

CURRICULUM VITAE

Yiannis Deligiannakis, Ph.D.

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Standard academic and research record

ACCADEMIC BACKGROUND-EDUCATION

1981-1985 B.Sc. University of Ioannina, Ioannina, Greece (Physics)
1989-1990 Ms.Sc.: Institute of Materials Science, NCSR Demokritos Athens, Greece (*Molecular Physical Chemistry*).
1990-1994 Ph.D. Institute of Materials Science, NCSR Demokritos Athens, Greece
1994-1997 Post Doctoral Researcher (Individual Marie-Curie Fellowship) :Centre des Etudes Nucleaires SBE-CEA-Saclay France.
1997-1998 Post Doctoral Researcher (Marie-Curie Fellowship EU Return Grant) : Institute of Materials Science, NCSR Demokritos Athens, Greece
1999-2000 Senior Researcher :Universite Orsay-Saclay France.

ACADEMIS TRACK

2014- Professor Dept. Physics Univ. Ioannina, , Greece.
2012-2013 Visiting Professor Department of Mechanical and Process Engineering
ETH Zurich, Switzerland
2010-2014 Professor Dept. ENRM, Univ. Patras, Greece.
2006-2010 Associate Professor Dept. ENRM, University of Ioannina.
2000-2006 Assistant Professor Dept. of Environmental & Natural Resources Management [ENRM],
University of Ioannina, Greece.

ADMINISTRATIVE POSITIONS' TRACK

2020- *Director* MSc Program "Physics" Dept. Physics Univ. Ioannina
2017-2020 *Vice -Chair* Dept. Physics Univ. Ioannina, , Greece
2018-2020 *President* International Humic Substances Society (IHSS)
2016-2018 *Vice President* International Humic Substances Society (IHSS)
2016-2017 *Director* Section Solid State Physics & Surface Physics
Dept. of Physics, University of Ioannina
2015-2016 *Director* Section Solid State Physics & Surface Physics
Dept. of Physics, University of Ioannina
2014- *Head* Lab of Physical Chemistry of Materials & Environment
Dept. of Physics, University of Ioannina

ACADEMIC ACTIVITY

Supervisor of **23** PhD Theses (20 accomplished, 3 in progress)
Supervisor of **25** M.Sc. Theses (22 accomplished, 2 in progress)
Supervisor of **87** Diploma theses (86 accomplished, 1 in progress)

EDITORIAL-BOARD MEMBERSHIP IN SCIENTIFIC JOURNALS

[1] *Nanoenergy Advances* (MDPI) <https://www.mdpi.com/journal/nanoenergyadv/editors>
[2] *Nanomaterials* (MDPI) <https://www.mdpi.com/journal/nanomaterials/editors>
[3] *Energies* (MDPI) <https://www.mdpi.com/journal/energies/editors#editorialboard>

FOREIGN STAYS-VISITS

2012-2013- Visiting Professor Particle Technology Laboratory ETH Zurich Dept of Mechanical and Process Engineering
2010- Institute of Physical and Theoretical Chemistry Center of Magnetic Resonance Goethe-University Frankfurt.
2009- Frumkin Inst. of Physical Chemistry, Russian Academy of Sci. Moscow Russia.
2007- Dept. of Chemistry Lomonosov University, Moscow Russia.
2003 -Section De Bioenergetique, Centre des Etudes Nucleaires, Saclay, France.
2002- Dept. of Chemistry University of Wroclaw, Poland .
2001- Dept. of Physical Chemistry, Weissman Institute, Rehovot, Israel.

LAB OF PHYSICAL CHEMISTRY OF MATERIALS & ENVIRONMENT: RESEARCH INTERESTS AND ACTIVITY

www.nanomaterials.physics.uoi.gr

- **Industrial Level Development of Applied NanoMaterials for Energy & Environmental Technologies**

Our research aims to **bridge the gap** between lab-scale/academic research (TRL<4) and industrial-scale R&D (TRL>6) of nano-materials. Our strategy is to develop **High-Performance** functional nanostructure using Flame-Spray-Pyrolysis (FSP) technology via precise control of the physics of nanolatices, photophysical properties and interfacial physical-chemistry.

- **Artificial Photosynthesis:** CO₂ conversion to green-fuels using solar power (photo-electrocatalysis). H₂ production from photocatalytic H₂O splitting using highly-efficient nanocatalysts. <http://nanomaterials.physics.uoi.gr/index.php/nartphoto/> :

Fuell Cell Nanomaterials: Oxygen Reducction Reaction (ORR) electrodes, Hydrogen Oxidation electrodes.

- **Plasmonic Photoactive Nanomaterials:** plasmonic-heating, plasmonic hot-electron phenomena, plasmonic catalysis
- **Nanosensors:** *in-situ* development of nanofilms for anansensong of gases (H₂, CO₂, O₂, small organics)
- **Environmental Remediation Nanotechnology:** Heavy metal (Pd, Cd, Zn, Cu, Fe) depolution of waters with emphasis on High-Efficiency Arseninc Remedation, Cr⁶⁺-depolution, Lake-waters Amonia/Phosphate Anoxia abatment. Development of acive nananofilters for Microplastics, Nanotyreware remediation. Nanohybrids

Physics of Nanomaterials -Flame Spray Pyrolysis (FSP) technology.

<http://nanomaterials.physics.uoi.gr/index.php/2019/04/22/instalation-and-operation-of-scale-up-fsp-reactor/>

Single- and Double Nozzle FSP engineering of Semiconducting_ metal oxides, metal-oxide perovsikes or metallic nanomaterials and their heterostructures.

Reducing-Flame FSP engineering of suboxides oxides [magnelli phases Ti_mO_{2x-x}, Cu₂O, Cu⁰, Cu₂S, FeO, Fe₃O₄, Fe⁰, Ni⁰] and their heterostructures.

Industrial-Scale FSP: Scale up production of nanomaterials, Kg-per-hour-capacity.

Z-scheme phtoresponsive nanodevices. Superparamagnetic nanomaterials. Plasmonic phenomena, Hydrogen Atom Tranfer physics.

Safe-by-Design Production on Nanomaterials using FSP-technology: nantotxicity control at the production-level (Mictotox, Reactive Oxygen Species, Metal-Leaching, Nano-size effects)

- **Development and applications of Advanced Electron Paramagnetic Resonance Spectroscopy.**

Spin Physics, Spin dynamics, spin lattice phenomena, Pulsed EPR spectroscopy, ESEEM, HYSCORE, study of interfacial phenomena, radical reactions, transient intermediates in (photo)catalytic cycles. High temperature EPR spectroscopy, Parallel Mode EPR on Integer Spins.

PATENT HOLDING (35PATENTS)

[HTTPS://PATENTSCOPE.WIPO.INT/SEARCH/EN/RESULT.JSF?_VID=P10-LUIG8I-27306](https://patentscope.wipo.int/search/en/result.jsf?_vid=P10-LUIG8I-27306)

1. [1008850](#)MATERIAL BEING DERIVED FROM RECYCLED TYRE'S PYROLYTIC CARBON AND OPTIMIZED FOR ARSENIC REMOVAL

GR - 13.09.2016 Int.Class [C09C 1/48](#) Appl.No 20150100235 Applicant DELIGIANNAKIS IOANNIS GEORGIOU Inventor DELIGIANNAKIS IOANNIS GEORGIOU

2. [1008854](#)PHOTOCATALYTICALLY-REGENERATED ABSORBENT COMPOSITE MATERIAL DERIVED FROM WASTED-TYRE PYROLYTIC CARBON AND TiO₂-N,F DEPOSITION FOR PHENOL SORPTION-DEGRADATION (PHO.RE.CA)

GR - 20.09.2016 Int.Class [C02F 1/28](#) Appl.No 20150100249 Applicant DELIGIANNAKIS IOANNIS GEORGIOU Inventor DELIGIANNAKIS IOANNIS GEORGIOU

3. [1007843](#)ABSORBENT FOR REMOVING PHOSPHOROUS AND AMMONIA

GR - 27.02.2013 Int.Class [B01J 20/10](#) Appl.No 20110100702 Applicant DELIGIANNAKIS IOANNIS GEORGIOU Inventor DELIGIANNAKIS IOANNIS GEORGIOU

4. [1008352](#)ANTIBACTERIAL HYBRID MATERIAL

GR - 18.11.2014 Int.Class [C09C 1/30](#) Appl.No 20130100459 Applicant EPITROPI EREVNON PANEPISTIMIOU IOANNINON E L K E Inventor LOULUDI MARIA DIMITRIOU

5. [2722369](#)Hybrid nanoantioxidant materials

EP - 23.04.2014 Int.Class [C09C 1/30](#) Appl.No 12007181 Applicant ETH ZUERICH Inventor PRATSINIS SOTIRIS E

6. [3986842](#)NANOCLINKER POWDER WITH BELITE AND, OPTIONALLY, ALITE CRYSTALLINE PHASES

EP - 27.04.2022 Int.Class [C04B 7/345](#) Appl.No 20737527 Applicant TITAN CEMENT COMPANY S A Inventor KATSOTIS MARIOS

7. [WO/2014/060080](#)HYBRID NANOANTIOXIDANT MATERIALS

WO - 24.04.2014 Int.Class [C09C 1/30](#) Appl.No PCT/EP2013/003055 Applicant ETH ZURICH Inventor PRATSINIS, Sotiris, E.

8. [1010073](#)NANOCLINKER POWDER WITH BELITE AND, OPTIONALLY, ALITE CRYSTALLINE PHASES

GR - 19.01.2021 Int.Class [C04B 7/345](#) Appl.No 20190100262 Applicant ANONYMI ETAIRIA TSIMENTON TITAN Inventor DELIGIANNAKIS IOANNIS GEORGIOU

9. [WO/2020/254840](#)NANOCLINKER POWDER WITH BELITE AND, OPTIONALLY, ALITE CRYSTALLINE PHASES

WO - 24.12.2020 Int.Class [C04B 7/345](#) Appl.No PCT/GR2020/000031 Applicant TITAN CEMENT COMPANY S.A. Inventor KATSOTIS, Marios

10. [2842627](#)Visible light photoactive nanoparticles and methods for the preparation thereof

EP - 04.03.2015 Int.Class [B01J 35/02](#) Appl.No 13004278 Applicant ETH ZUERICH Inventor PRATSINIS SOTIRIS E

11. [WO/2023/118208](#)COATED PARTICLES OF OXIDES OF METALS AND OF PHOSPHORUS, AND THEIR PREPARATION BY FLAME SPRAY PYROLYSIS

WO - 29.06.2023 Int.Class [C09C 3/06](#) Appl.No PCT/EP2022/087087 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

12. [3130566](#)PARTICULES D'OXYDES DE METAUX ET DE PHOSPHORE ENROBEES, ET LEUR PREPARATION PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 23.06.2023 Int.Class [A61K 8/19](#) Appl.No 2114163 Applicant OREAL Inventor JEANNE-ROSE VALERIE

13. [WO/2023/118233](#) COATED COLOURING PARTICLES OF METAL OXIDES AND SUBOXIDES, AND THEIR PREPARATION BY FLAME SPRAY PYROLYSIS

WO - 29.06.2023 Int.Class [C09C 3/06](#) Appl.No PCT/EP2022/087125 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

14. [WO/2023/118188](#) COATED CERIUM SUBOXIDE PARTICLES AND PREPARATION THEREOF BY FLAME SPRAY PYROLYSIS

WO - 29.06.2023 Int.Class [C01F 17/235](#) Appl.No PCT/EP2022/087057 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

15. [3130789](#) PARTICULES DE SOUS-OXYDES DE CERIUM ENROBEES ET LEUR PREPARATION PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 23.06.2023 Int.Class [C01F 17/235](#) Appl.No 2114169 Applicant OREAL Inventor JEANNE-ROSE VALERIE

16. [3105788](#) PROCEDE DE PREPARATION DE PARTICULES ENROBEES D'OXYDE DE SILICIUM PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 02.07.2021 Int.Class [C01B 33/18](#) Appl.No 1915679 Applicant OREAL Inventor JEANNE-ROSE VALERIE

17. [20230035202](#) PROCESS FOR PREPARING PARTICLES COATED WITH SILICON OXIDE BY FLAME SPRAY PYROLYSIS

US - 02.02.2023 Int.Class [C01B 13/34](#) Appl.No 17789496 Applicant L'OREAL Inventor Valérie JEANNE-ROSE

18. [4081482](#) PROCESS FOR PREPARING PARTICLES COATED WITH SILICON OXIDE BY FLAME SPRAY PYROLYSIS

EP - 02.11.2022 Int.Class [C01F 5/06](#) Appl.No 20839336 Applicant OREAL Inventor JEANNE-ROSE VALÉRIE

19. [112022012664](#) PROCESSO PARA PREPARAR PARTÍCULAS REVESTIDAS COM ÓXIDO DE SILÍCIO POR PIRÓLISE DE ASPERSÃO DE CHAMA

BR - 06.09.2022 Int.Class [C01F 5/06](#) Appl.No EP2020087874 Applicant L'OREAL Inventor VALÉRIE JEANNE-ROSE

20. [3130563](#) PARTICULES COLORANTES D'OXYDES ET DE SOUS-OXYDES DE METAUX ENROBEES, ET LEUR PREPARATION PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 23.06.2023 Int.Class [A61K 8/19](#) Appl.No 2114166 Applicant OREAL Inventor JEANNE-ROSE VALERIE

21. [3105787](#) PROCEDE DE PREPARATION DE PARTICULES D'OXYDE DE ZINC ENROBEES PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 02.07.2021 Int.Class [C01B 13/34](#) Appl.No 1915678 Applicant OREAL Inventor JEANNE-ROSE VALERIE

22. [20220356071](#) PROCESS FOR PREPARING COATED ZINC OXIDE PARTICLES BY FLAME SPRAY PYROLYSIS

US - 10.11.2022 Int.Class [C01G 9/02](#) Appl.No 17789488 Applicant L'OREAL Inventor Valérie JEANNE-ROSE

23. [4081483](#) PROCESS FOR PREPARING COATED ZINC OXIDE PARTICLES BY FLAME SPRAY PYROLYSIS

EP - 02.11.2022 Int.Class [C01G 9/02](#) Appl.No 20839335 Applicant OREAL Inventor JEANNE-ROSE VALÉRIE

24. [112022012659](#) PROCESSO PARA PREPARAR PARTÍCULAS DE ÓXIDO DE ZINCO REVESTIDAS POR PIRÓLISE DE ASPERSÃO DE CHAMA

BR - 06.09.2022 Int.Class [C01G 9/02](#) Appl.No EP2020087873 Applicant L'OREAL Inventor VALÉRIE JEANNE-ROSE

25. [20230037614](#) METAL OXIDE PARTICLES COATED WITH A RARE-EARTH OXIDE AND PROCESS FOR PREPARING SAME BY FLAME SPRAY PYROLYSIS

US - 09.02.2023 Int.Class [A61K 8/02](#) Appl.No 17789501 Applicant L'OREAL Inventor Valérie JEANNE-ROSE

26. [112022012665](#) PARTÍCULAS DE ÓXIDO DE METAL REVESTIDAS COM UM ÓXIDO DE TERRAS RARAS E PROCESSO DE PREPARAÇÃO DAS MESMAS POR PIRÓLISE POR ASPERSÃO DE CHAMA

BR - 06.09.2022 Int.Class [C01G 9/02](#) Appl.No EP2020087876 Applicant L'OREAL Inventor VALÉRIE JEANNE-ROSE

27. [4081484](#) METAL OXIDE PARTICLES COATED WITH A RARE-EARTH OXIDE AND PROCESS FOR PREPARING SAME BY FLAME SPRAY PYROLYSIS

EP - 02.11.2022 Int.Class [C01G 9/02](#) Appl.No 20842230 Applicant OREAL Inventor JEANNE-ROSE VALÉRIE

28. [WO/2015/028529](#) VISIBLE LIGHT PHOTOACTIVE NANOPARTICLES AND METHODS FOR THE PREPARATION THEREOF

WO - 05.03.2015 Int.Class [B01J 35/02](#) Appl.No PCT/EP2014/068212 Applicant ETH ZURICH Inventor PRATSINIS, Sotiris

29. [3105789](#) PARTICULES D'OXYDE DE METAL ENROBEES D'OXYDE DE TERRE RARE ET SON PROCEDE DE PREPARATION PAR PYROLYSE PAR PROJECTION DE FLAMME

FR - 02.07.2021 Int.Class [C01F 17/32](#) Appl.No 1915681 Applicant OREAL Inventor JEANNE-ROSE VALERIE

30. [3116434](#) Utilisation d'un oxyde métallique particulier pour la photoconversion de composés organiques sur les matières kératiniques

FR - 27.05.2022 Int.Class [A61K 8/19](#) Appl.No 2012072 Applicant OREAL Inventor JEANNE-ROSE VALÉRIE

31. [20230414464](#) USE OF A PARTICULAR METAL OXIDE FOR THE PHOTOCONVERSION OF ORGANIC COMPOUNDS ON KERATIN MATERIALS

US - 28.12.2023 Int.Class [A61K 8/22](#) Appl.No 18254041 Applicant L'Oreal Inventor Valérie Jeanne-Rose

32. [4251120](#) USE OF A PARTICULAR METAL OXIDE FOR THE PHOTOCONVERSION OF ORGANIC COMPOUNDS ON KERATIN MATERIALS

EP - 04.10.2023 Int.Class [A61K 8/22](#) Appl.No 21810024 Applicant OREAL Inventor JEANNE-ROSE VALÉRIE

33. [WO/2021/130370](#) PROCESS FOR PREPARING PARTICLES COATED WITH SILICON OXIDE BY FLAME SPRAY PYROLYSIS

WO - 01.07.2021 Int.Class [C01F 5/06](#) Appl.No PCT/EP2020/087874 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

34. [WO/2021/130369](#) PROCESS FOR PREPARING COATED ZINC OXIDE PARTICLES BY FLAME SPRAY PYROLYSIS

WO - 01.07.2021 Int.Class [C01G 9/02](#) Appl.No PCT/EP2020/087873 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

35. [WO/2021/130371](#) METAL OXIDE PARTICLES COATED WITH A RARE-EARTH OXIDE AND PROCESS FOR PREPARING SAME BY FLAME SPRAY PYROLYSIS

WO - 01.07.2021 Int.Class [C01G 9/02](#) Appl.No PCT/EP2020/087876 Applicant L'OREAL Inventor JEANNE-ROSE, Valérie

MEMBERSHIP IN INTERNATIONAL SCIENTIFIC ASSOCIATIONS

1) [2004-today] Member of the American Chemical Society

2) [1994-today] Member of the International EPR [ESR] Society

3) [2001-today] National Coordinator of the Greek branch of the International Humic Substance Society (IHSS) (<http://www.ihss.gatech.edu>)

Funded Projects

- **[2024-2026]** “Multi-Functional Solid Oxide Electrolysis Cells for Renewable Hydrogen Production and reCycling of Carbon Dioxide **ECoS**” Grant funded by Hellenic Foundation for Research & Innovation (ΕΛΙΔΕΚ)
- **[2023-2027]** “Elimination of Microplastics Nanoplastics and Nanotyreware from Surface Waters (INSPIRE) (EU-HORIZON)
- **[2020-2023]** “Engineering of High-Conduction Band (HCB) Nanophotocatalysts by Flame Spray Pyrolysis for Artificial-Photosynthesis **nARTPHOTO**” Grant funded by Hellenic Foundation for Research & Innovation (ΕΛΙΔΕΚ) (**Coordinator**)
- **[2020-2021]** “Engineering of Highly Reducing Nanophotocatalysts by Flame Spray Pyrolysis for H₂O splitting and CO₂ reduction ” Grant funded by Hellenic General Secretary of Research and Technology (**Coordinator**)
- **[2016-2017]** “Production of C₃S Concrete phase by Flame Spray Pyrolysis ” Grant funded by TITAN S.A. (**Coordinator**)
- **[2016-2017]** “Reducing FSP production of Colored Nanomaterials” Grant funded by L OREAL (**Coordinator**)
- **[2017-2018]** “Production of Photoadsorbing Nanomaterials by Flame Spray Pyrolysis” Grant funded by L OREAL (**Coordinator**)
- **[2016-2017]** “Production of C₃S Concrete phase by Flame Spray Pyrolysis ” Grant funded by TITAN S.A. (**Coordinator**)
- **[2016-2017]** “Reducing FSP production of Colored Nanomaterials” Grant funded by L OREAL (**Coordinator**)
- **[2016-2017]** “Ceramic-Pyrolytic Carbon Composites ” Grant funded by IKERAL S.A. (**Coordinator**)
- **[2015-2016]** “Controlled Optical Properties of Nanomaterials” Grant funded by L OREAL (**Coordinator**)
- **[2012-2015]** THALIS “Development of Hybrid Meso and Nanoporous Materials for Environmental and Catalytic Applications” (**Coordinator**)
- **[2012-2015]** SYNERGASIA “Development of Pyrolytic Carbon Materials for Environmental and Catalytic Applications”
- **[2011-2012]** “Development of low-Tg Glasses exploiting Red Mud wastes for HeavyMetal Remediation” Grant funded by ALUMINION S.A. (**Coordinator**)

LIST of (ISI) PUBLICATIONS (>220 publications/ h index >46/ citations >6000)

Indicative Recent Publications

Non-graphitized carbon/Cu ₂ O/Cu ⁰ nanohybrids with improved stability and enhanced photocatalytic H ₂ production	Zindrou, A., Belles, L., Solakidou, M., Boukos, N., Deligiannakis, Y.*	2023	Scientific Reports (Nature) , 13(1), 13999 DOI 10.1038/s41598-023-41211-4
Industrial-Scale Engineering of Nano {RuO ₂ /TiO ₂ } for Photocatalytic Water Splitting: The Distinct Role of {(Rutile)TiO ₂ -(Rutile)RuO ₂ } Interfacing	Solakidou, M., Zindrou, A., Smykala, S., Deligiannakis, Y.*	2023	ACS Industrial and Engineering Chemistry Research DOI 10.1021/acs.iecr.3c04548
Highly Crystalline Nanosized NaTaO ₃ /NiO Heterojunctions Engineered by Double-Nozzle Flame Spray Pyrolysis for Solar-to-H ₂ Conversion: Toward Industrial-Scale Synthesis	Psathas, P., Moularas, C., Smykala, S., Deligiannakis, Y.*	2023	ACS Appl. Nano Materials 6, 4, 2658–2671 DOI 10.1021/acsanm.2c05066
Advanced Flame Spray Pyrolysis (FSP) Technologies for Engineering Multifunctional Nanostructures and Nanodevices REVIEW	Dimitriou, C., Psathas, P., Solakidou, M., Deligiannakis, Y.*	2023	Nanomaterials , 13(23), 3006 DOI 10.3390/nano13233006
Electron Paramagnetic Resonance Quantifies Hot-Electron Transfer from Plasmonic Ag@SiO ₂ to Cr ⁶⁺ /Cr ⁵⁺ /Cr ³⁺	Moularas, C., Dimitriou, C., Georgiou, Y., Boukos, N., Deligiannakis, Y.*	2023	Journal of Physical Chemistry C 127(4), pp. 2045–2057 DOI 10.1021/acs.jpcc.2c07837
Controlled Photoplasmonic Enhancement of H ₂ Production via Formic Acid Dehydrogenation by a Molecular Fe Catalyst	Gemenetzi, A., Deligiannakis, Y., Louloudi, M.	2023	ACS Catalysis , 13(14), pp. 9905–9917 DOI 10.1021/acscatal.3c01925
Control of monomeric Vo's versus Vo clusters in ZrO _{2-x} for solar-light H ₂ production from H ₂ O at high-yield (millimoles gr ⁻¹ h ⁻¹)	Deligiannakis, Y.* Mantzanis, A., Zindrou, A., Smykala, S., Solakidou, M.	2022	Scientific Reports (Nature) 12(1),15132 DOI_10.1038/s41598-022-19382-3
Reversible Plasmonic Switch in a Molecular Oxidation Catalysis Process	Gemenetzi, A., Moularas, C., Belles, L., Deligiannakis, Y.* Louloudi, M.*	2022	ACS Catalysis 12(16), pp. 9908–9921 DOI_10.1021/acscatal.2c02287
Safe-by-Design Flame Spray Pyrolysis of SiO ₂ Nanostructures for Minimizing Acute Toxicity	Fragou, F., Stathi, P., Deligiannakis, Y.* Louloudi, M.*	2022	ACS Applied Nano Materials 5(6), pp. 8184–8195 DOI_10.1021/acsanm.2c01273
Double-nozzle flame spray pyrolysis as a potent technology to engineer noble metal-TiO ₂ nanophotocatalysts for efficient H ₂ production REVIEW	Solakidou, M., Georgiou, Y., Deligiannakis, Y.*	2021	Energies 14(4),817 DOI 10.3390/en14040817
A Hybrid Silk@Zirconium MOF Material as Highly Efficient As ^{III} -sponge	Georgiou, Y., Rapti, S., Mavrogiorgou, A., Louloudi, M., Deligiannakis, Y.*	2020	Scientific Reports (Nature) 10(1),9358 DOI_10.1038/s41598-020-66091-w
Thermoplasmonic heat generation efficiency by nonmonodisperse core-Shell Ag ⁰ @SiO ₂ Nanoparticle Ensemble	Moularas, C., Georgiou, Y., Adamska, K., Deligiannakis, Y.*	2019	Journal Physical Chemistry C 123(36), pp. 22499–22510 DOI 10.1021/acs.jpcc.9b06532

FULL-LIST of Publication is accessible at

[https://www.scopus.com/results/results.uri?sid=880d8fa332f931b42e04c238809edbd2&src=s&sot=b&sdt=b&origin=search&basic&tr=&sl=28&s=AUTHOR-NAME\(deligiannakis%2Cy\)&searchterm1=deligiannakis%2Cy&searchTerms=&connectors=&field1=AUTHOR_NAME&fields=](https://www.scopus.com/results/results.uri?sid=880d8fa332f931b42e04c238809edbd2&src=s&sot=b&sdt=b&origin=search&basic&tr=&sl=28&s=AUTHOR-NAME(deligiannakis%2Cy)&searchterm1=deligiannakis%2Cy&searchTerms=&connectors=&field1=AUTHOR_NAME&fields=)