-018-19270-9, 2018 (Q1 in Multidisciplinary Sciences. **Point evaluation 10x1/11 = 0.9 points**. CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
2. C. Doñate-Buendia, R. Torres-Mendieta, A. Pyatenko, E. Falomir, M. Fernández-Alonso, G. Mínguez-Vega, Fabrication by laser irradiation in a continuous flow jet of carbon quantum dots for fluorescence imaging. *ACS Omega*, vol. 3, Issue 3, pp. 2735-2742, DOI: 10.1021/acsomega.7b02082, 2018 (Q2 in Chemistry, Multidisciplinary. **Point evaluation 8x1/6 = 1.3 points**. CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
3. M. Assis, E. Cordoncillo, R. Torres-Mendieta, H. Beltrán-Mir, G. Mínguez-Vega, A. F. Gouveia, E. Leite, J. Andres, E. Longo, Laser-induced formation of bismuth nanoparticles. *Physical Chemistry Chemical Physics*, vol. 20, Issue 20, pp. 13693-13696, DOI: 10.1039/c8cp01225c, 2018 (Q1 in Physics, Atomic, Molecular & Chemical. **Point evaluation 10x1/9 = 1.11 points**. CRediT roles: Term, Conceptualization, Methodology, Software,

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Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).

4. M. Assis, N. G. Macedo, T. R. Machado, M. M. Ferrer, A. F. Gouveia, E. Cordoncillo, R. Torres-Mendieta, H. Beltran-Mir, G. Minguez-Vega, E. R. Leite, J. R. Sambrano, J. Andres, E. Longo, Laser/electron irradiation on indium phosphide (InP) semiconductor: Promising pathways to *in situ* formation of indium nanoparticles. Particle & Particle Systems Characterization, vol. 35, Issue 11, pp. 1800237, DOI: 10.1002/ppsc.201800237, 2018, (Q3 in Nanoscience & Nanotechnology). **Point evaluation 6x1/13 = 0.46 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
5. D. Silvestri, S. Wacławek, B. Sobel, R. Torres-Mendieta, V. Novotný, N. H. Nguyen, A. Sevcu, V. V. T. Padil, J. Mullerova, M. Stuchlik, M. P. Papini, M. Cernik, R. S. Varma, A poly (3-hydroxybutyrate)-chitosan polymer conjugate for the synthesis of safer gold nanoparticles and their applications. Green Chemistry, vol. 20, Issue 21, pp. 4975-4982, DOI: 10.1039/c8gc02495b, 2018, (Q1 in Green & Sustainable Science & Technology). **Point evaluation 10x1/13 = 0.77 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
6. V. García-Sanz, V. Paredes-Gallardo, C. Bellot-Arcís, L. Martínez-León, R. Torres-Mendieta, J. Montero, A. Albaladejo, Femtosecond laser settings for optimal bracket bonding to zirconia. Lasers in medical science, vol. 34, Issue 2, pp. 297-304, DOI: 10.1007/s10103-018-2589-3, 2019, (Q2 in Green & Sustainable Science & Technology). **Point evaluation 8x1/7 = 1.14 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
7. D. Silvestri, J. Mikšíček, S. Wacławek, R. Torres-Mendieta, V. V. Padil, M. Černík, Production of electrospun nanofibers based on graphene oxide/gum Arabic. International journal of biological macromolecules, vol. 124, pp. 396-402, DOI: 10.1016/j.ijbiomac.2018.11.243, 2019, (Q1 in Chemistry, Applied). **Point evaluation 10x1/6 = 1.66 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
8. R. Torres-Mendieta, O. Havelka, M. Urbánek, M. Cvek, S. Wacławek, V. V. T. Padil, D. Jasikova, M. Kotek, M. Černík, Laser-assisted synthesis of Fe-Cu oxide nanocrystals. Applied Surface Science, vol. 469, pp. 1007-1015, DOI: 10.1016/j.apsusc.2018.11.058, 2019, (Q1 in Physics, Applied). **Point evaluation 10x1/4 = 2.5 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).
9. P. S. Lemos, G. S. Silva, R. A. Roca, M. D. Assis, R. Torres-Mendieta, H. Beltrán-Mir, G. Minguez-Vega, E. Cordoncillo, J. Andres, E. Longo, Laser and electron beam-induced formation of Ag/Cr structures on Ag₂CrO₄. Physical Chemistry Chemical Physics, vol. 21, Issue 11, pp. 6101-6111, DOI: 10.1039/c8cp07263a, 2019, (Q1 in Physics, Atomic, Molecular & Chemical). **Point evaluation 10x1/10 = 1 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
10. M. D. Assis, T. Robledo, C. C. Foggi, A. M. Kubo, G. Minguez-Vega, E. Cordoncillo, H. Beltran-Mir, R. Torres-Mendieta, J. Andres, M. Oliva, C. E. Vergani, P. A. Barbugli, E. R. Camargo, R. C. Borra, E. Longo, Ag nanoparticles/α-Ag₂WO₄ composite formed by electron beam and femtosecond irradiation as potent antifungal and antitumor agents. Scientific reports, vol. 9, Issue 1, pp. 1-15, DOI: 10.1038/s41598-019-46159-y, 2019, (Q1 in Multidisciplinary Sciences). **Point evaluation 10x1/15 = 0.66 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).

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11. S. Wacławek, D. Silvestri, P. Hrabák, V. V. Padil, R. Torres-Mendieta, M. Wacławek, M. Cernik, D. D. Dionysiou, Chemical oxidation and reduction of hexachlorocyclohexanes: A review. *Water Research*, vol. 162, pp. 302-319, DOI: 10.1016/j.watres.2019.06.072, 2019, (Q1 in Engineering, Environmental). **Point evaluation 10x1/8 = 1.25 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
12. M. Cvek, R. Torres-Mendieta, O. Havelka, M. Urbanek, T. Plachy, M. Cernik, Laser-induced fragmentation of carbonyl iron as a clean method to enhance magnetorheological effect. *Journal of Cleaner Production*, vol. 254, pp. 120182, DOI: 10.1016/j.jclepro.2020.120182, 2020, (Q1 in Engineering, Environmental). **Point evaluation 10x1/6 = 1.66 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, and Supervision).
13. R. Torres-Mendieta, F. Yalcinkaya, E. Boyraz, O. Havelka, S. Wacławek, J. Maryška, M. Cernik, M. Bryjak, PVDF nanofibrous membranes modified via laser-synthesized Ag nanoparticles for a cleaner oily water separation. *Applied Surface Science*, vol. 526, pp. 146575, DOI: 10.1016/j.apsusc.2020.146575, 2020, (Q1 in Physics, Applied). **Point evaluation 10x1/4 = 2.5 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).
14. V. V. Padil, J. Y. Cheong, K. P. Akshay Kumar, P. Makvandi, E. N. Zare, R. Torres-Mendieta, S. Wacławek, M. Cernik, I. D. Kim, R. S. Varma, Electrospun fibers based on carbohydrate gum polymers and their multifaceted applications. *Carbohydrate Polymers*, vol. 247, pp. 116705, DOI: 10.1016/j.carbpol.2020.116705, 2020, (Q1 in Chemistry, Applied). **Point evaluation 10x1/10 = 1 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
15. R. O. Torres-Mendieta, M. M. Teixeira, G. Mínguez-Vega, D. de Souza, Y. G. Gobato, M. Assis, H. Beltran-Mir, E. Cordoncillo, J. Andres, M. Cernik, E. Longo, Toward Expanding the Optical Response of Ag_2CrO_4 and Bi_2O_3 by Their Laser-Mediated Heterojunction. *The Journal of Physical Chemistry C*, vol. 124, Issue 48, pp. 26404-26414, DOI: 10.1021/acs.jpcc.0c08301, 2020, (Q2 in Chemistry, Physical). **Point evaluation 8x1/4 = 2 points.** CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).
16. K. A. Kumar, E. N. Zare, R. Torres-Mendieta, S. Wacławek, P. Makvandi, M. Černík, V. V. T. Padil, R. S. Varma, Electrospun fibers based on botanical, seaweed, microbial, and animal sourced biomacromolecules and their multidimensional applications. *International Journal of Biological Macromolecules*, vol. 171, pp. 130-149, DOI: 10.1016/j.ijbiomac.2020.12.205, 2021, (Q1 in Chemistry, Applied). **Point evaluation 10x1/8 = 1.25 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
17. D. Silvestri, S. Wacławek, B. Sobel, R. Torres-Mendieta, M. Pawlyta, V. V. T. Padil, J. Filip, M. Černík, Modification of nZVI with a bio-conjugate containing amine and carbonyl functional groups for catalytic activation of persulfate. *Separation and Purification Technology*, vol. 257, pp. 117880, DOI: 10.1016/j.seppur.2020.117880, 2021, (Q1 in Engineering, Chemical). **Point evaluation 10x1/8 = 1.25 points.** CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
18. O. Havelka, M. Cvek, M. Urbánek, D. Łukowiec, D. Jašíková, M. Kotek, M. Cernik, V. Amendola, R. Torres-Mendieta, On the Use of Laser Fragmentation for the Synthesis of Ligand-Free Ultra-Small Iron Nanoparticles in Various Liquid Environments. *Nanomaterials*, vol. 11, Issue 6, pp. 1538, DOI: 10.3390/nano11061538, 2021, (Q1 in Physics, Applied). **Point evaluation 10x1/4 = 2.5 points.** CRediT roles: Term, Conceptualization, Methodology,

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Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).

19. D. Ettel, O. Havelka, S. Isik, D. Silvestri, S. Waclawek, M. Urbánek, V. V. T. Padil, M. Cernik, F. Yalcinkaya, R. Torres-Mendieta, Laser-synthesized Ag/TiO nanoparticles to integrate catalytic pollutant degradation and antifouling enhancement in nanofibrous membranes for oil-water separation. *Applied Surface Science*, vol. 564, pp. 150471, DOI: 10.1016/j.apsusc.2021.150471, 2021, (Q1 in Physics, Applied). **Point evaluation 10x1/4 = 2.5 points**. CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).
20. D. Silvestri, K. Krawczyk, M. Pawlyta, M. Krzywiecki, V. V. T. Padil, R. Torres-Mendieta, F. Ghanbari, O. Dinc, M. Cernik, D. D. Dionysiou, S. Waclawek, Influence of catalyst zeta potential on the activation of persulfate. *Chemical Communications*, vol. 57, Issue 63, pp. 7814-7817, DOI: 10.1039/d1cc01946e, 2021, (Q1 in Chemistry, Multidisciplinary). **Point evaluation 10x1/11 = 0.9 points**. CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
21. V. V. T. Padil, K. A. Kumar, S. Murugesan, R. Torres-Mendieta, S. Waclawek, J. Y. Cheong, M. Cernik, R. S. Varma, Sustainable and safer nanoclay composites for multifaceted applications. *Green Chemistry*, vol. 24, Issue 8, pp. 3081-3114, DOI: 10.1039/d1gc03949k, 2022, (Q1 in Chemistry, Multidisciplinary). **Point evaluation 10x1/8 = 1.25 points**. CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).
22. M. Cvek, T. Jamatia, P. Suly, M. Urbanek, R. Torres-Mendieta, Stable Magnetorheological Fluids Containing Bidisperse Fillers with Compact/Mesoporous Silica Coatings. *International Journal of Molecular Sciences*, vol. 23, Issue 19, pp. 11044, DOI: 10.3390/ijms231911044, 2022, (Q1 in Biochemistry & Molecular Biology). **Point evaluation 10x1/5 = 2.0 points**. CRediT roles: Validation, Formal analysis, Investigation, Resources, Writing - Review & Editing, Visualization, Project administration, and Funding acquisition).
23. R. Torres-Mendieta, N. H. A. Nguyen, A. Guadagnini, J. Semerad, D. Łukowiec, P. Parma, J. Yang, S. Agnoli, A. Sevcu, T. Cajthaml, M. Cernik, V. Amendola, Growth suppression of bacteria by biofilm deterioration using silver nanoparticles with magnetic doping. *Nanoscale*, vol. 14, Issue 48, pp. 18143-18156, DOI: 10.1039/D2NR03902H, 2022, (Q1 in Chemistry, Multidisciplinary). **Point evaluation 10x1/4 = 2.5 points**. CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).

1.2. Příspěvky ve sborníku mezinárodní conference 2018-2023

(Point evaluation **2.23** points)

1. C. Donate-Buendia, R. Torres-Mendieta, A. Pyatenko, E. Falomir, M. Fernandez-Alonso, G. Minguez-Vega, Fluorescence cell imaging using carbon quantum dots generated by continuous fragmentation, Conference on Synthesis and Photonics of Nanoscale Materials XVI, 2-3 February, California, USA, DOI: 10.1117/12.2510215, 2019 (**Point evaluation 4x1/6 = 0.66 points**). CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data Curation, Writing - Original Draft, Writing - Review & Editing, and Visualization).
2. K. Krawczyk, S. Waclawek, D. Silvestri, R. Torres-Mendieta, V. V. T. Padil, M. Rezanka, M. Cernik, Synergistic Effect Of Nano Zero-Valent Iron And Cyclodextrins: A Nano-Structure For Water Purification, 11th International Conference on Nanomaterials - Research and Application (NANOCON), 16-18 October, Czech Republic, DOI:

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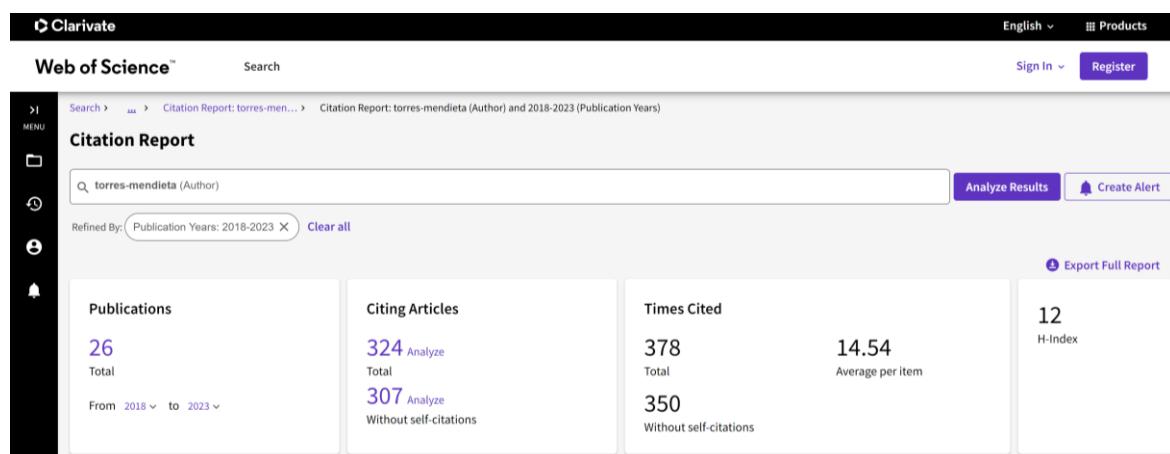
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10.37904/nanocon.2019.8575, 2020 (**Point evaluation 4x1/7 = 0.57 points**. CRediT roles: Methodology, Data Curation, Writing - Original Draft, and Writing - Review & Editing).

3. D. Ettel, O. Havelka, S. Isik, F. Yalcinkaya, R. Torres-Mendieta, Expansion of Optical Properties in TiO_x Nanoparticles by Their Laser-Mediated Alloying With Ag, 12th International Conference on Nanomaterials - Research and Application (NANOCON), 21-23 October, Czech Republic, DOI: 10.37904/nanocon.2020.3700, 2021 (**Point evaluation 4x1/4 = 1 points**. CRediT roles: Term, Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data Curation, Writing - Original Draft, Writing - Review & Editing, Visualization, Supervision, Project administration, and Funding acquisition).

1.3. Citace

2018-2023: 350 citations in WoS (without self-citations of all co-authors), average share on publications approximately 15.45 % (share 2/13. Point evaluation **350x3x2/13 = 162 points**) ([APPENDIX A.1.](#))



1.4. Redakční rada časopisu WoS/Scopus/ERIH

(Point evaluation **9 x 2 = 18 points**)

1. Guest editor for the "Journal of Membranes", MDPI publishing, special issue name: Surface and Interface Engineering of Polymeric Membrane. (share 1/1. **Point evaluation = 9 points**)
2. Guest editor for the "Journal of Membranes", MDPI publishing, special issue name: Surface and Interface Engineering of Membrane Composites. (share 1/1. **Point evaluation = 9 points**)

1.5. Ocenění prestižních organizací

(Point evaluation **5 x 2 = 10 points**)

1. ANGEL Decennial Award for Best Image - The best image related to ANGEL research, 2020, Hefei, China (share 1/1. **Point evaluation 5 x 1 = 5 points**)
2. Winner of the first prize in EIT Jumpstarter category EIT RawMaterials, 2021, Europe, online (share 1/1. **Point evaluation 5 x 1 = 5 points**)

1.6 Vyzvaná přednáška na mezinárodní vědecké konferenci

(Point evaluation **4 x 4 = 16 points**)

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1. Invited talk in 2021 at the "2nd International Conference on Nanomaterials, Nanofabrication, and Nanocharacterization (NANOMACH)" held in Turkey, title "Laser-mediated fabrication of nanoparticles for the decoration of nanofibrous membranes and their usage in the oil/water separation sector". (share 1/1. **Point evaluation = 4 points**)
2. Invited talk in 2022 at the "2nd Global Summit and Expo on Materials Science and Nanoscience (GSEMSN2022)" held in Dubai, title "Laser-assisted generation of ultra-small iron nanoparticles". (share 1/1. **Point evaluation = 4 points**)
3. Invited talk in 2023 at the "12th Annual World Congress of Nano Science & Technology (Nano-S&T)" held in Japan, title "On the Laser-Mediated Generation of Nanoalloys from Immiscible Elements like FeCu". (share 1/1. **Point evaluation = 4 points**)
4. Invited talk in 2023 at the "ANGEL satellite event Innovative biomedical applications of laser-generated colloids" held in Italy, title "Bacterial growth suppression by biofilm deterioration through magnetic element-doped silver nanoparticles". (share 1/1. **Point evaluation = 4 points**)

II. PEDAGOGICKÁ ČINNOST

2.1. Přednášení v řad. studiu min. 2 hod/týd. / sem

(Point evaluation $6 \times 2 = 12$ points)

1. One lecture at the Faculty of Mechatronics Informatics and Interdisciplinary Studies 2017-2018 LS. Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

Schedule and subjects	Information about the user and his roles in IS/STAG																																		
Listing dates	 Dr. Rafael Torres Role / user Teacher: NTI: RAFAEL_TORRES																																		
Entering grades	Teacher's Subjects (S004)																																		
Bulk email	Variant year 2017/2018 Semester LS																																		
Trainer overview	<table border="1"><thead><tr><th>Abbreviation</th><th>Name - click to get exp. catalog</th><th>Year var.</th><th>Teaching</th><th>Guarantor</th><th>Front runner</th><th>Exercising</th><th>He leads the seminar</th><th>Examination</th><th>ZS/LS students</th><th>Export stamps on exp.</th><th>Occurrences of teaching</th></tr></thead><tbody><tr><td>NTI/FCN</td><td>Functionalization of nanomaterials</td><td>2017/18</td><td>LS</td><td></td><td>✓</td><td></td><td></td><td>—</td><td>0 / 14</td><td>CSV</td><td>PDF</td></tr></tbody></table>											Abbreviation	Name - click to get exp. catalog	Year var.	Teaching	Guarantor	Front runner	Exercising	He leads the seminar	Examination	ZS/LS students	Export stamps on exp.	Occurrences of teaching	NTI/FCN	Functionalization of nanomaterials	2017/18	LS		✓			—	0 / 14	CSV	PDF
Abbreviation	Name - click to get exp. catalog	Year var.	Teaching	Guarantor	Front runner	Exercising	He leads the seminar	Examination	ZS/LS students	Export stamps on exp.	Occurrences of teaching																								
NTI/FCN	Functionalization of nanomaterials	2017/18	LS		✓			—	0 / 14	CSV	PDF																								
Course syllabus																																			
Schedule Requirements																																			

2. One lecture at the Faculty of Mechatronics Informatics and Interdisciplinary Studies 2018-2019 LS. Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

Schedule and subjects	Information about the user and his roles in IS/STAG																																		
Listing dates	 Dr. Rafael Torres Role / user Teacher: NTI: RAFAEL_TORRES																																		
Entering grades	Teacher's Subjects (S004)																																		
Bulk email	Variant year 2018/2019 Semester LS																																		
Trainer overview	<table border="1"><thead><tr><th>Abbreviation</th><th>Name - click to get exp. catalog</th><th>Year var.</th><th>Teaching</th><th>Guarantor</th><th>Front runner</th><th>Exercising</th><th>He leads the seminar</th><th>Examination</th><th>ZS/LS students</th><th>Export stamps on exp.</th><th>Occurrences of teaching</th></tr></thead><tbody><tr><td>NTI/FCN</td><td>Functionalization of nanomaterials</td><td>2018/19</td><td>LS</td><td></td><td>✓</td><td>✓</td><td></td><td>—</td><td>0 / 5</td><td>CSV</td><td>PDF</td></tr></tbody></table>											Abbreviation	Name - click to get exp. catalog	Year var.	Teaching	Guarantor	Front runner	Exercising	He leads the seminar	Examination	ZS/LS students	Export stamps on exp.	Occurrences of teaching	NTI/FCN	Functionalization of nanomaterials	2018/19	LS		✓	✓		—	0 / 5	CSV	PDF
Abbreviation	Name - click to get exp. catalog	Year var.	Teaching	Guarantor	Front runner	Exercising	He leads the seminar	Examination	ZS/LS students	Export stamps on exp.	Occurrences of teaching																								
NTI/FCN	Functionalization of nanomaterials	2018/19	LS		✓	✓		—	0 / 5	CSV	PDF																								
Course syllabus																																			
Schedule Requirements																																			

3. One lecture at the Faculty of Mechatronics Informatics and Interdisciplinary Studies 2019-2020 LS. Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

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The screenshot shows the IS/STAG software interface. In the top navigation bar, the 'My teaching' tab is selected. On the left sidebar, under 'Schedule and subjects', several course syllabus entries are listed: 'Listing dates', 'Entering grades', 'Bulk email', 'Trainer overview', 'Course syllabus', and 'Schedule Requirements'. The main content area displays 'Information about the user and his roles in IS/STAG' with a profile picture of Dr. Rafael Torres and the role 'Teacher: NTI: RAFAEL_TORRES'. Below this is a table titled 'Teacher's Subjects (S004)' for the variant year 2019/2020, semester LS. The table includes columns for Abbreviation (NTI/FCN), Name (Functionalization of nanomaterials), Year var. (2019/20), Teaching (LS), Front runner (✓), Exercising (✓), He leads the seminar (✓), Examination (—), ZS/LS students (0 / 8), and links for Export (CSV), Register (PDF), and Occurrences (PRA). A note at the bottom indicates 'Name - click to get exp. catalog'.

4. One lecture at the Faculty of Science, Humanities and Education 2020-2021 LS.
Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

The screenshot shows the IS/STAG software interface. The 'My teaching' tab is selected. The left sidebar shows course syllabus entries: 'Listing dates', 'Entering grades', 'Bulk email', 'Trainer overview', 'Course syllabus', and 'Schedule Requirements'. The main content area displays 'Information about the user and his roles in IS/STAG' with a profile picture of Dr. Rafael Torres and the role 'Teacher: NTI: RAFAEL_TORRES'. Below this is a table titled 'Teacher's Subjects (S004)' for the variant year 2020/2021, semester LS. The table includes columns for Abbreviation (KCH/FCN, NTI/FCN), Name (Functionalization of nanomaterials), Year var. (2020/21), Teaching (LS), Front runner (✓), Exercising (✓), He leads the seminar (✓), Examination (—), ZS/LS students (0 / 7), and links for Export (CSV), Register (PDF), and Occurrences (PRA). A note at the bottom indicates 'Name - click to get exp. catalog'.

5. One lecture at the Faculty of Science, Humanities and Education 2021-2022 LS.
Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

The screenshot shows the IS/STAG software interface. The 'My teaching' tab is selected. The left sidebar shows course syllabus entries: 'Listing dates', 'Entering grades', 'Bulk email', 'Trainer overview', 'Course syllabus', and 'Schedule Requirements'. The main content area displays 'Information about the user and his roles in IS/STAG' with a profile picture of Dr. Rafael Torres and the role 'Teacher: NTI: RAFAEL_TORRES'. Below this is a table titled 'Teacher's Subjects (S004)' for the variant year 2021/2022, semester LS. The table includes columns for Abbreviation (KCH/FCN), Name (Functionalization of nanomaterials), Year var. (2021/22), Teaching (LS), Front runner (✓), Exercising (✓), He leads the seminar (✓), Examination (—), ZS/LS students (0 / 10), and links for Export (CSV), Register (PDF), and Occurrences (PRA). A note at the bottom indicates 'Name - click to get exp. catalog'.

6. One lecture at the Faculty of Science, Humanities and Education 2022-2023 LS.
Functionalization of nanomaterials (2h/week/semester) (share 1/1. **Point evaluation = 2 points**)

The screenshot shows the IS/STAG software interface. The 'My teaching' tab is selected. The left sidebar shows course syllabus entries: 'Listing dates', 'Entering grades', 'Bulk email', 'Trainer overview', 'Course syllabus', and 'Schedule Requirements'. The main content area displays 'Information about the user and his roles in IS/STAG' with a profile picture of Dr. Rafael Torres and the role 'Teacher: NTI: RAFAEL_TORRES'. Below this is a table titled 'Teacher's Subjects (S004)' for the variant year 2022/2023, semester LS. The table includes columns for Abbreviation (KCH/FCN), Name (Functionalization of nanomaterials), Year var. (2022/23), Teaching (LS), Front runner (✓), Exercising (✓), He leads the seminar (✓), Examination (—), ZS/LS students (0 / 10), and links for Export (CSV), Register (PDF), and Occurrences (PRA). A note at the bottom indicates 'Name - click to get exp. catalog'.

2.2. Výukový film, video, výukový software

(Point evaluation $5 \times 1.5 = 7.5$ points)

1. A scientific outreach video has been prepared for the general public. The name of the video is "Cleaning day", and the idea is to explain in a familiar way to nonspecialized audiences the concept of micelle formation and how it impacts daily activities like when doing laundry. The video follows the formula of outreach video activities promoted and sponsored by the European Commission under the program Marie Skłodowska-Curie Actions.
https://www.youtube.com/watch?v=HDw4gk5pYI8&ab_channel=EuropeanCommission
The original video can be downloaded from:
https://drive.google.com/file/d/1USetQb0DfA9qPcDX8_V4JUfWmaHL7S61/view?usp=sharing
(share 1/1. **Point evaluation = 1.5 points**)

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2. A scientific outreach video has been prepared for audiences interested in nanomaterials synthesis. The name of the video is "Laser synthesis - Ultrafast preparation of titanium nanoparticles", and the idea is to show how straightforward it is to synthesize Ti NPs with an average size of 64 nm by employing a femtosecond pulsed laser source. The video intends to provide graphical support for academic and non-academic audiences on how the process known as laser ablation in liquids works.
The original video can be downloaded from:
https://drive.google.com/file/d/1DgWMWh1dSFTwe5V-zt9u5VN_dOUrAzDt/view?usp=sharing
(share 1/1. **Point evaluation = 1.5 points**)
3. A set of different videos have been recorded for the e-learning portal of the Technical University of Liberec. The videos collect all the lectures provided to the students of the course Functionalization of nanomaterials (2020/2021). The set of videos was recorded and uploaded to the e-learning platform in an effort to avoid the students experiencing the pandemic's severe consequences had limited access to their education.
Initially, the set of videos was intended to support the students who have the lecture:
<https://elearning.tul.cz/enrol/index.php?id=7902>
However, now these videos are serving as complementary teaching material for students of the course Functionalization of Nanomaterials offered by the chemistry department from the Faculty of Science, Humanities and Education at the Technical University of Liberec.
The set of original 39 videos can be downloaded from:
<https://drive.google.com/drive/folders/1aPsz8mgm47lOeUgxWj2fDnz8Z2ejm3?usp=sharing>
(share 1/1. **Point evaluation = 1.5 points**)
4. A set of three videos have been recorded for the e-learning portal of the Technical University of Liberec. The videos collect an extended lecture on the generation of nanoparticles by laser ablation provided to the students of the course Introduction to the study of nanomaterials (2020/2021).
Initially, these videos were intended to support the students who have the lecture:
<https://elearning.tul.cz/enrol/index.php?id=7902>
However, now these videos are serving as complementary teaching material for students of the course Introduction to the study of nanomaterials offered by the Institute of New Technologies and Applied Informatics from the Faculty of Mechatronics Informatics and Interdisciplinary Studies at the Technical University of Liberec.
The set of original 3 videos can be downloaded from:
https://drive.google.com/drive/folders/1Xk2Aji9b5XNmAIP53a91e4EhCa_K2Nhn?usp=sharing
(share 1/1. **Point evaluation = 1.5 points**)
5. A set of two videos have been recorded for the Federal University of São Carlos in Brazil. The videos collect a didactical explanation of the segregation of metals from photosensitive semiconductors and what they could be used for. These videos were produced by the Open Laboratory of Interactivity for the Dissemination of Scientific and Technological Knowledge (LAbI) at the Federal University of São Carlos in Brazil. All rights belong to the Federal University of São Carlos. The set of videos can be watched in the following links:
https://www.youtube.com/watch?v=k9r0d8v7RyM&ab_channel=CDMFFAPESP
<https://www.youtube.com/watch?v=CBKEH46V4Yk>
(share 1/1. **Point evaluation = 1.5 points**)

2.3. Aktivní doktorand po SDZ - školitel nebo školitel specialist

(Point evaluation **3 x 2 = 6 points**)

1. Advisor of the Ph.D. thesis of M.Sc. Belin Bilgin Sabit. FM, TUL: Surface engineered nanofiber scaffolds for enhanced biofilm formation in microbial fuel cells. (**Point evaluation = 2 points**)
2. Advisor of the Ph.D. thesis of Ing. Ondřej Havelka. FM, TUL: Composition control of laser-generated bimetallic NPs usable as catalysts. (**Point evaluation = 2 points**)
3. Advisor of the Ph.D. thesis of Ing. Sabrin Abdallah. FM, TUL: Morphological manipulation of laser-synthesized nanoparticles: the ultimate frontier in laser synthesis of nanocolloids. (**Point evaluation = 2 points**)

2.4. Vedoucí úspěšně obhájené diplomové práce

(Point evaluation **3 x 1 = 3 points**)

1. Supervisor of Master thesis Ing. Ondřej Havelka, FM, TUL: Laser-generated synthesis of Pd-Ni nanoalloys usable as catalysts, 2021. (**Point evaluation = 1 points**)
2. Supervisor of Master thesis Ing. Sabrin Abdallah, FM, TUL: Control of elemental distribution of laser synthesized Pd / FeOx nanoparticles, 2022. (**Point evaluation = 1 points**)
3. Supervisor of Master thesis Ing. Lukáš Zima, FM, TUL: Design and automation of experimental laser ablation system operation for affordable and competitive production of nanoparticles, 2022. (**Point evaluation = 1 points**)

2.5. Vedení studentského projektu / sem

(Point evaluation **2 x 0.5 = 1 points**)

1. Supervisor of Bachelor thesis Ing. Ondřej Havelka, FM, TUL: Generation of Fe nanoclusters by laser synthesis, 2019. (**Point evaluation = 0.5 points**)
2. Advisor of Bachelor thesis Bc. Jan Braun, FP, TUL: Control of quantitative elemental composition of laser-synthesized gold-nickel nanocolloids, 2022. (**Point evaluation = 0.5 points**)

2.6. Vedení oceněné studentské práce

(Point evaluation **7 x 1 = 7 points**)

1. TUL rector's award for outstanding study results – Bachelor studies Ing. Ondřej Havelka – Supervisor of bachelor thesis 2019. (**Point evaluation = 1 points**)
2. Award for outstanding results in the field of nanomaterials by the Ministry of Education, Youth and Sports of the Czech Republic - Ing. Ondřej Havelka –Supervisor of bachelor thesis 2019, and first and corresponding author of manuscripts considered. (**Point evaluation = 1 points**)
3. TUL rector's award for outstanding study results – Master studies Ing. Ondřej Havelka – Supervisor of master thesis 2021. (**Point evaluation = 1 points**)
4. Award for outstanding results in the field of nanomaterials by the Ministry of Education, Youth and Sports of the Czech Republic - Ing. Ondřej Havelka – Supervisor of master thesis 2021, and first and corresponding author of manuscripts considered. (**Point evaluation = 1 points**)
5. Honorable mention within the CRYTUR 2021 Awards for the best diploma thesis in material sciences in the Czech Republic and Slovakia - Supervisor of master thesis 2021. (**Point evaluation = 1 points**)

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6. Dean's award of the Faculty of Mechatronics, Informatics and Interdisciplinary Studies from the TUL – Bachelor studies Bc. Jan Braun – Advisor of bachelor thesis 2022. (**Point evaluation = 1 points**)
7. Dean's award of the Faculty of Mechatronics, Informatics and Interdisciplinary Studies from the TUL – Master studies Ing. Sabrin Abdallah – Supervisor of master thesis 2022. (**Point evaluation = 1 points**)

2.7. Mimoř. pedag. aktivity (kurs Athens, Erasmus předn. pobyt) max.

(Point evaluation $3 \times 2 = 6$ points)

1. Lecturer of a short course entitled "Laser-mediated Synthesis of Nanomaterials: a Clean Pathway", Federal University of São Carlos, Brazil 2020. (**Point evaluation = 3 points**)
2. Lecturer of a short course entitled "Laser-mediated Synthesis of Nanomaterials", Rajamangala University of Technology Thanyaburi, Thailand 2023. (**Point evaluation = 3 points**)

2.8. Jiné výuk. odb. knižní publikace, didaktické pomůcky

(Point evaluation $1 \times 3 = 3$ points)

1. Lecturer of the seminar "Laser-induced synthesis of nanomaterials", Federal University of São Carlos, Brazil, 2020. (**Point evaluation = 3 points**)

III. AKADEMICKÁ, PROJEKTOVÁ A ORGANIZAČNÍ ČINNOST

3.1. Granty, zahr.pobyty a tvůrčí činnost

3.1.1. Jmenovaný člen řešit. týmu zahr. výzk. Grantu

(Point evaluation $1 \times 5 = 5$ points)

1. Czech Member of Committee COST project CA19123 - Protection, Resilience, Rehabilitation of damaged environment, 21/09/2020 - 20/09/2024 (APPENDIX A.10.).

3.1.2. Jmenovaný člen řešit. týmu českého výzk. Grantu

(Point evaluation $8 \times 3 = 24$ points)

1. ROZVOJ ÚSTAVU PRO NANOMATERIÁLY, POKROČILÉ TECHNOLOGIE A INOVACE TECHNICKÉ UNIVERZITY V LIBERCI (financial support of the Ministry of Education, Youth and Sports in the framework of the targeted support of the "National Program for Sustainability I), Institute for Nanomaterials, Advanced Technology and Innovation, Technical University of Liberec, (25.05.2017 - 31.12.2018), - LO1201, <https://www.isvavai.cz/cep?s=jednoduche-vyhledavani&ss=detail&n=0&h=LO1201> (Researcher). (**Point evaluation = 3 points**)
2. PROJECT OP VVV - HYBRID MATERIALS FOR HIERARCHIC STRUCTURES, Institute for Nanomaterials, Advanced Technology and Innovation, Technical University of Liberec, (01.01.2018 - 31.12.2022), - REG. No. CZ.02.1.01/0.0/0.0/16_019/0000843, https://www.isvavai.cz/cep?s=jednoduche-vyhledavani&ss=detail&n=0&h=EF16_019%2F0000843 (Senior Researcher). (**Point evaluation = 3 points**)

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3. FEMTO-MEMBRANE: Příprava nanoslitin pomocí femtosekundových laserových pulzů za účelem vylepšení membrán pro separaci olej/voda, (01.02.2020 - 31.12.2020). SGS-2020-4053, https://www.fp.tul.cz/images/fakulta/AS/podklady/Zprva_o_hospodaen_FP_2020.pdf (Researcher). (**Point evaluation = 3 points**)
4. Studium rolí ferátů a modifikovaného nanoželeza v aktivačním procesu persulfátů, (01.06.2019 - 30.06.2022), LTAUSA18078, <https://www.isvavai.cz/cep?s=jednoduche-vyhledavani&ss=detail&n=0&h=LTAUSA18078> (Researcher). (**Point evaluation = 3 points**)
5. Porézní biologické 2D membrány a 3D struktury vystavěné z polysacharidů funkcionálizovaných rostlinných gum a jejich environmentální aplikace, (01.01.2020 - 31.12.2022), LTAUSA19091, <https://www.isvavai.cz/cep?s=jednoduche-vyhledavani&ss=detail&n=0&h=LTAUSA19091> (Researcher). (**Point evaluation = 3 points**)
6. Nanomateriály a nanotechnologie pro ochranu životního prostředí a udržitelnou budoucnost, (01.01.2020 - 31.12.2022), LM2018124, <https://www.isvavai.cz/cep?s=jednoduche-vyhledavani&ss=detail&n=0&h=LM2018124> (Senior Researcher). (**Point evaluation = 3 points**)
7. LANDAU-WATER: Laserem sestavené recyklovatelné nanokatalyzátory k degradaci antibiotik nežádoucích ve vodních systémech, (01.02.2022 - 31.12.2023), SGS-2022-3008, <https://www.fm.tul.cz/veda-a-vyzkum/studentska-grantova-soutez/sgs-2022> (Researcher). (**Point evaluation = 3 points**)
8. SURRI: Sustainable Remediation Of Radionuclide Impacts On Land And Critical Materials Recovery, (01.01.2023 - 31.12.2025), 101079345, <https://cordis.europa.eu/project/id/101079345> (Researcher). (**Point evaluation = 3 points**)

3.1.3. výzkumná stáž v zahraničí min. 3 měs. (Point evaluation 1 x 4 = 4 points)

1. Visited the Federal University of São Carlos, Brazil, (01.09.2019 – 29.02.2020) with the fund Mezinárodní mobility výzkumných pracovníků na TUL (International Mobilities of Researchers at the TUL) (APPENDIX A.11.).

3.2. Služba komunitě

3.2.1. oponent. posudek (hab.,PhD)

(Point evaluation 1 x 1= 1 points)

1. Opponent of Ph.D. thesis of M.Sc. Alexandra Gimeno Furió, Ph.D. from the University Jaume I, Spain, in (08.04.2019). Thesis: On the use of nanofluids to enhance the direct absorption of solar radiation.

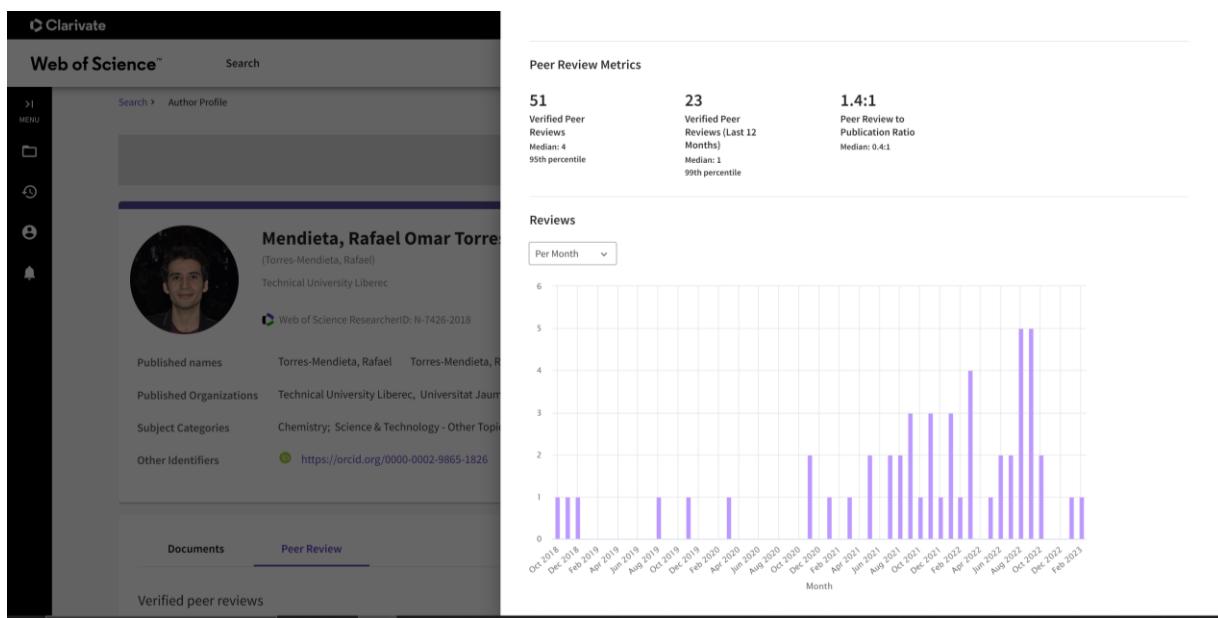
3.2.2. recenzní posudek pro časopis WoS/Scopus/ ERIH

(Point evaluation 51 x 1= 51 points)

51 reviews indexed in WoS (share 1/1, **Point evaluation = 51 points**)

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3.2.3. jiná aktivita

(share 1/1, Point evaluation $3 \times 1 = 3$ points)

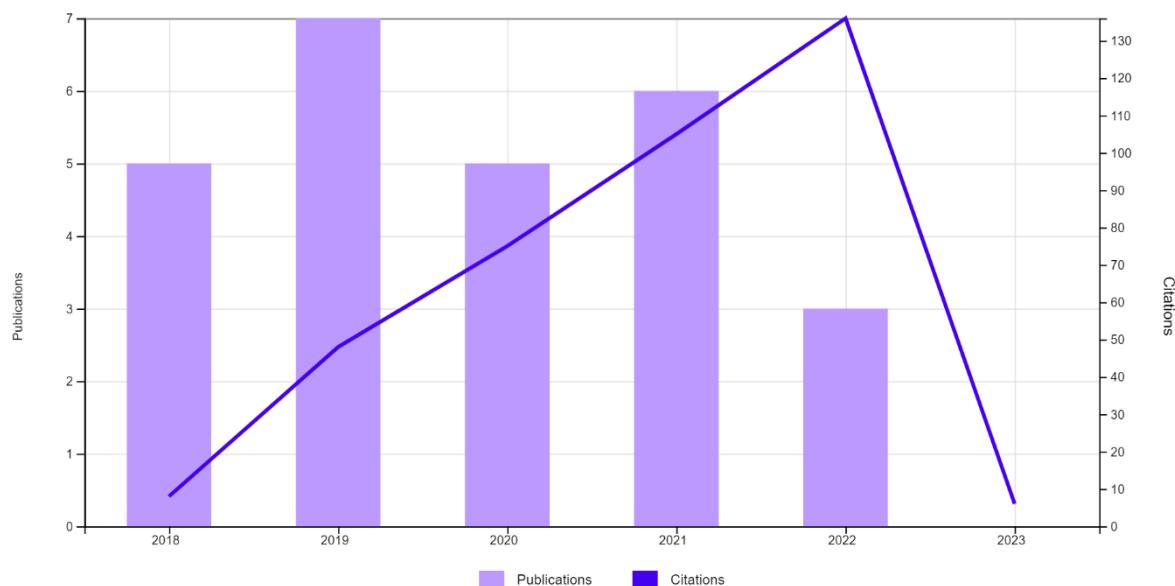
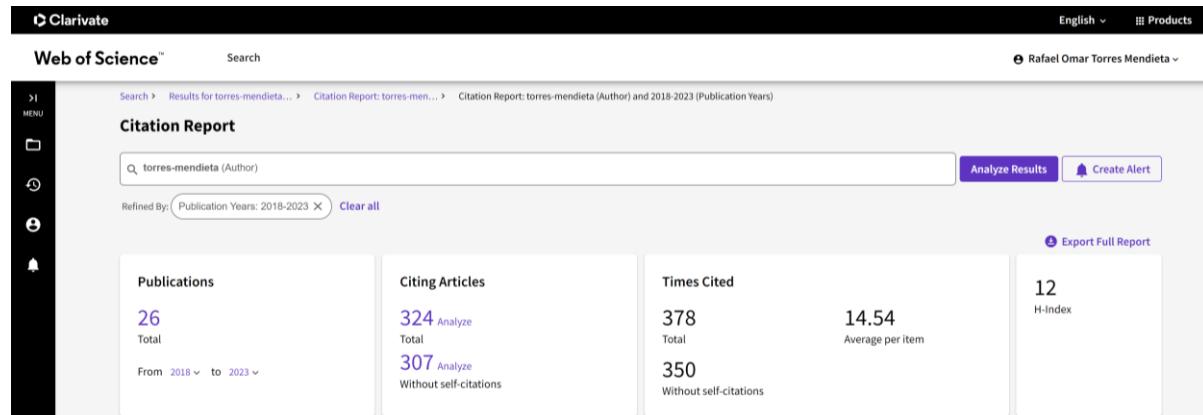
1. Evaluator of grant proposals in open calls of the National Science Centre panel ST8, Poland, in 2019. <https://www.ncn.gov.pl/en/finansowanie-nauki/dla-ekspertow>
2. Moderator at the 2nd Global Summit and Expo on Materials Science and Nanoscience (GSEMSN2022) held at Dubai, UAE, in 2022. <https://www.thescientistt.com/materials-science-nanoscience/2022/>
3. Mentor and commentator at the Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITEEx 2023), Thailand 2023. <https://ipitex.nrct.go.th/>

(APPENDIX A.13.).

APPENDIX

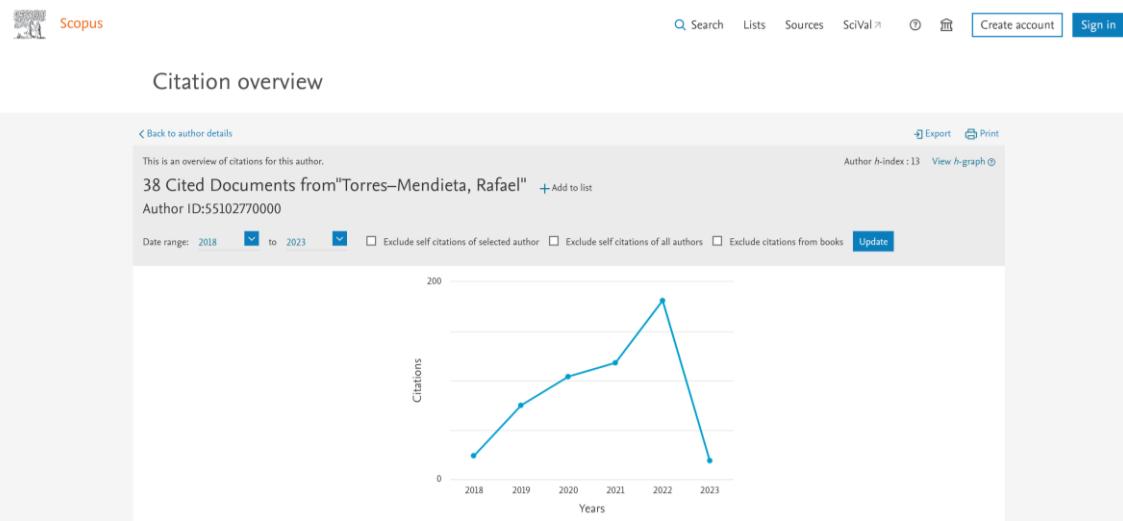
A.1. Citace

Citations in Web of Science (2018-2023)



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Citations in Scopus (2018-2023)



Source: Web of Science, 24th February 2023.

26 Publications	Sort by: Citations: highest first ▾	Citations							
		< Previous year Next year >					Average per year	Total	
		2019	2020	2021	2022	2023			
		Total	48	75	105	136	6	63	378
⊖ 1	Chemical oxidation and reduction of hexachlorocyclohexanes: A review Wasilewski, S; Silverstri, D; ...; Djomysou, DD Oct 1 2019 WATER RESEARCH 162 , pp.302-319	1	15	19	21	3	11.8	59	
⊖ 2	Fabrication by Laser Irradiation in a Continuous Flow Jet of Carbon Quantum Dots for Fluorescence Imaging Donate-Buendia, C; Torres-Mendieta, R; ...; Minguez-Vega, G Mar 2018 ACS OMEGA 3 (3) , pp.2735-2742	12	9	22	13	1	9.83	59	
⊖ 3	Towards the scale-up of the formation of nanoparticles on alpha-Ag ₂ WO ₄ with bactericidal properties by femtosecond laser irradiation Assis, M; Cordoncillo, E; ...; Andres, J Jan 30 2018 SCIENTIFIC REPORTS 8	9	7	6	6	1	5.5	33	
⊖ 4	A poly(3-hydroxybutyrate)-chitosan polymer conjugate for the synthesis of safer gold nanoparticles and their applications Silverstri, D; Wasilewski, S; ...; Varma, RS Nov 7 2018 GREEN CHEMISTRY 20 (21) , pp.4975-4982	9	9	4	7	0	4.83	29	
⊖ 5	Production of electrospun nanofibers based on graphene oxide/gum Arabic Silverstri, D; Miksicek, J; ...; Cernik, M Mar 1 2019 INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES 124 , pp.396-402	1	8	10	9	0	5.6	28	

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26 Publications	Sort by: Citations: highest first ▾	Citations						
		< Previous year					Next year >	
		2019	2020	2021	2022	2023	Average per year	Total
⊖ 6	Ag Nanoparticles/alpha-Ag ₂ WO ₄ Composite Formed by Electron Beam and Femtosecond Irradiation as Potent Antifungal and Antitumor Agents Assis, M.; Robredo, T.; ...; Longo, E. Jul 9 2019 SCIENTIFIC REPORTS 9	0	8	6	9	0	4.6	23
⊖ 7	Electrospun fibers based on botanical, seaweed, microbial, and animal sourced biomacromolecules and their multidimensional applications Kumar, K.P.; Zare, E.N.; ...; Varma, R.S. Feb 28 2021 Jan 2021 (Early Access) INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES 171, pp.130-149	0	0	8	8	0	5.33	16
⊖ 8	Laser and electron beam-induced formation of Ag/Cr structures on Ag ₂ CrO ₄ Lemos, P.S.; Silva, G.S.; ...; Longo, E. Mar 21 2019 PHYSICAL CHEMISTRY CHEMICAL PHYSICS 21 (11), pp.6101-6111	2	5	5	4	0	3.2	16
⊖ 9	Electrospun fibers based on carbohydrate gum polymers and their multifaceted applications Padil, V.V.T.; Cheong, J.Y.; ...; Varma, R.S. Nov 1 2020 CARBOHYDRATE POLYMERS 247	0	1	7	7	0	3.75	15
⊖ 10	Laser-induced formation of bismuth nanoparticles Assis, M.; Cordoncillo, E.; ...; Longo, E. May 28 2018 PHYSICAL CHEMISTRY CHEMICAL PHYSICS 20 (20), pp.13693-13696	8	3	1	1	0	2.5	15
⊖ 11	Modification of nZVI with a bio-conjugate containing amine and carbonyl functional groups for catalytic activation of persulfate Silventri, D.; Wacławek, S.; ...; Černík, M. Feb 15 2021 SEPARATION AND PURIFICATION TECHNOLOGY 257	0	0	3	11	0	4.67	14
26 Publications	Sort by: Citations: highest first ▾	Citations						
26 Publications	Sort by: Citations: highest first ▾	< Previous year					Next year >	
		2019	2020	2021	2022	2023	Average per year	Total
		1	2	2	7	0	2.4	12
⊖ 12	Femtosecond laser settings for optimal bracket bonding to zirconia Garcia-Sanz, V.; Paredes-Gallardo, V.; ...; Albaladejo, A. Mar 2019 LASERS IN MEDICAL SCIENCE 34 (2), pp.297-304	1	2	2	7	0	2.4	12
⊖ 13	Laser-synthesized Ag/TiO ₂ nanoparticles to integrate catalytic pollutant degradation and antifouling enhancement in nanofibrous membranes for oil-water separation Ettel, D.; Havalka, O.; ...; Torres-Mendieta, R. Oct 30 2021 Jun 2021 (Early Access) APPLIED SURFACE SCIENCE 564	0	0	0	9	1	3.33	10
Enriched Cited References								
⊖ 14	Laser/Electron Irradiation on Indium Phosphide (InP) Semiconductor: Promising Pathways to In Situ Formation of Indium Nanoparticles Assis, M.; Macedo, N.G.; ...; Longo, E. Nov 2018 PARTICLE & PARTICLE SYSTEMS CHARACTERIZATION 35 (11)	4	3	1	1	0	1.5	9
⊖ 15	PVDF nanofibrous membranes modified via laser-synthesized Ag nanoparticles for a cleaner oily water separation Torres-Mendieta, R.; Yalcinkaya, F.; ...; Bryjak, M. Oct 1 2020 APPLIED SURFACE SCIENCE 526	0	0	4	4	0	2	8
⊖ 16	Laser-induced fragmentation of carbonyl iron as a clean method to enhance magnetorheological effect Cvek, M.; Torres-Mendieta, R.; ...; Černík, M. May 1 2020 JOURNAL OF CLEANER PRODUCTION 254	0	1	3	4	0	2	8

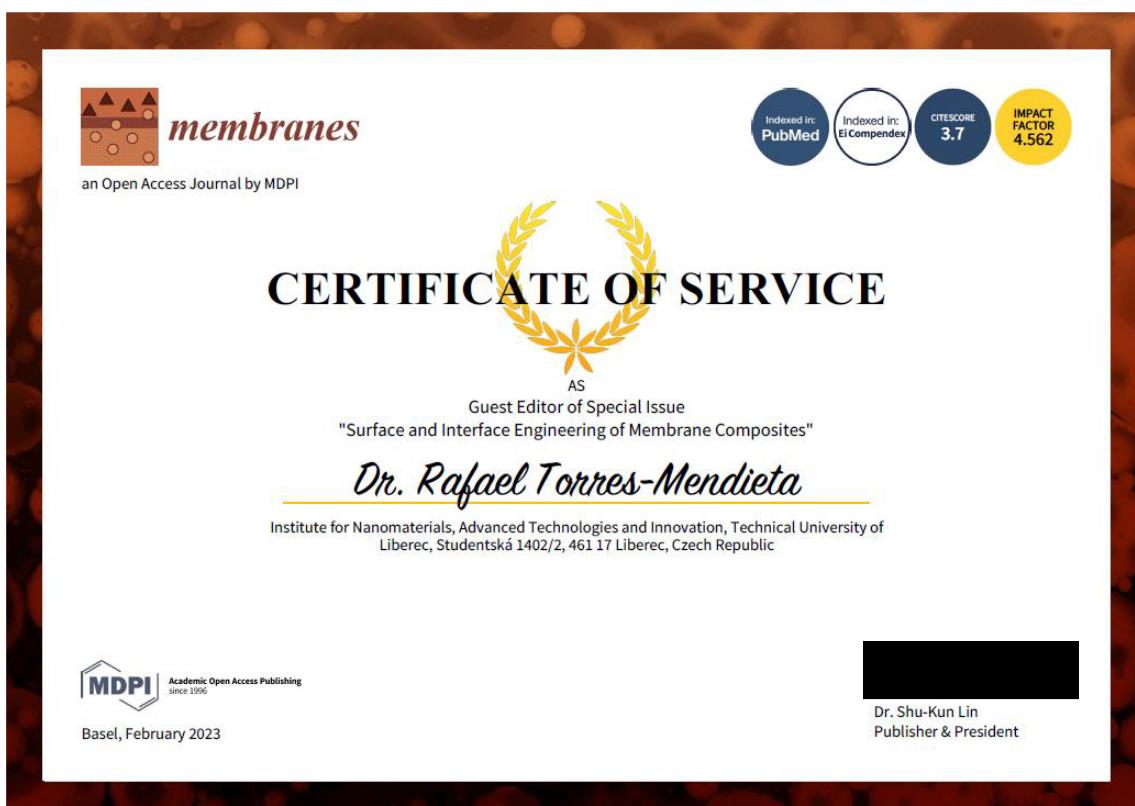
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26 Publications	Sort by: Citations: highest first ▾	Citations						
		< Previous year		Next year >			Average per year	Total
		2019	2020	2021	2022	2023		
Laser-assisted synthesis of Fe-Cu oxide nanocrystals								
17	Torres-Mendieta, R.; Havalka, O.;(...); Cernik, M. 5th International Conference on Advanced Nanoparticle Generation and Excitation by Lasers in Liquids (ANGEL) Mar 1 2019 APPLIED SURFACE SCIENCE 469 , pp.1007-1015	1	4	1	2	0	1.6	8
18	Silvestri, D.; Krawczyk, K.;(...); Waclawek, S. Aug 14 2021 Jul 2021 (Early Access) CHEMICAL COMMUNICATIONS 57 (63) , pp.7814-7817	0	0	2	5	0	2.33	7
19	Sustainable and safer nanoclay composites for multifaceted applications Padil, VVT; Kumar, KPA;(...); Varma, RS Mar 2022 (Early Access) GREEN CHEMISTRY	0	0	0	4	0	2	4
On the Use of Laser Fragmentation for the Synthesis of Ligand-Free Ultra-Small Iron Nanoparticles in Various Liquid Environments								
20	Havalka, O.; Cvet, M.;(...); Torres-Mendieta, R. Jun 2021 NANOMATERIALS 11 (6)	0	0	0	2	0	0.67	2
Enriched Cited References								
SYNERGISTIC EFFECT OF NANO ZERO-VALENT IRON AND CYCLODEXTRINS: A NANO-STRUCTURE FOR WATER PURIFICATION								
21	Krawczyk, K.; Waclawek, S.;(...); Cernik, M. 11th International Conference on Nanomaterials - Research and Application (NANOCON) 2020 11TH INTERNATIONAL CONFERENCE ON NANOMATERIALS - RESEARCH & APPLICATION (NANOCON 2019) , pp.279-286	0	0	1	1	0	0.5	2
26 Publications								
Citations								
Sort by: Citations: highest first ▾		< Previous year		Next year >			Average per year	Total
		2019	2020	2021	2022	2023		
Toward Expanding the Optical Response of Ag₂CrO₄ and Bi₂O₃ by Their Laser-Mediated Heterojunction								
22	Torres-Mendieta, R.; Teixeira, MM;(...); Longo, E. Dec 3 2020 JOURNAL OF PHYSICAL CHEMISTRY C 124 (48) , pp.26404-26414	0	0	0	1	0	0.25	1
Enriched Cited References								
Growth suppression of bacteria by biofilm deterioration using silver nanoparticles with magnetic doping								
23	Torres-Mendieta, R.; Nguyen, NHA;(...); Amendola, V. Dec 15 2022 Nov 2022 (Early Access) NANOSCALE 14 (48) , pp.18143-18156	0	0	0	0	0	0	0
Enriched Cited References								
Stable Magnetorheological Fluids Containing Bidisperse Fillers with Compact/Mesoporous Silica Coatings								
24	Cvet, M.; Jamatia, T.;(...); Torres-Mendieta, R. Oct 2022 INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES 23 (19)	0	0	0	0	0	0	0
Enriched Cited References								
EXPANSION OF OPTICAL PROPERTIES IN TiO_x NANOPARTICLES BY THEIR LASER-MEDIATED ALLOYING WITH AG								
25	Etel, D.; Havalka, O.;(...); Torres-Mendieta, R. 12th International Conference on Nanomaterials - Research and Application (NANOCON) 2021 12TH INTERNATIONAL CONFERENCE ON NANOMATERIALS - RESEARCH & APPLICATION (NANOCON 2020) , pp.109-115	0	0	0	0	0	0	0
Fluorescence cell imaging using carbon quantum dots generated by continuous fragmentation								
26	Donate-Buendia, C.; Torres-Mendieta, R.;(...); Munoz-Vega, G. Conference on Synthesis and Photonics of Nanoscale Materials XVI 2019 SYNTHESIS AND PHOTONICS OF NANOSCALE MATERIALS XVI 10907	0	0	0	0	0	0	0

Citation Report Publications Table

A.2. Redakční rada časopisu WoS/Scopus/ERIH



A.3. Ocenění prestižních organizací



Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

PRIZE AWARD AGREEMENT No 16555-2021-JS-002
(FINANCIAL SUPPORT TO THIRD PARTY)

**2021 JumpStarter (Business Idea Incubation Competition)
for Innovation in Raw Materials**
(**the Competition**)

under the EIT/ KIC RawMaterials financial support to third parties' programme

This Prize Award Agreement ("this Agreement" or "Scholarship Award Agreement") is made on
02/12/2021

by and between

1. on the one part,

EIT RawMaterials CLC East sp. z o.o. established in Al. Mickiewicza 30, 30-059 Krakow, Poland, registered with statutory registration number: 0000594829, VAT registration number: PL 8943071532
(**CLC LE**)

and

2. on the other part,

the team ("the Team") participating in the Competition comprising of (each a "Team Member" and together "the Team Members") "Nano Pure Precision"
c/o, Rafael Omar Torres Mendieta
ID number: Mexico – G09476940
(the Team collectively or, if a competing individual, the individual also "TP" or "Third Party")

CLC LE and TP hereinafter each a "Party" and collectively "the Parties",

relating to the business idea proposed by TP for the Competition ("the Business Idea" or "BI") entitled "**Nano Pure Precision**".

WHERAS

- (A) CLC LE is a wholly-owned subsidiary of EIT RawMaterials GmbH, 10789 Berlin, Germany ("**KIC LE**") which, together with the other members of the Knowledge and Innovation Community EIT RawMaterials ("**KIC**"), has signed, with the European Institute of Innovation and Technology ("**EIT**"), a certain Framework Partnership Agreement No. [FPA 2016/EIT/EIT Raw Materials] ("**FPA**") and Specific Grant Agreement No. [EIT/ EIT RAW MATERIALS/SGA2020] ("**SGA**");
- (B) Part of the KIC's activities incumbent upon KIC LE is to promote the development of ideas and projects in the field of raw materials by supporting start-up and idea-holding companies and/or physical persons;
- (C) The KIC aims to significantly enhance innovation rates in the (mineral and metallic) raw materials sector through any therefor needed Incubator & Business Creation Services, initiating, supporting and scaling up business ideas contributing to the overall KIC's objectives at any stage within the Innovation Funnel with any kind of services needed, with the goal of helping to finally turn the business idea into an innovation;
- (D) The KIC evaluates and decides if and how to support ideas – inter alia – by recognising, that a project fits into its innovation scope and thus does offer potential benefit to its consortium, and that with its support it helps to bring some novel solution successfully to the market;
- (E) The KIC activities also address the objectives and key principles of the EIT Regional Innovation Scheme (RIS) concept to provide access to activities and services of the KIC to those who might not otherwise have this access. The activities will thus also raise the awareness of the RIS regions and countries towards EIT and the KIC, but primarily will have a significant impact on these regions and countries itself by fostering innovation and entrepreneurship;
- (F) KIC LE has designated CLC LE as its acting legal entity for the Competition referred to;
- (G) TP has proposed to CLC LE the BI within the framework of the Competition according to the terms of the Competition published by CLC LE on its web site ("**the Competition Terms**");

A.4. Vyzvaná přednáška na mezinárodní vědecké konferenci



01.08.2021

Dr. Rafael Omar Torres Mendieta
Institute for Nanomaterials, Advanced Technologies and Innovation, Technical University of Liberec
Czech Republic
Email: Rafael.Torres@tul.cz

Dear Dr. Rafael Omar Torres Mendieta,

We are pleased to invite you to the International Conference on Nanomaterials, Nanofabrication and Nanocharacterization (2nd NANOMACH), which will be held on October 17-23, 2021 in Oludeniz, TURKEY (<http://www.nanomach.org/>).

It is an honor and privilege to invite you to participate in this Congress as an Invited Speaker on "Nanoparticles/Nanofibers/Nanowires/Nanotubes/Nanosheets". We believe that your contribution to this field is unparalleled and a speech on this topic will be of great benefit.

We have not yet established on which day your talk would be scheduled; should you accept this invitation, there is some flexibility that we can use to accommodate your own scheduling preferences. Invited talks will be 30 minutes long, including a 10 minute question-answer session.

In appreciation of your agreement to provide an invited talk, NANOMACH would waive 50% of the registration fee to the congress (not inclusive of accommodation-Invited speakers are urged to stay in the congress hotel). In case you bring one of your graduate students with you, he/she would also receive the 50% waiver in the registration fee.

I do very much hope that you will be able to accept this invitation.

[REDACTED]
Ahmet Yavuz Oral, PhD
Congress Planning Chair
Department of Materials Science & Engineering
Gebze Technical University, Turkey
E-mail: [REDACTED]

Scientific Secretariat Phone: [REDACTED] http://www.nanomach.org/	Chair Ahmet Yavuz Oral	Congress Secretariat AIGTUR Atatürk Cad No:1 Tever Apt. D:11 Sahrayicedid 34734 Kadikoy Istanbul TURKEY
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GSEMSN2022
October 17-19, 2022 | Dubai, UAE

July 08, 2022

Dr. Rafael Omar Torres Mendieta
Technical University of Liberec, Czech Republic

Invitation to Speak at the GSEMSN2022

Dear Dr. Rafael Omar Torres Mendieta,

On behalf of the organizing committee and The Scientistt, We would like to invite you to join and deliver an Invited talk with the title “Laser-assisted Generation of Ultra-small Iron Nanoparticles” at the 2nd Global Summit and Expo on Materials Science and Nanoscience (GSEMSN2022) taking place in Dubai, UAE from October 17-19, 2022.

The GSEMSN2022 is the vital platform for exchanging recent achievements and discussing future facilities in Materials Science and Nanoscience.

The GSEMSN2022 aims to be a unique platform for leading scientists, researchers, scholars and engineers from academia, R&D laboratories and industry around the world to exchange, share and learn the most recent advancements on various aspects related to Materials Science and Nanoscience.

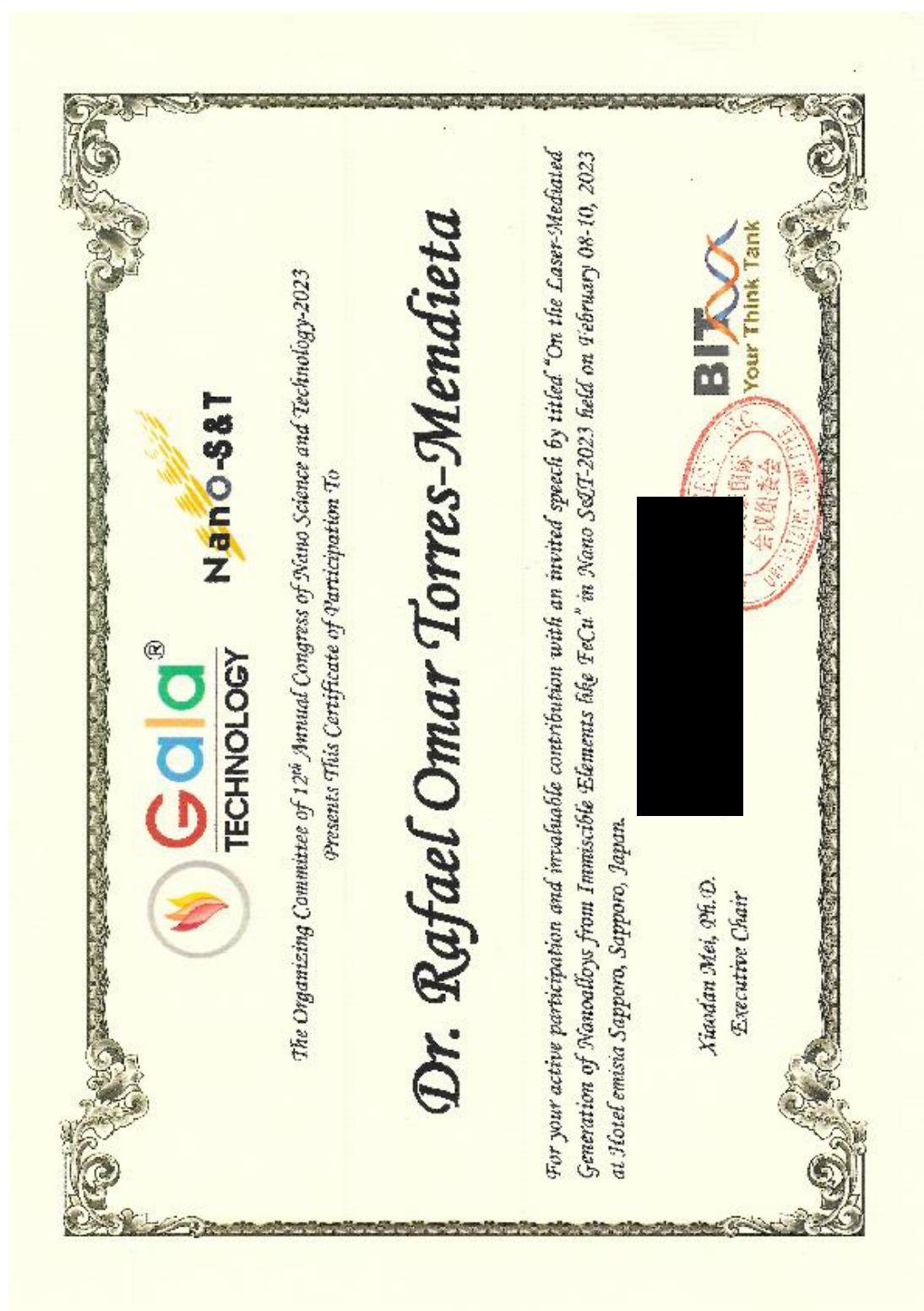
This conference provides a wonderful opportunity for you to enhance your knowledge about the newest interdisciplinary approaches in Materials Science and Nanoscience. Moreover, the conference offers a valuable platform to create new contacts in the field, by providing valuable networking time for you to meet great personnel in the field.

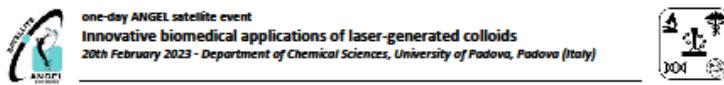
For more information, PS: <https://www.thescientistt.com/materials-science-nanoscience/2022/>

Looking forward to working with you at the GSEMSN2022 and trust it will prove to scientifically stimulating experience.

Sincerely yours,

E L Akshaya
Conference Manager
GSEMSN2022
The Scientistt





Official Certificate

Rafael Omar Torres Mendieta

Technical University of Liberec

attended the

one-day ANGEL satellite event

**Innovative biomedical
applications of laser-generated
colloids**

held at the

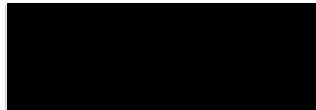
Department of Chemical Sciences

University of Padova - Padova (Italy)

on 20th February 2023

Padova, 20 February 2023

The Conference Chair



A.5. Aktivní doktorand po SDZ - školitel nebo školitel specialist

Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.



Rafael Omar Torres Mendieta

V Liberci dne 14. 7. 2021
č.j. 21/7117/0056/SK

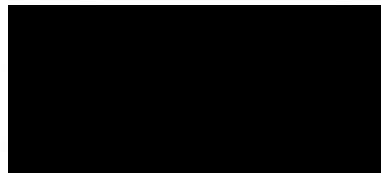
Vážený pane doktore,

na základě návrhu školitele prof. Dr. Ing. Miroslava Černíka, CSc., Vašeho souhlasu a v souladu se Studijním a zkušebním řádem Technické univerzity v Liberci, Článek 15, odstavec (2), Vás s účinností od **1. 7. 2021** jmenuji **konzultantem** doktoranda



Jmenovaný doktorand je studentem studijního programu P0788D270007 Aplikované vědy v inženýrství, forma studia prezenční. Školitelem doktoranda je prof. Dr. Ing. Miroslav Černík, CSc.

S přáním mnoha pracovních úspěchů



Vyřizuje:



Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.



CONFIRMATION

about the pedagogical activity of Dr. Rafael Omar Torres Mendieta

I hereby confirm that Dr. Rafael Omar Torres Mendieta, [REDACTED] is co-supervisor for the Ph.D. student [REDACTED] who is studying in Environmental Engineering, FM, TUL.

The thesis topic is „Laser Modified Electrospun Nanofiber Membranes for Microbial Fuel Cells“.

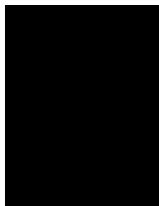
Dr. Rafael Omar Torres Mendieta showed himself as a dedicated and talented teacher and co-supervisor.

Sincerely,

doc. Fatma Yalcinkaya, Ph.D., M.Sc.

Liberec, 11.09.2022

Supervisor



Podklady pro habilitační řízení na FM TUL

M.Sc. Rafael Omar Torres Mendieta, Ph.D.



Rafael Omar Torres Mendieta

V Liberci dne 21. 6. 2022
č.j. 22/7117/0034/8K

Vážený pane doktore,

na základě návrhu školitele prof. Dr. Ing. Miroslava Černíka, CSc., Vysloho souhlasu a v souladu se Studijním a zkoušebním řádem Technické univerzity v Liberci, Článek 15, odstavec (2), Vás s účinností od **1. 10. 2022** jmenuji **konzultantem** doktorandy



Jmenovaný dekorand je studentem studijního programu P0788D270007 Aplikované vědy v inženýrství, forma studia prezenční. Školitelem doktoranda je prof. Dr. Ing. Miroslav Černík, CSc.

S přáními mnoha pracovních úspěchů



Vážený pane

WWW: <http://is.tul.cz> E-mail: is@tul.cz Poštová adresa: Technická univerzita v Liberci, Řečkovova 1, 461 17 Liberec

E-mail: is@tul.cz

A.6. Vedoucí úspěšně obhájené diplomové práce a Vedení studentského projektu / sem

Welcome My teaching Browse IS/StAG IS/StAG Quality of teaching Applicant Graduate

Browse IS/StAG (S025)

Lecturer

Department/Unit % Surname % Torres Name % Only current lecturers Only employees who teach Search

Found 1 records Export to xls

Torres, Rafael Dr. NTI rafael.torres@tul.cz

Order	Ac. year given	Department	Name	Pers.no.	Year of st.	Status	Thesis title	Relation to th.	Type of thesis
1.	2021/2022	NTI		M20000156	2	does not study	Rizení prvkov distribuovaných laserem syntetizovaných Pd/FexO nanočástic dostupnou a konkurenčeschopnou produkci nanočástic	Supervisor	Master Thesis
2.	2021/2022	NTI		M19000175	2	does not study	Konstrukce a automatizace provozu experimentálního laserového ablačního systému pro cenově dostupnou a konkurenčeschopnou produkci nanočástic	Supervisor	Master Thesis
3.	2021/2022	KCH		M18000120	3	does not study	Rizení kvantitativního prvkového složení laserem syntetizovaných nanokoloidů zlato-nik	Consultant from the university	Bachelor Thesis
4.	2020/2021	NTI		M19000143	2	does not study	Laser-generated synthesis of Pd-Ni nanalloys usable as catalysts	Supervisor	Master Thesis
5.	2018/2019	KCH		M16000165	2	does not study	Integroace sulfidu molybdeničitého a molekulárních tenkých vrstev v zařízeních pro molekulární elektroniku a spintroniku	Opponent	Master Thesis
6.	2018/2019	KCH		M16000109	3	does not study	Generování Fe nanokastrů pomocí laserové syntézy	Supervisor	Bachelor Thesis

Unfinished thesis (R). Thesis finished but defended unsuccessfully (DBUO). Thesis submitted, discontinued after an unsuccessful defence (OPUBOO). Thesis finished and defended successfully (DUO). Thesis not finished (N). Thesis submitted, discontinued without attempting defence (OPUBOO).

A.7. Vedení oceněné studentské práce

 TECHNICKÁ UNIVERZITA V LIBERCI
www.tul.cz

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DSpace Home → Oceněné závěrečné práce → Fakulta mechatroniky, informatiky a mezioborových studií → Cena rektora za vynikající bakalářskou práci

Cena rektora za vynikající bakalářskou práci

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[Laser-mediated Synthesis of Iron Nanoclusters](#)

V této bakalářské práci je zkoumána syntéza nanoklastrů železa, které jsou produkovány pomocí metody laserové syntézy. Syntetický přístup spočívá ve zmenšování velikosti železných mikročastic účinkem fototermálního vypařování ...

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Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

**REKTOR
TECHNICKÉ UNIVERZITY V LIBERCI**

v souladu se Studijním a zkoušehním řádem Technické univerzity v Liberci, Článkem 14, odst. (7)
a na základě návrhu děkana Fakulty mechatroniky, informaticky a mezioborových studií
Technické univerzity v Liberci

uděluje

**CENU REKTORA
Technické univerzity v Liberci**

studentovi jménem:

[REDAKTOVÁNO]

za vynikající celkový výsledek studia.

Cena je spojena s finančním ohodnocením 10.000 Kč.

V Liberci dne 30. června 2021



[REDAKTOVÁNO]
doc. RNDr. Miroslav Brzežina, CSc.
rektor

Podklady pro habilitační řízení na FM TUL

M.Sc. Rafael Omar Torres Mendieta, Ph.D.

The screenshot shows the official website of the Czech Ministry of Education, Youth and Sports (MŠMT). At the top, there is a logo of the ministry, followed by the text "MINISTERSTVO ŠKOLSTVÍ, MLÁDEŽE A TĚLOVÝCHOVY". On the right side, there are links for "Přihlášení" (Login), "Registrace" (Registration), and a British flag icon. Below the main menu, there is a secondary navigation bar with categories: MINISTERSTVO, VZDĚLÁVÁNÍ, MLÁDEŽ, SPORT, VÝZKUM A VÝVOJ, EU A ZAHRANIČÍ, and FONDY EU. The "VZDĚLÁVÁNÍ" category is highlighted with an orange underline. The breadcrumb trail at the bottom left indicates the current page path: Titulní stránka / Vzdělávání / Vysoké školy / Ceny ministra / Cena ministra pro vynikající studenty a absolventy.

CENA MINISTRA PRO VYNIKAJÍCÍ STUDENTY A ABSOLVENTY



Ministerstvo školství, mládeže a tělovýchovy vyhlašuje výzvu k předložení návrhů na udělení Ceny ministra školství, mládeže a tělovýchovy pro vynikající studenty a absolventy studia ve studijním programu a za mimořádné činy studentů prokazující občanskou statečnost, odpovědnost nebo obětavost, která se uděluje studentovi či studentce nebo absolventovi či absolventce bakalářského, magisterského nebo doktorského studijního programu.

Ministerstvo školství, mládeže a tělovýchovy vyhlašuje výzvu k předložení návrhů na udělení Ceny ministra školství, mládeže a tělovýchovy pro vynikající studenty a absolventy studia ve studijním programu a za mimořádné činy studentů pro rok 2022.

Cena ministra se uděluje vynikajícím studentům nebo absolventům bakalářského, magisterského nebo doktorského studijního programu za mimořádné výsledky ve studiu nebo ve vědecké, výzkumné, vývojové a inovační, umělecké nebo další tvůrčí činnosti související se studiem v daném studijním programu. Dále se tato cena uděluje studentovi nebo absolventovi bakalářského, magisterského nebo doktorského studijního programu za mimořádný čin prokazující občanskou statečnost, odpovědnost nebo obětavost.

Konkrétní podmínky obsahuje **Statut Ceny ministra školství, mládeže a tělovýchovy pro vynikající studenty a absolventy studia ve studijním programu a za mimořádné činy studentů**. Ocenění tvoří diplom a další věcné nebo peněžní ocenění v hodnotě do 50 000 Kč. V kalendářním roce může být uděleno **nejvýše 10** fěchtovocenění.

Návrhy na udělení Ceny mohou rektori vysokých škol podávat do **31. srpna 2022** odboru vysokých škol na emailovou adresu cena_vs@msmt.cz, a to jak v podepsané verzi (naskenované nebo s elektronickým podpisem), tak ve formátu doc nebo docx. Nominační formulář na udělení ceny a Statut ceny jsou k dispozici níže:

[Návrh na Cenu ministra školství - 2022 - formulář docx](#)

[Statut Ceny ministra školství, mládeže a tělovýchovy pro vynikající studenty a absolventy studia ve studijním programu a za mimořádné činy studentů pdf](#)

Kontaktní osoba:

Bc. Adéla Krejčová, DiS.

Odbor vysokých škol

Karmelitská 529/5

118 12 Praha 1 - Malá Strana

E: adela.krejcová@msmt.cz

T: (+420) 234 812 262

W: www.msmt.cz

SEZNAM LAUREÁTŮ CENY MŠMT ZA ROK 2021

Cenu za mimořádný čin studentů získala **MUDr. Markéta Malecová** (3. lékařská fakulta Univerzity Karlovy) - za dobrovolnictví v dětské nemocnici Whisper v Ugandě a založení nadacní fondu, pomocí něhož jsou získávány dary i na specifické projekty pro dětské pacienty v Ugandě.

Cenu v bakalářském studijním programu ziskali:

Jan Čonka (Hudební a taneční fakulta Akademie múzických umění v Praze) - za hru na kytaru, při které vyniká technikou, výjimečnou muzikalitou a všeobecností, a tím patří mezi nejvýraznější osobnosti nastupující generace českých kytaristů.

Bc. Štěpán Macek (Fakulta stavební Vysokého učení technického v Brně) - za využití odpadových plastů jako druhotné suroviny ve stavebnictví a spojení architektury s obnovitelnými materiály.

Cenu v magisterském studijním programu ziskali:

Ing. Ondřej Havelka (Fakulta mechatroniky, informatiky a mezioborových studií Technické univerzity v Liberci) - za výsledky v oblasti laserové syntézy a vývoji nanofiltráčních membrán, které lze využít v mnoha oblastech jako je medicína, ekologie či chemie.

Ing. Michal Sauer – (Fakulta materiálově – technologická Vysoká škola báňská – Technické univerzity Ostrava) – za řešení vědecko-výzkumných úkolů v oblasti objemového tváření progresivních kovových materiálů, kde jeho diplomová práce na toto téma měla praktický přínos pro optimalizaci teplotně řízeného válcování mikrolegované

Ukrajina - informace pro oblast VŠ

Aktuality

Strategické materiály

Analytické materiály

Mezinárodní kontext

Režim student

Uznávání zahraničního vzdělání

Legalizace - vyšší ověření vysokoškolských diplomů a dodatků k diplomům ČR pro zahraničí

Přehled vysokých škol v ČR

Seznam akreditovaných studijních programů v ČR

Národní akreditační úřad pro vysoké školství

Legislativa a metodické pokyny pro vysoké školy

Poskytovatelé zahraničního vysokoškolského vzdělání na území ČR

Financování vysokých škol

Rozvojové a dotační programy

Habilitační řízení a řízení ke jmenování profesorem

RUV - Registr uměleckých výstupů

Studenti, stipendia a podpora studentů

Ceny ministra

▶ **Cena ministra školství, mládeže a tělovýchovy za vynikající vzdělávací činnost na vysoké škole**

▶ **Cena ministra pro vynikající studenty a absolventy**

Registry a číselníky, statistika, data

Ochrana osobních údajů

Projekty MŠMT

Odkazy

Podklady pro habilitační řízení na FM TUL

M.Sc. Rafael Omar Torres Mendieta, Ph.D.



Competition for the best diploma
thesis in materials science

[Introduction](#) [About the competition](#) [Winning work](#) [Photo gallery](#) [News](#) [Contact](#)

Honorable Mention

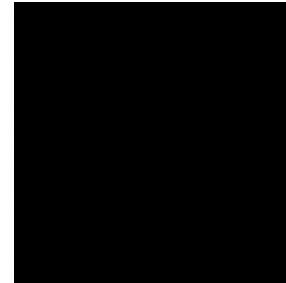
Laser-generated synthesis of Pd-Ni nanoalloys usable as catalysts

Thesis supervisor: M.Sc. Rafael Omar Torres Mendieta, Ph.D.
Faculty of Mechatronics, Informatics and Interdisciplinary Studies, Technical University of Liberec

ABSTRACT WORK

At the Technical University of Liberec, Ondřej is engaged in research in the field of nanotechnologies and nanosciences, especially the synthesis of chemically pure nanomaterials using special pulsed lasers. Thanks to the interaction of intense rays of light with materials immersed in the liquid, the team was able to create intelligent fluids from ultra-small iron nanoparticles, combine immiscible elements to form unconventional nanoalloys, or modify the surface of nanofiber membranes to improve their ability to obtain clean water from extremely polluted sources. During his years of interdisciplinary research, Ondřej has successfully established cooperation with several international laboratories, namely at the University of Padua, the Silesian University of Technology, and the Central European Institute of Technology CEITEC.

Now Ondřej is working on solving the world's biggest problem in the field of laser synthesis - determining the internal structure of bimetallic nanoparticles, which can lead to important advances in areas such as nanomedicine, nanocatalysis and environmental chemistry. In addition, the breakthrough will lead to a step forward, making laser synthesis a major competitor to modern chemical methods for preparing nanoparticles. The creation of a new laser industry will thus make it possible to avoid the paradoxical scenario of drowning in chemical waste from the preparation of nanomaterials, which were originally intended to help us.



Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

**FAKULTA MECHATRONIKY,
INFORMATIKY A MEZIOBOROVÝCH
STUDIÍ TUL**



V Liberci dne 28. června 2022
č.j.: TUL22/7817/043353
JID: TUL1001180244

Vážený pane bakaláři,

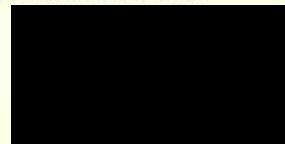
na základě doporučení zkušební komise pro SZZ, které se konaly dne 16. června 2022 a v souladu se Směrnici děkana č. 2/2017 o stipendiích za vynikající studijní výsledky studentů bakalářských a navazujících magisterských studijních programů Fakulty mechatroniky, informatiky a mezioborových studií TU v Liberci Vám za vynikající bakalářskou práci s názvem "**Řízení kvantitativního prvkového složení laserem syntetizovaných nanokoloidů zlato-niki**" uděluji

C E N U D Ě K A N A .

S tímto oceněním je spojeno finanční ohodnocení ve výši

4.000,- Kč.

K tomuto vynikajícímu studijnímu výsledku Vám upřímně blahopfeji.



Vážený pan

absolvent bakalářského studijního programu B3942 Nanotechnologie, obor Nanomateriály

Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

FAKULTA MECHATRONIKY,
INFORMATIKY A MEZILOBOROVÝCH
STUDIÍ TUL



V Liberci dne 28. června 2022
č.j.: TUL22/7817/043353
JID: TUL1001180244

Vážený pane inženýre,

na základě doporučení zkušební komise pro SZZ, které se konaly dne 14. června 2022 a v souladu se Směrnicí děkana č. 2/2017 o stipendích za vynikající studijní výsledky studentů bakalářských a navazujících magisterských studijních programů Fakulty mechatroniky, informatiky a mezilborových studií TU v Liberci Vám za vynikající diplomovou práci s názvem "**Řízení prvkové distribuce laserem syntetizovaných Pd/FeOx nanočástic**" uděluji

C E N U D Ě K A N A .

S tímto oceněním je spojeno finanční ohodnocení ve výši

5.000,- Kč.

K tomuto vynikajícímu studijnímu výsledku Vám upřímně blahopřeji.



Vážený pan

absolvent navazujícího magisterského studijního programu N0719A270001
Nanotechnologie

Technická univerzita v Liberci | Fakulta mechatroniky, informatiky a mezilborových studií | děkanát
Studentská 1402/2, 461 17 Liberec 1 | www.fm.tul.cz

1 / 1

A.8. Mimoř. pedag. aktivity (kurs Athens, Erasmus předn. pobyt) max



S T A T E M E N T

PROF. DR. RAFAEL OMAR TORRES MENDIETA (*Technical University of Liberec, República Tcheca*) taught the discipline “CHEM.200-11/20 Topics in Chemistry: *Laser-mediated Synthesis of Nanomaterials: a Clean Pathway*”, one credit, with 15 hours of activities from 10 to 14 on February, 2020, offered to students enrolled in the Graduate Program in Chemistry at the Federal University of São Carlos.

São Carlos, February 14th, 2020.

Prof. Dr. Marcio Weber Padua
Graduate Studies Coordinator

UNIVERSIDADE FEDERAL DE SÃO CARLOS
Rodovia Washington Luiz, Km 235
CEP 13.565-905 – São Carlos-SP

PROGRAMA DE PÓS-GRADUAÇÃO EM QUÍMICA

Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.



MJESI 06-19.01/5003

Rajamangala University of Technology
Thanyaburi, Office of the President
39, Village No. 1, Rangsit-Nakorn Nayok Rd.,
Klung Hok, Thanyaburi, Pathumthani 12110,
Thailand

[REDACTED]

29 December B.C. 2565 (2022)

Rafael Omar Torres Mendieta, Ph.D.
Institute for Nanomaterials, Advanced Technology and Innovation,
Technical University of Liberec,
Bendlova 1409/7 Liberec 1 460 01 Czech Republic

Subject: Invitation Letter

Dear Rafael Omar Torres Mendieta, Ph.D.:

I am delighted to extend my warmest greetings to you!

On behalf of Rajamangala University of Technology Thanyaburi, I am very pleased to extend my cordial and warmest invitation to you as a visiting lecturer at Rajamangala University of Technology Thanyaburi on campus.

The said visit shall start from January 14, 2023 to February 5, 2023. I appreciate your kind acceptance of the visit schedule.

Rafael Omar Torres Mendieta, Ph.D., it is with great honor on my part to have your presence on our campus. Please accept my highest consideration to invite you to visit our university on the above-mentioned date.

We are looking forward to welcoming you soon.

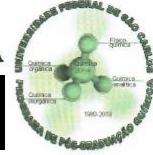
Sincerely yours,


[REDACTED]
Assoc. Prof. Somitta Presa-Art, Ph.D.
President, Rajamangala University of Technology Thanyaburi

A.9. Jiné výuk. odb. knižní publikace, didaktické pomůcky



UNIVERSIDADE FEDERAL DE SÃO CARLOS
PROGRAMA DE PÓS-GRADUAÇÃO EM QUÍMICA
Rodovia Washington Luís, Km. 225



TO WHOM IT MAY CONCERN

We declare that, on this date, **Dr. Rafael Omar Torres Mendieta** (Institute for Nanomaterials, Advanced Technologies and Innovation Technical - University of Liberec) gave a lecture entitled "**Laser - induced synthesis of nanomaterials**" at the PPGQ (Graduate Program of Chemistry) at the Federal University of São Carlos, São Carlos-SP, Brazil.

São Carlos, February 06, 2020.

[Redacted]
Prof. Dr. Marcio Weber Paixão
Program Coordinator

Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

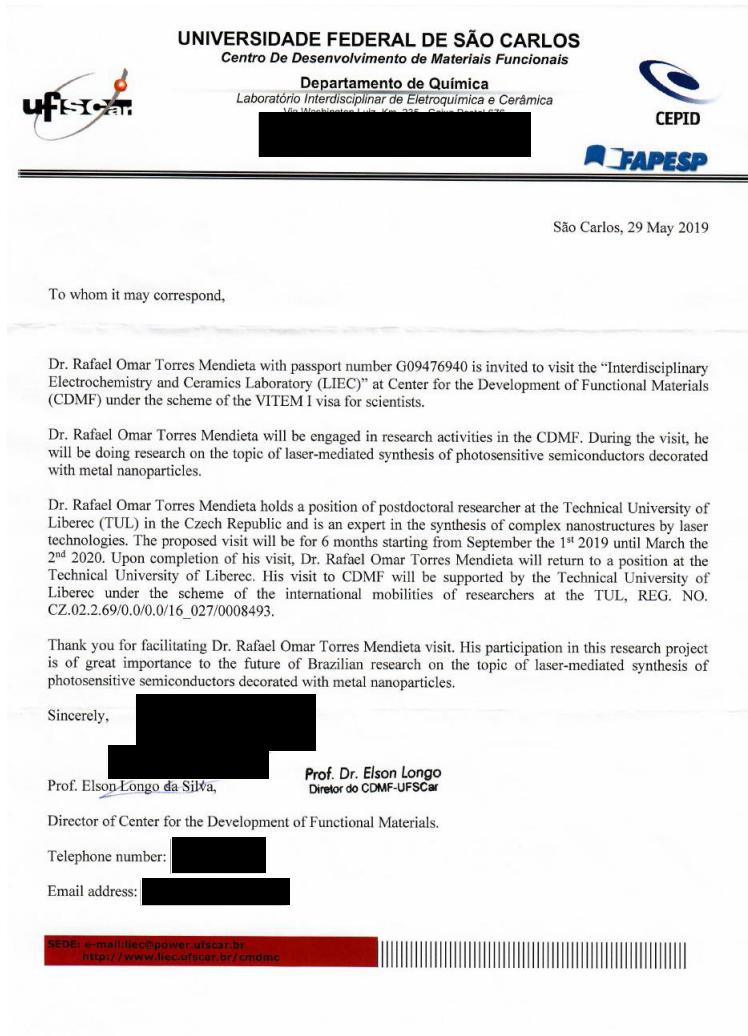
A.10. Jmenovaný Člen Řešit. Týmu Zahr. Výzk. Grantu

The screenshot shows a modal window titled "Email N...". The subject is "COST Action CA19123: Approval of your Working Group Application". The sending date is "01/12/2021 at 13:28:53". The recipient is "Rafael.Torres@tul.cz". The message body contains a thank you note from the COST Association, stating that the Management Committee has approved the Working Group application. It also includes a "Best regards," and the COST Association logo. At the bottom, it says "WG-003 — Mail generated by e-COST on 01 December 2021 at 13:28:53".

The screenshot shows the "Working Group applications" section for COST Action CA19123. The left sidebar has a "WG Applications" tab selected. The main area displays a table with one row. The row shows an applicant named "Rafael Omar Torres Mendieta" from "Technical University of Liberec - Czech Republic (CZ)". The status is "Approved". The working group is "2. Bio-Electrochemical Systems to reduce the environmental impact of pollutants and bioresource valorisation". There are buttons for "Export all applications", "Reset", "Filter", "Details", and "+ Add WG application".

<https://www.cost.eu/actions/CA19123/#tabs+Name:Working%20Groups%20and%20Membership>

A.11. Výzkumná Stáž V Zahraničí Min. 3 Měs.

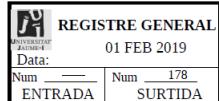


Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

A.12. oponent. posudek (hab.,PhD)

Castelló de la Plana, 01 february 2019

- Your ref:
- Our ref: Doctoral School
- Subject: Appointment of member for prior evaluation
- Destination:



Dr. RAFAEL OMAR TORRES MENDIETA
Technical University of Liberec
Dep. Génie Civil et Construction Durable

Resolution

The Committee for Research and Doctoral Studies, in accordance with Article 13.2 of Royal Decree 99/2011, and the proposal of the body responsible for the doctoral programme, resolves to appoint **RAFAEL OMAR TORRES MENDIETA**, as one of the experts to carry out an evaluation of the following doctoral thesis:

Thesis details

University: Jaume I
Body in charge: Escola de Doctorat
Author: Alexandra Gimeno Furió
Title: Uso de nanofluidos para la mejora de la absorción de la radiación solar
Director: Dra. Leonor Hernández López

You can submit your report by any of the following means:



Articles 23 and 24 of Law 40/2015 on the legal framework of the public sector, shall apply.

Director of the Doctoral School

Dra. Mercè Correa Sanz

A.13. jiná aktivita

ORIGINAL / COPY *

**RECEIPT NO 29739/795967 OF 2019-04-18
to the general terms and conditions of the contract
for evaluating proposals in open calls of the National Science Centre**

Expert: Rafael O. Torres-Mendieta

Taxpayer identification number - tax identification number or social security number obtained in country of taxpayer residence: 8808191414

Address: Ještědská 341/103 18 , 46-0 08 Liberec

Contracting Party:

National Science Centre (Narodowe Centrum Nauki), ul. Twardowskiego 16, 30-312 Kraków,
NIP 6762429638; REGON 121361537

For the performance of the task involving preparation of the evaluation No. 795967 to the proposal No. 2018/31/B/ST8/03043

Gross amount due: 400 PLN

In words: four hundred PLN (gross)

The payment should be transferred by a bank transfer to the bank account given in the Personal Information for Personal Income Tax Purposes.

Rafael O. Torres-Mendieta, login rNCN325856

*delete as applicable

The Scientistt
Exploring Science • Promoting Innovation

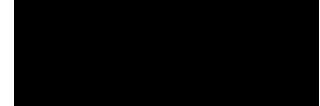
Certificate of Recognition

This Certificate is Presented to

Prof/Dr/Mr/Ms. Rafael Omar Torres Mendieta

*Institute for Nanomaterials, Advanced Technologies and
Innovation, Czech Republic*

in recognition of his/her Contribution as Moderator at 2nd Global
Summit and Expo on Materials Science and Nanoscience
(GSEMSN2022) held during October 17-19, 2022 at Dubai, UAE



Conference Chair (GSEMSN2022)
Prof. Neil Cameron
Monash University, Australia

Anderson S. L. Gomes
Universidade Federal of
Pernambuco, Brazil

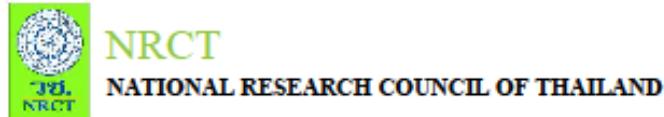
F Pacheco Torgul
University of Minho, Portugal

Danlin Chen
Ryerson University, Canada

Evangelos Kordatos
Sheffield Hallam
University, UK

Podklady pro habilitační řízení na FM TUL
M.Sc. Rafael Omar Torres Mendieta, Ph.D.

DOCUMENT ID:181720521677208768



Asst.Prof.Dr. Rafael Omar Torres Mendieta
Institute for Nanomaterials, Advanced Technologies and Innovation
Technical University of Liberec
Studentská 1402/2, 461 17 Liberec
Czech Republic

No. 0401/

February B.E. 2566 (2023)

Dear Asst.Prof.Dr. Torres Mendieta,

On behalf of the National Research Council of Thailand (NRCT), we would like to convey our sincere thanks to you for your active participation as a commentator for presentation at the Mini Stage of Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition (IPITEx) held in “Thailand Inventors’ Day 2023” from 2 – 6 February 2023 at Event Hall 102 – 104, Bangkok International Trade & Exhibition Centre (BITEC) at Bangkok. We appreciate your involvement and thank you for sparing your valuable time for the event. We are sure that the inventors will gain useful suggestion and also new innovative ideas from you.

Once again, thank you for the involvement that makes our event meaningful. We look forward to seeing you again at the IPITEx next year.

Yours sincerely,



(Miss Wiparat De-ong)

Executive Director

National Research Council of Thailand



๒๕
NRCT

National Research Council of Thailand

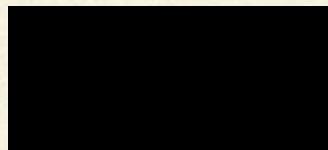
CERTIFICATE OF APPRECIATION

This certificate is presented to

Assistant Professor Rafael Omar Torres Mendieta, Ph.D.

In recognition for your mentoring role as a commentator

in Bangkok International Intellectual Property, Invention,
Innovation and Technology Exposition (IPITEX 2023),
during Thailand Inventors' Day 2023 held on 2 – 6 February 2023
at Bangkok, Thailand



(Dr.Wiparat De-ong)
Executive Director
National Research Council of Thailand