CURICULUM VITAE

Constantinos E. Salmas

Chemical Engineer (NTUA)

PhD on Chemical Engineering (NTUA)

Associate Professor

Department of Materials Sci. Engineering

School of Engineering

University of Ioannina

Ioannina

GREECE

(January 2024)

CONTENTS

A. Personal Data

Birth Place: Amfilochia, Aetoloacarnania, Greece
Birth Date : September 10th , 1969
Marital Status: Married, two (2) children
Residency Address: Aivatidi 8, Ioannina, 45332
Vel. Salma 22, Amfilochia, 30500
Military Duties: Completed as a Chemical Engineer of War Materials Body of Greek Army (18 months).
Tel: +302651007253, +306977607956
e-mail : ksalmas@uoi.gr
Web page (GR): http://www.materials.uoi.gr/salmas.php
Web page (EN): http://users.uoi.gr/ksalmas/

Web of Science Researcher ID L-8902-2019
ORCID https://orcid.org/0000-0002-9475-9354
Google Scholar : https://scholar.google.com/citations?hl=el&user=u2CmuqUAAAAJ
Research Gate : https://www.researchgate.net/profile/Constantinos-Salmas?ev=hdr_xprf&_sg=7dBUU1-vwjxFgUNTz3kzxmVCqYmL6NfShBqjRX6PKmCgESgavxrMevz-XuG-Ob2ZLRNZggeAwXqDb8f2DdkOz-xQ
Scopus : Salmas, Constantinos E. - Author details - Scopus Preview

GUEST EDITOR:

NANOMATERIALS (ISSN 2079-4991; IF 5.719)
Nanomaterials | Special Issue : Nanomaterials and Nanostructures for Food Processing and Preservation (mdpi.com)
GELS (ISSN 2310-2861 ; IF 4.702)
Gels | Special Issue : Bioactive Gel Films and Coatings Applied in Active Food Packaging (mdpi.com)
APPLIED SCIENCES (ISSN 2076-3417; IF 2.474)
https://www.mdpi.com/journal/applsci/special_issues/Nanoporous_Materials_II
https://www.mdpi.com/journal/applsci/special_issues/Characterization_and_Application_of_Nanoporous_Materials
ENERGIES (ISSN 1996-1073; IF 2.707)
https://www.mdpi.com/journal/energies/special_issues/alternative_energy_sources_biomass_gasification

B. Briefly CV

Statistical Data

- **65** publications to international peer-reviewed journals **(Google Scholar, h=20, citations=1618)**
- **3** publications to international peer-reviewed journals (**submitted)**
- **9** Academic Textbooks and Books
- **24** International Conferences
- **37** Greek Conferences
- **2** PhD Dissertations Supervisor
- **5** PhD Dissertations three-member committees
- **4** PhD Dissertations seven-member examine committees
- **4** MSc Thesis Supervisor
- **8** MSc Thesis three-member committee
- **16** Integrated Master Diploma Project Supervisor
- **25** Integrated Master three-member examine committees
- **8** Integrated Master Diploma Projects Support (**1994 έως 2013)**
- **4** PhD Dissertation Projects Support **(1994 έως 2013)**
- **32** Participations as Researcher to Scientific Projects
- **4** Scientific Research Projects as Principal Investigator

Running Research Interests:

✓ Biomass Processes, Biomass Valorization, Energy and Materials from Biomass
✓ Process Engineering, Materials' Modelling and Characterization, Pore structure, Porosimetry
✓ Tracing of Foods' Regional Origin via the stable Isotopes Ratio Mass Spectrometry method (IRMS).

C. Detailed CV Presentation

C1. Academic Studies and Further Education

C1.1. Postgraduate, Undergraduate, Secondary School

A. **PhD in Chemical Engineering, School of Chemical Engineering, National Technical University of Athens (NTUA)**, Chemical Processes Engineering Laboratory, PhD Dissertation Project: *«Characterization of Porous Materials: Development of New Calculation Methods for Pore Structure Simulation»,* 2004.
B. **Integrated Master in Chemical Engineering,** NTUA, 1994. Integrated Master Thesis Project: «*Deasphalting Reaction Kinetics for Crude Oil Heavy Fractions*».
C. **High School of Amfilochia, Greece,** graduation 1987, Excellent.

C1.2. Further Education

A. **«*Specialization in Industrial Design*»,** Organizing Institute: Panhellenic Society of Chemical Engineers, May 1999-July 1999.
.
B. **«Specialization in Industrial Anti-Pollution Systems»** Organizing Institute: Panhellenic Society of Chemical Engineers, December 1999-March 1999.

C2. Professional Career

A. Free Lancer Chemical Engineer (Technical Chamber Number 82964). External coworker of companies and industries in private sector such as KNAUF S.A., AEROSKOPIO A.E., Mechanical Equipment Constructions MANOLAS Ltd., Synelixi Ltd., AGROENERGY Ltd.
B. Free Lancer Chemical Engineer (Technical Chamber Number 82964). External coworker of NSCR Demokritos and National Technical University of Athens (NTUA).

C3. Academic Career

2023-today Associate Professor (Materials Process Engineering), Department of Material Science Engineering, School of Engineering, University of Ioannina, Greece (Permanent Position).
2018-2022 Assistant Professor (Materials Process Engineering), Department of Material Science Engineering, School of Engineering, University of Ioannina, Greece (Permanent Position).
2013-2018 Laboratory and Teaching Staff (Rank A') Plant Production Laboratory, Food Laboratory, Department of Administration of Enterprises of Agricultural Products and Foods, University of Patras, Greece (Permanent Position).
2009-2013 Permanent Laboratory Staff as Chemical Engineer, Plant Production Laboratory, Food Laboratory, Department of Administration of Enterprises of Agricultural Products and Foods, University of Patras, Greece.
2008-2010 One Year Lecturer Position, Department of Environmental Management and Natural Resources, University of Ioannina, Greece, Fluid Dynamics, Chemical and Biochemical Processes, Materials' Strength and Mechanics, Mechanical Drawing-AUTOCAD, Energy Plants Valorization.
2001-2009 Permanent Laboratory Staff as Chemical Engineer, School of Chemical Engineering, National Technical University of Athens (NTUA), Greece.

C4. Educational-Teaching Work

C4.1. Self-Reliant Undergraduate Teaching

2017-today Units' Operation, Materials Sci. Engineering, Univ. of Ioannina.
2017- today Chemical Process Engineering, Materials Sci. Engineering, Univ. of Ioannina.
2017- today Process Engineering and Development, Materials Sci. Engineering, Univ. of Ioannina.
2017- today Diffusion and Mass Trans. Phenomena, Materials Sci. Engineering, Univ. of Ioannina.
2017- today Materials Lab. I, Materials Sci. Engineering, Univ. of Ioannina.
2009-2010 Chem. and Biochem. Proc., Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.
2009-2010 Fluid Dynamics, Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.
2009-2010 Mech. Drawing-AUTOCAD, Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.
2009-2010 Materials' Strength, Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.
2008-2009 Energy Plant Valorization, Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.
2008-2009 Mech. Drawing-AUTOCAD, Dept. Envir. Manag. Natural Res., Univ. Ioannina, Greece.

C4.2. Self-Reliant Post-Graduate Teaching

2018-today Synthesis, Processes, and Treatment of Advanced Materials, ADVANCED MATERIALS TECHNOLOGIES, MSc curriculum, University of Ioannina.
2018-today Advanced Chemistry for Materials' Synthesis-Inorganic Sold Processes, MATERIALS CHEMISTRY AND TECHNOLOGY, MSc curriculum, University of Ioannina.
2018-today Materials' Characterization Techniques-Analytical Techniques I, MATERIALS CHEMISTRY AND TECHNOLOGY, MSc curriculum, University of Ioannina.
2017-2019 Statistics I, Theory-Laboratory SPSS, MSc curriculum, University of Patras.
2016-2018 Statistics II, Theory-Laboratory SPSS, MSc curriculum, University of Patras.

C4.3. Tutoring Teaching

A. Co-Teaching (as Lab. And Teaching Staff)

THEORY-TUITION

2016-2017 Statistics I (5th semest.), Univ. of Patras, Greece.
2016-2017 Statistics II (6th semest.), Univ. of Patras, Greece.
2014-2017 Mathematics of Managerial and Financ. Sciences (1st semest.), Univ. of Patras, Greece.
2016-2017 Environmental Management (2nd semest.), Univ. of Patras, Greece.

LABORATORY COURSES

2014-2018 SPSS (5th & 6th semest.), Univ. of Patras, Greece.
2014-2018 Informatic Systems for Administration (1st semest.), Univ. of Patras, Greece.
2014-2018 Informatic Systems for Administration (4th semest.), Univ. of Patras, Greece.
2015-2018 Investments Funding and Evaluation (9th semest.), Univ. of Patras, Greece.
2014-2016 Agricultural Economy (1st semest.), Univ. of Patras, Greece.
2013-2014 General and Inorganic Chemistry (1st semest.), Univ. of Patras, Greece.

B. Tutoring (as Chemical Engineer, Permanent Laboratory Staff)

THEORY-TUITION

1995-2002 Introd. to Chem. Engineering (Mass and Energy Balanc.), (1st semest.), NTUA, Greece.
2003-2006 Chem. Engineering Syst. Analysis (Mass & Energy Balanc.), (2nd sem.), NTUA, Greece.
2002-2006 Chemical Reactors Design, (7th sem.), NTUA, Greece.
2000-2002 Computer Programming, (1st sem.), NTUA, Greece.

2006-2009 Chemical Process Engineering II, (7th sem.), NTUA, Greece
2007-2009 Industrial Reactors Design, (8th sem.), NTUA, Greece.
2007-2009 Combustion and Gasification Theory, (8th sem.), NTUA, Greece.
2001-2009 Mechanical Drawing-AutoCAD, (1st sem.), NTUA, Greece.

LABORATORY COURSES

2014-2018 Informatic Systems for Administration, (4th sem.), Univ. of Patras, Greece.
2014-2016 Agricultural Economy, (1st sem.), Univ. of Patras, Greece.
2013-2014 General and Inorganic Chemistry, (1st sem.), Univ. of Patras, Greece.
2005-2006 Instrumental Chemical Analysis, (5th sem.), NTUA, Greece.
1995-2005 Chemical Engineering I, (6th sem.), NTUA, Greece.
1995-2006 Chemical Engineering II, (7th sem.), NTUA, Greece.
2006-2008 Chemical Process Engineering I, (6th sem.), NTUA, Greece.
2007-2009 Chemical Process Engineering II, (7th sem.), NTUA, Greece.

C4.4. Diploma Thesis and PhD Dissertation (Supervising)

A. PhD supervising

Theodorakopoulou Paraskevi (Univ. of Ioannina, not completed)
Dimitrakou Ekaterini (Univ. of Ioannina, not completed)

B. MSc supervising

Giannioti Eleni (Univ. of Ioannina, completed)
Papapetrou Vasiliki (Univ. of Ioannina, completed)
2 MSc Thesis are running currently.

C. Integrated Master supervising

Kyriakidou Maria (Univ. of Ioannina, Completed)
Kemalidou Panagiota (Univ. of Ioannina, Completed)
Maimaris Theofanis (Univ. of Ioannina, Completed)
14 Integrated Master Thesis are running currently.

D. Three-Members Consultant Committee for PhD

Spyroy Anastasia (Univ. of Ioannina, Completed)
Zacharioudakis Konstantinos (Univ. of Patras, not completed)
Karabagias Vassilios (Univ. of Patras, not completed)
Karageorgou Ioanna (Univ. of Patras, not completed)

E. Member of external examine committees for PhD, MSc, Integrated Master

Over 30 participations.

C4.5. Diploma, MSc, and PhD support

A. Eight (8) Integrated Master Thesis (School of Chem. Eng. NTUA)

TSAPEKIS ORESTIS
KAPSALIS VASSILIOS
KOUKIS PANAGIOTIS
KARAGEORGOS KONSTANTINOS
STAMATOGLOU EMILIOS
PLOUBIDIS EVEGELOS
SPEREZI CHRISTINA
BROUZGOU AGELIKI

B. Four (4) PhD Dissertations (School of Chem. Eng. NTUA)

TSAPEKIS ORESTIS
VAITSI SOFIA

C4.6. Non-Academic Teaching Work

2008-2009 Trainer for AUTOCAD use **(School of Chem. Eng. NTUA)**
2008-2009 Trainer to "Information Technology" project **(School of Chem. Eng. NTUA)**
2002-2003 Trainer for computer use to education **(School of Chem. Eng. NTUA)**

C5. Research and Writing Work

BOOKS AND TEXT-BOOKS

1. Integrated Master Thesis, *Kinetics of Crude Oil Heavy Fractions using Pulverized Catalyst*, NTUA, Athens, 1994.
2. PhD dissertation, *Porous Materials Characterization: Development of New Calculation Methods for Pore Structure Simulation,* NTUA, Athens, 2004.
3. Academic Textbook, *Industrial Reactors Engineering*, NTUA, Athens, 2007.
4. Academic Textbook, *Gasification,* NTUA, Athens, 2007.
5. Academic Textbook, *Guide for Experiments-Laboratorian Course "Chemical Engineering I & II"*, NTUA, Athens, 2007.
6. Academic Textbook, Mechanical Drawing-*AUTOCAD,* Univ. of Ioannina, Agrinio, *2009.*
7. Users' Manual, *Gas Chromatography Simulator (GC Simulator)*, NTUA, Athens, 2005.
8. e-Book, *Sold Wastes Management*, NTUA, Athens, 2006.
9. Bioactive Gel Films and Coatings Applied in Active Food Packaging, A.E.Giannakas, C.E.Salmas, C. Proestos, MDPI Academic Open Access Publishing, St.Alban-Anlage 66, 4052 Basel, Switzerland, ISBN978-3-0365-9719-5, DOI: 10.3390/books978-3-0365-9718-8.

C5.1. Publications to Peer-Reviewed International Scientific Journals

Journal Title	Number of publications	H-index (Scimago)	Impact Factor
Langmuir	4	359	4.331
Journal of Hazardous Materials	1	329	10.588
J. Colloid Interf. Sci.	1	262	9.965
Carbohydrate Polymers	1	251	10.723
Ind. Eng. Chem. Res.	4	245	4.326
Applied Catalysis A: General	2	231	5.723
Molecules	3	199	4.927
Fuel Processing Technology	1	168	8.129
Materials	1	148	3.748
IEEE Journal-Sensors	1	145	4.325
Polymers	1	113	4.967
Drying Technology	2	102	4.452
Nanomaterials	5	102	5.719
Applied Sciences	4	101	2.838
Neural Comput. & App.	1	94	6.000
Antioxidants	1	83	7.675
Foods	3	73	5.561

Stud. Surf. Science Catal.	2	68	2.070
Sustainable Energy Technologies and Assessments	1	61	7.632
Chem. Eng. Commun.	4	59	2.494
J. Food Proc. & Preservation	1	56	2.609
Processes	1	54	3.352
Nano-Struct. & Nano-Obj.	1	42	5.450
Global Nest Journal	1	36	1.150
Gels	5	36	4.432
J. Carbon Res. C	1	-	-
Micro	3	-	-
Polysaccharides	1	-	-
J. Nanotechnology Res.	2	-	-
J. Nanomanufacturing	1	-	-
J. Electrochem. Soc.	1		
ACS Omega	1		4.1
Carbohydrate Polymer Technol. and Applications	1	15	
J. Applied Polymer Science	1		
Coatings			

Publications to peer-reviewed journals

J65. Christina Gioti, Konstantinos C. Vasilopoulos, Maria Baikousi, Constantinos E. Salmas, Angelos Ntaflos, Alkiviadis Paipetis, Zacharias Viskadourakis, Rabia Ikram, Simeon Agathopoulos, George kenanakis, Michael A. Karakassides
Enhanced Gypsum Boards with Activated Carbon Composites and Phase Change Materials for Advanced Thermal Energy Storage and EMI Shielding Properties
Micro 2024, **(accepted)**

J64. Konstantinos Zaharioudakis, Eleni Kollia, Areti Leontiou, Dimitrios Moschovas, Andreas Karydis-Messinis, Apostolos Avgeropoulos, Nikolaos E. Zafeiropoulos, Efthymia Ragkava, George Kehayias, Charalampos Proestos, Constantinos E. Salmas, Aris E. Giannakas
Carvacrol Microemulsion vs. Nanoemulsion as Novel Pork Minced Meat Active Coatings
Nanomaterials 2023, 13, 3161
https://doi.org/10.3390/nano13243161

J63. Maria Baikousi, Anna Gantzoudi, Christina Gioti, Dimitrios Moschovas, Aris E. Giannakas, Apostolos Avgeropoulos, Constantinos E. Salmas, Michael A. Karakassides
Hydrogen Sulfide Removal via Sorption Process on Activated Carbon–Metal Oxide Composites Derived from Different Biomass Sources
Molecules **2023**, 28, 7418.
https://doi.org/10.3390/molecules28217418

J62. Andreas Karydis-Messinis, Dimitrios Moschovas, Maria Markou, Kyriaki Tsirka, Christina Gioti, Eleni Bagli, Carol Murphy, Aris E. Giannakas, Alkis Paipetis, Michael A. Karakassides, Apostolos Avgeropoulos, Constantinos E. Salmas, Nikolaos E. Zafeiropoulos
Hydrogel Membranes from Chitosan-Fish Gelatin-Glycerol for Biomedical Applications: Chondroitin Sulfate Incorporation. Effect in Membrane Properties
Gels **2023**, 9, 844.
https://doi.org/10.3390/gels9110844

J61. Aris E. Giannakas, Konstantinos Zaharioudakis, Eleni Kollia , Anna Kopsacheili, Learda Avdylaj, Stavros Georgopoulos, Areti Leontiou , Vassilios K. Karabagias, George Kehayias, Efthymia Ragkava, Charalampos Proestos, Constantinos E. Salmas
The Development of a Novel Sodium Alginate-Based Edible Active Hydrogel Coating and Its Application on Traditional Greek Spreadable Cheese

Gels **2023**, 9, 807.
https://doi.org/10.3390/gels9100807

J60. Constantinos E. Salmas, Areti Leontiou, Eleni Kollia, Konstantinos Zaharioudakis, Anna Kopsacheili, Learda Avdylaj, Stavros Georgopoulos, Vassilios K. Karabagias, Andreas Karydis-Messinis, George Kehayias, Charalampos Proestos, Aris E. Giannakas
Active Coatings Development Based on Chitosan/Polyvinyl Alcohol Polymeric Matrix Incorporated with Thymol Modified Activated Carbon Nanohybrids
Coatings **2023**, 13, 1503.
https://doi.org/10.3390/coatings13091503

J59. Aimilia A. Barmpaki, Evangelia E. Zavvou, Charalampos Drivas, Konstantinos Papapetros, Labrini Sygellou, Konstantinos S. Andrikopoulos, Stella Kennou, Nikolaos D. Andritsos, Aris Giannakas, Constantinos E. Salmas, Athanasios Ladavos, Panagiotis Svarnas, Panagiota K. Karahaliou, Christoforos A. Krontiras
Atomic layer deposition of ZnO on PLA/TiO2 bionanocomposites: Evaluation of surface chemistry and physical properties toward food packaging applications
J Appl Polym Sci. **2023**;e54465
https://doi.org/10.1002/app.54465

J58. Achilleas Kechagias, Christos Lykos, Vassilios K. Karabagias, Stavros Georgopoulos, Viktoria Sakavitsi, Areti Leontiou, Constantinos E. Salmas, Aris E. Giannakas, Ioannis Konstantinou
Development and Characterization of N/S-Carbon Quantum Dots by Valorizing Greek Crayfish Food Waste
Appl. Sci. **2023**, 13, 8730.
https://doi.org/10.3390/app13158730

J57. Constantinos E. Salmas, Eleni Kollia, Learda Avdylaj, Anna Kopsacheili, Konstantinos Zaharioudakis, Stavros Georgopoulos, Areti Leontiou, Katerina Katerinopoulou, George Kehayias, Anastasios Karakassides, Charalampos Proestos, Aris E. Giannakas
Thymol@Natural Zeolite Nanohybrids for Chitosan/Polyvinyl-Alcohol-Based Hydrogels Applied as Active Pads
Gels **2023**, 9, 570.
https://doi.org/10.3390/gels9070570

J56. Aris E. Giannakas, Vassilios K. Karabagias, Dimitrios Moschovas, Areti Leontiou, Ioannis K. Karabagias , Stavros Georgopoulos, Andreas Karydis-Messinis, Konstantinos Zaharioudakis, Nikolaos Andritsos, George Kehayias, Apostolos Avgeropoulos, Charalampos Proestos, Constantinos E. Salmas
Thymol@activated Carbon Nanohybrid for Low-Density Polyethylene-Based Active Packaging Films for Pork Fillets' Shelf-Life Extension
Foods **2023**, 12, 2590.
https://doi.org/10.3390/foods12132590

J55. Andreas Karydis-Messinis, Dimitrios Moschovas, Maria Markou, Elena Gkantzou, Anastasios Vasileiadis, Kyriaki Tsirka, Christina Gioti, Konstantinos C. Vasilopoulos, Eleni Bagli, Carol Murphy, Constantinos E. Salmas, Aris E. Giannakas, Efstathios Hatziloukas, Haralambos Stamatis, Alkis Paipetis, Michael A. Karakassides, Apostolos Avgeropoulos, Nikolaos E. Zafeiropoulos
Development, physicochemical characterization, and in vitro evaluation of chitosan-fish gelatin-glycerol hydrogel membranes for wound treatment applications
Carbohydrate Polymer Technologies and Applications **2023,** 6 100338
https://doi.org/10.1016/j.carpta.2023.100338

J54. Anastasios Karakassides, Abhijit Ganguly, Constantinos E. Salmas, Preetam K. Sharma, Pagona Papakonstantinou
Improving the Through-Thickness Thermal Conductivity of Carbon Fiber/Epoxy Laminates by Direct Growth of SiC/Graphene Heterostructures on Carbon Fibers
ACS Omega **2023**, 8, 24406−24417
https://doi.org/10.1021/acsomega.3c01951

J53. D.-P. Argyropoulos, P. Selinis, N. R. Vrithias, Z. Viskadourakis, C. E. Salmas, M.A. Karakassides, G. Kenakakis, C. Elmasides, F. Farmakis
Poly-Lactic Acid/Graphene Anode for Lithium-Ion Batteries Manufactured with a Facile Hot-Pressed Solvent-Free Process
J. Electrochem. Soc., **2023** 170 050515
https://doi.org/10.1149/1945-7111/acd0a8

J52. Areti Leontiou, Stavros Georgopoulos, Vassilios K. Karabagias, George Kehayias, Anastasios Karakassides, Constantinos E. Salmas, Aris E. Giannakas
Three-Dimensional Printing Applications in Food Industry. Review.
Nanomanufacturing **2023**, 3, 91–112.
https://doi.org/10.3390/nanomanufacturing3010006

J51. Constantinos E. Salmas, Aris E. Giannakas, Vassilios K. Karabagias, Dimitrios Moschovas, Ioannis K. Karabagias, Christina Gioti, Stavros Georgopoulos, Areti Leontiou, George Kehayias, Apostolos Avgeropoulos, Charalampos Proestos
Development and Evaluation of a Novel-Thymol@Natural-Zeolite/Low-Density-Polyethylene Active Packaging Film: Applications for Pork Fillets Preservation
Antioxidants **2023**, 12, 523.
https://doi.org/10.3390/antiox12020523

J50. Aris E. Giannakas, Constantinos E. Salmas, Dimitrios Moschovas, Vassilios K. Karabagias, Ioannis K. Karabagias , Maria Baikousi, Stavros Georgopoulos, Areti Leontiou, Katerina Katerinopoulou, Nikolaos E. Zafeiropoulos, Apostolos Avgeropoulos
Development, Characterization, and Evaluation as Food Active Packaging of Low-Density-Polyethylene-Based Films Incorporated with Rich in Thymol Halloysite Nanohybrid for Fresh "Scaloppini" Type Pork Meat Fillets Preservation.
Polymers 2023, 15, 282.
https://doi.org/10.3390/polym15020282

J49 Constantinos E. Salmas, Aris E. Giannakas, Dimitrios Moschovas, Eleni Kollia, Stavros Georgopoulos, Christina Gioti, Areti Leontiou, Apostolos Avgeropoulos, Anna Kopsacheili, Learda Avdylaj, Charalampos Proestos
Kiwi Fruits Preservation Using Novel Edible Active Coatings Based on Rich Thymol Halloysite Nanostructures and Chitosan/Polyvinyl Alcohol Gels.
Gels 2022, 8, 823.
https://doi.org/10.3390/gels8120823

J48 Anastasia V. Spyrou, Iosif Tantis, Maria Baikousi, Athanasios B. Bourlinos, Constantinos E. Salmas, Radek Zboril, Michael A. Karakassides
The use of activated bio-carbon derived from "Posidonia oceanica" sea-waste for Lithium-Sulfur batteries applications.
Sustainable Energy Technologies and Assessments 53 2022, 102748.
https://doi.org/10.1016/j.seta.2022.102748

J47 Aris E. Giannakas, Constantinos E. Salmas, Dimitrios Moschovas, Konstantinos Zaharioudakis, Stavros Georgopoulos, Georgios Asimakopoulos, Anastasios Aktypis, Charalampos Proestos, Anastasios Karakassides, Apostolos Avgeropoulos, Nikolaos E. Zafeiropoulos, George-John Nychas
The Increase of Soft Cheese Shelf-Life Packaged with Edible Films Based on Novel Hybrid Nanostructures
Gels 2022, 8, 539.
https://doi.org/10.3390/gels8090539

J46 Christina Gioti, Anastasios Karakassides, Georgios Asimakopoulos, Maria Baikousi, Constantinos E. Salmas, Zacharias Viskadourakis, George Kenanakis, Michael A. Karakassides
Multifunctional Carbon-Based Hybrid Foams for Shape-Stabilization of Phase Change Materials, Thermal Energy Storage, and Electromagnetic Interference Shielding Functions
Micro 2022, 2, 390–409.

https://doi.org/10.3390/micro2030026

J45 Panagiotis Ziogas, Alexios P Douvalis, Athanasios B Bourlinos, Christina Papachristodoulou, Nikolaos Chalmpes, Michael A Karakassides, Aris E Giannakas, Constantinos E Salmas
Isolation, Characterization and Hydrogen Sulfide H2S Sorption Properties at Room Temperature of Magnetite Sludge from Radiator
J Nanotechnol Res 2022; 4 (2): 97-110.
https://doi.org/10.26502/jnr.2688-85210032

J44. Aris E. Giannakas, Constantinos E. Salmas, Dimitrios Moschovas, Maria Baikousi, Eleni Kollia, Vasiliki Tsigkou, Anastasios Karakassides, Areti Leontiou, George Kehayias, Apostolos Avgeropoulos, Charalampos Proestos
Nanocomposite Film Development Based on Chitosan/Polyvinyl Alcohol Using ZnO@Montmorillonite and ZnO@Halloysite Hybrid Nanostructures for Active Food Packaging Applications
Nanomaterials 2022, 12, 1843.
https://doi.org/10.3390/nano12111843

J43 Georgios Asimakopoulos, Dimitrios Moschovas, Apostolos Avgeropoulos, Athanasios B Bourlinos, Iosif Tantis, Veronika Sedajova, Ondrej Tomanec, Constantinos E Salmas, Dimitrios Gournis, Michael A Karakassides
From Waste Tea to Carbon Rocket Fuels through a Piranha Solution-Mediated Carbonization Treatment
J Nanotechnol Res 2022; 4 (2): 31-44
https://DOI.org/10.26502/jnr.2688-85210029

J42 Maria Baikousi, Konstantinos Moustaklis, Angeliki Karakassides , Georgios Asimakopoulos, Dimitrios Moschovas, Apostolos Avgeropoulos, Athanasios B. Bourlinos, Alexios P. Douvalis, Constantinos E. Salmas, Michael A. Karakassides
Use of a Hybrid Porous Carbon Material Derived from Expired Polysaccharides Snack/Iron Salt Exhibiting Magnetic Properties, for Hexavalent Chromium Removal
Polysaccharides 2022, 3, 326–346.
https://doi.org/10.3390/polysaccharides3020019

J41 Aris E. Giannakas, Constantinos E. Salmas, Areti Leontiou, Dimitrios Moschovas, Maria Baikousi, Eleni Kollia, Vasiliki Tsigkou, Anastasios Karakassides, Apostolos Avgeropoulos, Charalampos Proestos
Performance of Thyme Oil@Na-Montmorillonite and Thyme Oil@Organo-Modified *Montmorillonite Nanostructures on the Development of Melt-Extruded Poly-L-lactic Acid Antioxidant Active Packaging Films*
Molecules 2022, 27, 1231.
https://doi.org/10.3390/molecules27041231

J40 Nikolaos Chalmpes, Maria Baikousi, Theodosis Giousis, Petra Rudolf, Constantinos E. Salmas, Dimitrios Moschovas, Apostolos Avgeropoulos, Athanasios B. Bourlinos, Iosif Tantis, Aristides Bakandritsos, Dimitrios Gournis, Michael A. Karakassides
Biomass Waste Carbonization in Piranha Solution: A Route to Hypergolic Carbons?
Micro 2022, 2, 137–153.
https://doi.org/10.3390/micro2010009

J39 Nikolaos Chalmpes, Georgios Asimakopoulos, Maria Baikousi, Constantinos E. Salmas, Dimitrios Moschovas, Apostolos Avgeropoulos, Athanasios B. Bourlinos, Iosif Tantis, Aristides Bakandritsos, Dimitrios Gournis, Michael A. Karakassides
Microwave Synthesis, Characterization and Perspectives of Wood Pencil-Derived Carbon,
Appl. Sci. 2022, 12, 410.
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C5.2. International Conferences

Summer Schools

Constantinos E. Salmas

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NetPore network, 2nd International Training School July 17-20, 2023, NCSR, Athens, Greece
E-COST-TRAINING_SCHOOL-CA20126-170723-f9349cc2-ed8f8458-260d-11ee-8ea8-0a58a9feac02

Conferences

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Αξιοποίηση παραπροϊόντων και αποβλήτων για την ανάπτυξη καινοτόμων υλικών για προσρόφηση H_2S, October 20-22, 2022, Chania, Crete, Greece.

GC36. Γ. Ασημακόπουλος, Ν. Χαλμπές, Μ. Μπαικούση, Ε. Νικολαράκη, Π. Παναγιωτοπούλου, Κ. Σαλμάς, Μ. Καρακασίδης, Δ. Γουρνής, Ι. Γεντεκάκης
Μεσοπορώδεις μοριακοί ηθμοί MCM-41 και παράγωγά τους με ψευδάργυρο, νικέλιο και κασσίτερο για προσρόφηση H_2S, October 20-22, 2022, Chania, Crete, Greece.

GC35. A.A. Barmpaki, E.E. Zavvou, M.A. Botzakaki, N.J. Xanthopoulos, A. Giannakas, C.E Salmas, P.K. Karahaliou, P. Svarnas, A. Ladavos. C.A. Krontiras
Influence of filler and/or ZnO-coating on the physical properties of Poly(lactic acid)/TiO_2 bionanocomposites, 36ο νελλήνιο Συνέδριο Φυσικής Στερεάς Κατάστασης και Επιστήμης Υλικών, Πανεπιστήμιο Κρήτης, Ηράκλειο, Ελλάδα 26-28 Σεπτεμβρίου 2022.

GC34. C. Salmas, M. Karakassides, D. Gournis, M. Baikousi
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GC30. Άρης Γιαννακάς, Κωνσταντίνος Σαλμάς, Νεκταρία-Μαριάνθη Μπάρκουλα, Αθανάσιος Λάνταβος
ΣΥΝΘΕΣΗ ΚΑΙ ΧΑΡΑΚΤΗΡΙΣΜΟΣ ΝΑΝΟΣΥΝΘΕΤΩΝ ΥΛΙΚΩΝ ΧΙΤΟΖΑΝΗΣ ΜΕ ΕΛΑΙΑ ΚΑΙ ΜΕ ΟΡΓΑΝΙΚΑ ΤΡΟΠΟΠΟΙΗΜΕΝΟ ΦΥΛΛΟΜΟΡΦΟ ΑΡΓΙΛΟ, 12ο Συνέδριο Χημείας Ελλάδας-Κύπρου, Θεσσαλονίκη, 8-10 Μαΐου 2015.

GC29. Άρης Γιαννακάς, Μαρία Βλάχα, Κωνσταντινος Σαλμάς, Αρετή Λεοντίου, Νεκταρία-Μαριάνθη Μπάρκουλα, Αθανάσιος Λάνταβος
Σύνθεση και Χαρακτηρισμός Νανοσύνθετων Υλικών Χιτοζάνης/Πολυβινυλαλκοόλης με Φυλλόμορφους Αργίλους, 4ο Πανελλήνιο Συνέδριο Πράσινης Χημείας και Βιώσιμης Ανάπτυξης, Ιωάννινα, Οκτώβριος 2014.

GC28**.** *S. Vaitsi, C. Salmas, O. Tsapekis, G. Androutsopoulos*
SINGLE GAS PERMEATION VIA ANODIC ALUMINA MEMBRANES. A DUAL KNUDSEN NUMBER APPROACH AS RELATES TO THE MASS TRANSPORT MECHANISM, 5ο Πανελλήνιο Συμπόσιο Ποροδών Υλικών, Κρήτη, 30 Ιουνίου-01 Ιουλίου 2011.

GC27. Σ. Βαΐτση, Κ. Σαλμάς, Ο. Τσαπέκης, Α. Κατσουλίδης, Γ. Ανδρουτσόπουλος
ΕΜΠΛΟΥΤΙΣΜΟΣ ΑΕΡΙΟΥ ΣΥΝΘΕΣΗΣ ΣΕ ΥΔΡΟΓΟΝΟ ΜΕ ΤΗ ΧΡΗΣΗ ΜΕΜΒΡΑΝΗΣ ΑΝΟΔΙΚΗΣ ΑΛΟΥΜΙΝΑΣ, 4ο Πανελλήνιο Συμπόσιο Ποροδών Υλικών, Πάτρα, 22-23 Οκτωβρίου 2009.

GC26. Κ. Ελαιόπουλος, Κ. Σαλμάς, Ε. Γρηγοροπούλου

ΠΡΟΡΡΗΣΗ ΙΣΟΘΕΡΜΩΝ ΡΟΦΗΣΗΣ ΑΤΜΩΝ ΠΤΗΤΙΚΩΝ ΟΡΓΑΝΙΚΩΝ ΕΝΩΣΕΩΝ ΣΕ ΜΕΣΟΠΟΡΩΔΗ ΥΛΙΚΑ ΜΕΣΩ ΤΟΥ ΜΟΝΤΕΛΟΥ CPSM, 7ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 3-5 Ιουνίου 2009.

GC25. Σ. Βαΐτση, Κ. Σαλμάς, Ο. Τσαπέκης, Γ. Ανδρουτσόπουλος, Α. Κατσουλίδης
ΜΕΜΒΡΑΝΗ ΑΝΟΔΙΚΗΣ ΑΛΟΥΜΙΝΑΣ ΓΙΑ ΔΙΑΧΩΡΙΣΜΟ ΑΕΡΙΩΝ ΜΙΓΜΑΤΩΝ, 7ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 3-5 Ιουνίου 2009.

GC24. Κ. Σαλμάς, Κ. Χατζηλυμπέρης, Θ. Καραστέργιος, Σ. Βαΐτση, Ο. Τσαπέκης, Γ. Ανδρουτσόπουλος
Αεριοποίηση Μιγμάτων Λιγνίτη ή Βιομάζας με CaO για Παραγωγή Αερίου Εμπλουτισμένου σε Υδρογόνο. Πειραματική και Θερμοδυναμική Μελέτη, 7ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 3-5 Ιουνίου 2009.

GC23. Γ. Ανδρουτσόπουλος, Κ. Σαλμάς
Χαρακτηρισμός Πορώδους Δομής Καταλυτών με τη Μέθοδο CPSM (Invited Lecture), 10ο Πανελλήνιο Συμπόσιο Κατάλυσης, Μέτσοβο, 3-4 Οκτωβρίου 2008.

GC22. Σ. Βαΐτση, Κ. Σαλμάς , Ο. Τσαπέκης, Γ. Ανδρουτσόπουλος
Παρασκευή και Χαρακτηρισμός Καταλυτικού Φορέα Μεμβράνης Ανοδικής Αλούμινας με Πρότυπη Πορώδη Δομή, 10ο Πανελλήνιο Συμπόσιο Κατάλυσης, Μέτσοβο, 3-4 Οκτωβρίου 2008.

GC21. Ο. Τσαπέκης, Κ. Σαλμάς , Σ. Βαΐτση, Γ. Ανδρουτσόπουλος.
Κινητική Μελέτη της Ομογενούς Καταλυτικής ΟξείδωσηςΥδροθείου σε Υδατικό Διάλυμα Χηλικού Σιδήρου (Fe^{3+}·NTA), 10ο Πανελλήνιο Συμπόσιο Κατάλυσης, Μέτσοβο, 3-4 Οκτωβρίου 2008.

GC20. Κ. Χατζηλυμπέρης, Κ. Σαλμάς, Σ. Βαΐτση, Κ. Καραγεώργος, Α. Σταματόγλου, Ο. Τσαπέκης, Γ. Ανδρουτσόπουλος.
Παραγωγή Υδρογόνου από Λιγνίτη/Βιομάζα. Αεριοποίηση Μιγμάτων Καυσίμου-CaO σε Αεριογόνο τύπου Περιστροφικού Κλιβάνου, 2ο Πανελλήνιο Συνέδριο Εναλλακτικών Καυσίμων και Βιοκαυσίμων-Biofuels, Λίμνη Πλαστήρα 26/4-27/4, 2007.

GC19. Κ. Χατζηλυμπέρης, Κ. Σαλμάς, Σ. Βαΐτση, Κ. Καραγεώργος, Α. Σταματόγλου, Ο. Τσαπέκης, Γ. Ανδρουτσόπουλος.
Χημική Μετατροπή Λιγνίτη για την Παραγωγή Αερίου Σύνθεσης Εμπλουτισμένου σε Υδρογόνο, 6ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα 31/5- 2/6, 2007.

GC18. Σ. Βαΐτση, Κ. Σαλμάς, Γ. Ανδρουτσόπουλος.
Πειραματική Διερεύνηση της Επίδρασης της Καμπυλότητας των Πόρων στον Ακριβή Προσδιορισμό της Ειδικής Επιφάνειας των Πορωδών Υλικών με χρήση του Μοντέλου CPSM-RSM, 6ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Αθήνα 31/5- 2/6, 2007.

GC17. Κ.Η.Σαλμάς, Σ.Θ.Βαΐτση, Γ.Π.Ανδρουτσόπουλος.
Χαρακτηρισμός Καταλυτών και Καταλυτικών Φορέων: Ενιαία Εφαρμογή της Μεθόδου CPSM για την Ανάλυση Δεδομένων Ρόφησης Αζώτου και Πορομετρίας Υδραργύρου, 2ο Πανελλήνιο Συμπόσιο Πορωδών Υλικών, Ε.Κ.Ε.Φ.Ε. ΔΗΜΟΚΡΙΤΟΣ, Αθήνα, 29-30 Σεπτεμβρίου 2005.

GC16. Α. Σταματόγλου, Κ. Σαλμάς. Γ. Ανδρουτσόπουλος.
Στοιχεία Σχεδιασμού Εγκατάστασης Εξευγενισμού Στερεών Καυσίμων Χαμηλής Ποιότητας για την Παραγωγή Εναλλακτικών Καυσίμων, 1ο Πανελλήνιο Συνέδριο Εναλλακτικών Καυσίμων, 27-28 Ιανουαρίου, Ε.Μ.Π., Αθήνα, 2005

GC15. Ο.Γ. Τσαπέκης, Κ.Η. Σαλμάς, Κ.Δ. Καραγεώργος, Γ.Π. Ανδρουτσόπουλος.
Κινητική Μελέτη της Ομογενούς Καταλυτικής Οξείδωσης Υδατικών Διαλυμάτων Fe^{2+}NTA με Οξυγόνο σε Διφασικό Αντιδραστήρα Διαβρεχόμενου Τοιχώματος, 8ο Πανελλήνιο Συμπόσιο Κατάλυσης, 30 Οκτωβρίου-1 Νοεμβρίου, Κύπρος, 2004.

GC14. Σ. Δ. Σκλαρή, Κ. Η. Σαλμάς, Δ. Ε. Πετράκης, Φ. Ι. Πομώνης, Γ. Π Ανδρουτσόπουλος.
Παρασκευή και Χαρακτηρισμός Νέων Καταλυτικών Φορέων $Al_{100-x}Fe_y$ με Έμφαση στη Συσχέτιση της Χημικής Σύστασης με το Μικροπορώδες και τους Παράγοντες Δαιδαλώδους και Συνδετότητας των Πόρων, 8ο Πανελλήνιο Συμπόσιο Κατάλυσης, 30 Οκτωβρίου-1 Νοεμβρίου, Κύπρος, 2004.

GC13. Γ. Π. Ανδρουτσόπουλος, Κ. Η. Σαλμάς.
Χαρακτηρισμός Πορωδών Καταλυτών: Εφαρμογή του Μοριακού Προτύπου των 'Συμπαγών Σφαιρών' για τη Διερεύνηση της Αλληλοσυσχέτισης των Ειδικών Επιφανειών Scpsm και Sbet 8ο Πανελλήνιο Συμπόσιο Κατάλυσης, 30 Οκτωβρίου-1 Νοεμβρίου, Κύπρος, 2004.

GC12. Σ. Βαΐτση, Κ. Σαλμάς, Γ. Ανδρουτσόπουλος.
*Παρασκευή και Χαρακτηρισμός Μεμβρανών Μικροπορώδους Ανοδικής Αλούμινας για Εφαρμογές σε Ετερογενείς Καταλυτικές Διεργασίες με Εκλεκτικό Διαχωρισμό Αερίων Προϊόντων,*8ο Πανελλήνιο Συμπόσιο Κατάλυσης, 30 Οκτωβρίου-1 Νοεμβρίου, Κύπρος, 2004.

GC11. Κ.Η. Σαλμάς, και Γ.Π. Ανδρουτσόπουλος.
Προσομοίωση Σύνθετων Ισοθέρμων Ρόφησης Αερίων με το Πρότυπο CPSM, 1ο Πανελλήνιο Συμπόσιο «Πορώδη Υλικά: Σύνθεση , Χαρακτηρισμός - Διεργασίες», Πανεπιστήμιο Ιωαννίνων, 21-22 Μαρτίου 2003, σελ. 47-52.

GC10. Κ.Η. Σαλμάς, και Γ.Π. Ανδρουτσόπουλος.
Ανάπτυξη Ανοργάνων Μεμβρανών: Παρασκευή και Χαρακτηρισμός Ανοδικής Αλουμίνας, 1ο Πανελλήνιο Συμπόσιο «Πορώδη Υλικά: Σύνθεση, Χαρακτηρισμός - Διεργασίες», Πανεπιστήμιο Ιωαννίνων, 21-22 Μαρτίου 2003, σελ. 13-18.

GC9. Γ. Ανδρουτσόπουλος, Κ. Σαλμάς, Α. Λάνταβος, Φ. Πομώνης.
Νέα Μέθοδος Προσδιορισμού Μικροπορώδους Βασισμένη στο Πρότυπο CPSM (Corrugated Pore Structure Model, 7ο Πανελλήνιο Συμπόσιο Κατάλυσης, Έδεσσα, 4-5 Οκτωβρίου 2002, σελ. 285-290.

GC8. Μ. Όξενκιουν-Πετροπούλου, Κ. Χατζηλυμπέρης, Κ. Σαλμάς, Κ. Όξενκιουν.
Σχεδιασμός και Ανάπτυξη Πιλοτικής Μονάδας Εφαρμογής Πρωτότυπης Μεθόδου Επεξεργασίας Ερυθράς Ιλύος, Αποβλήτου Μεταλλουργικής Δραστηριότητας Ελληνικής Βιομηχανίας, 3ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Τμήμα Χημικών Μηχανικών, ΕΜΠ, 31/5-2/6-2001, Αθήνα.

GC7. Κ. Σαλμάς, Γ. Τσεκούρας, Α. Τσετσέκου, Γ. Ανδρουτσόπουλος.
*Κινητική της Απασφάλτωσης Ατμοσφαιρικού Υπολείμματος Ελληνικού Αργού σε Αντιδραστήρα Διαλείποντος Έργου με Περιστρεφόμενα Καλάθια Καταλύτη***,** 3ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Τμήμα Χημικών Μηχανικών, ΕΜΠ, 31/5-2/6-2001, Αθήνα.

GC6. Κ. Η. Σαλμάς, Γ. Π. Ανδρουτσόπουλος.
*Ετερογενής Κατάλυση και Πορομετρία Υδραργύρου: Αλληλεπίδραση Φαινομένων Δομικής Παρεμπόδισης και Υστέρησης Γωνίας Επαφής στην Εμφάνιση Βρόχου Υστέρησης***,** 3ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Τμήμα Χημικών Μηχανικών, ΕΜΠ, 31/5-2/6-2001, Αθήνα.

GC5. Γ. Ανδρουτσόπουλος, Κ. Σαλμάς.
Υπολογισμός Δαιδαλώδους Πορωδών Υλικών, 5-9 Απριλίου 2001, Εργαστήριο Βιομηχανικής Χημείας, Πανεπιστήμιο Ιωαννίνων (Προσκεκλημένη Διάλεξη).

GC4. Κ. Σαλμάς, Γ. Ανδρουτσόπουλος.
Νέα Μέθοδος Πρόβλεψης Δαιδαλώδους Καταλυτών, 6ο Πανελλήνιο Συμπόσιο Κατάλυσης, Δελφοί, 3-4 Νοεμβρίου 2000.

GC3. Κ. Σαλμάς, Γ. Ανδρουτσόπουλος.
Πορώδης Δομή Μεμβράνης Ανοδικής Αλουμίνας: Νέα Μέθοδος Ανάλυσης, 6ο Πανελλήνιο Συμπόσιο Κατάλυσης, Δελφοί, 3-4 Νοεμβρίου 2000.

GC2. Κ.Σαλμάς, Γ. Ανδρουτσόπουλος.
Ανάπτυξη Αναλυτικού Προτύπου Προσομοίωσης του Βρόχου Υστέρησης Τριχοειδούς Συμπύκνωσης-Εξάτμισης Αζώτου. Πρόβλεψη της Εγγενούς Κατανομής Μεγέθους Πόρων, 2ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Proc. pp 557-560, Θεσσαλονίκη, 27-29 Μαΐου 1999

GC1. Κ.Σαλμάς, Γ. Ανδρουτσόπουλος.

Τομογραφία Μέσο-Μακρο-Πορώδους Δομής Καταλυτών μέσω της Σάρωσης του Βρόχου Υστέρησης Ποροσιμέτρου υδραργύρου, 5ο Πανελλήνιο Συμπόσιο Κατάλυσης, Proc. pp.180-186, Ολυμπία, 3-4 Oct.1997.

C.5.4. Research Projects

My research activity started as an undergraduate student practice on the research ship "AEGAEO", property of the Greek Center for Sea Research when a NATO project was run. More specifically my research activity evolved as follows.

A. Undergraduate Student Practice

Mediterranean sea water measurements, Greek Center for Sea Research, Research Vessel "AEGAEO", NTUA, 1991.

B. Integrated Master Thesis

Deasphalting Reaction Kinetics for Crude Oil Heavy Fractions

C. PhD Dissertation

Characterization of Porous Materials: Development of New Calculation Methods for Pore Structure Simulation.

D. Post-Doctoral Reasearch

1. School of Chemical Engineering, NTUA: "Syn-gas production enriched to hydrogen using a novel indirect heated method for solid fuels thermochemical treatment in a rotary kiln type reactor", Pilot plant scale unit, continuous flow process, 10 kg/h capacity, 2004-2009.
2. School of Chemical Engineering, NTUA: "Installation, Operation, and Study of a Pilot Plant Scale Unit for Neutralization of Red Mud, a Liquid Waste of the Aluminum Industry, for Scandium (Sc) and Rare Earths Recovery", Batch process, 100 lt/batch capacity, 2000-2001.
3. School of Chemical Engineering, NTUA: "Installation, Operation, and Study of a Pilot Plant Scale Unit for Biodiesel production", Semi-batch process 100 lt/batch capacity, 2006-2007.
4. School of Chemical Engineering, NTUA: "Installation, Operation, and Study of a Pilot Plant Scale Unit for Electricity Production using a Photovoltaic Array of 50 kVA", 2001-2003.
5. School of Chemical Engineering, NTUA: "Apparatus study for organic pollutants removal (toluene, benzene, heptane) via adsorption process into modified clinoptilolites, 2008-2009.

Other Research Projects:

32. Senior Researcher of the project *"Development and Demonstration in Pilot Plant Scale of a Novel, Efficient, and Environmentally Friendly Process for the Production of Clean Hydrogen and Electric Power from Biogas (Eco-Bio-H2-FCs)"*, EU, Partnership Agreement for the Developing Framework, Research-Creation-Novelty (ESPA-EDK), Τ1ΕΔΚ-00955, 2021-2023.

31. Senior Researcher of the project *"Advanced Building Materials for Energy Saving Level Upgrade Using Composite Phase Changing Materials (PCM) as Additives or/and Ceramic Foams Exhibiting Electromagnetic Shielding Properties (SEMI-WEB)"*, EU, Partnership Agreement for the Developing Framework, Research-Creation-Novelty (ESPA-EDK), Τ1ΕΔΚ-02073, 2021-2023.

30. PI of the project "Epirus Enterprising Project: Bodies support for the excellency development through research infrastructures funding" Prefecture of Epirus, 2021.

29. PI of the project "Consultancy and Experimental Measurements Services for Materials Engineering Subjects", University of Ioannina, 2019-today.

28. PI of the project "Boosting of circular economy by the valorization of agro-industrial wastes to produce activated carbon and other high added value products (BioCarbCycle)", EU, Partnership Agreement for the Developing Framework, RIS3, Crete, Greece.

27. Senior Researcher of the project *"(Agro-ID); Authenticity Identification and Enhancement of Competition of the Agro-nutritional, Local, Traditional Products Competition"*, INTEREG, Center for Research and Technology Hellas, Institute of Applied Bioscience, 2017-2019.

26. PI of the project *"Energy efficient agricultural communities for zero wastes in Hellas-FYROM borders (ZEFFIROS)"*, INTEREG-MIS 2018ΕΠ 5032743 (Subcontractor UoI), 2018-2019.

25. Senior Researcher of the Greek project "Research-Create-Innovate, Design and Development of a Complete and Documented System for the Traceability and Quality control of the Processed Agricultural and Fishing Products Focused on Consumer", Trust-Trace Τ1ΕΔΚ-04028, 2017-2019

24. PI of a Chemical Engineering Services project entitled "*Sulfur Depositions on Industrial Equipment Parts of Gypsum Panels Manufactory. Qualitative & Quantitative Analysis by SEM-EDX. Consultation report for modifications on the production line"*, Funded by KNAUF Industry, UoI, 2018.

23. *Researcher of the project "Oxygen Permeability Measurements through Packaging Films,* Funded by MINERVA S.A.", UoP, 2016.

22. *Post Doctoral Researcher-Trainer of the project "Design Using PC CAD Software, AutoCAD by Autodesk"*, EPEAEK-II, Funded by Ministry of Education, NTUA, 2008-2009.

21. *Post Doctoral Researcher-Trainer of the project "Teachers Training on Use and Exploitation of Informatics and Communication Technologies for Education",* PAKE, Funded by Ministry of Education, NTUA 2008.

20. *Post Doctoral Researcher of the project "Mechanism Investigation for Sorption of Volatile Organic Components on Solid Materials with Heterogeneous Pore Structure- Modeling of Equilibrium Data",* PEVE, *Funded by GSRT, NTUA*, 2008.

19. *Post Doctoral Researcher in the project "Installation and Operation of a Hybrid Solar Cells Pilot Plant",* THERMIE, Funded by European Commission, NTUA, 2005.

18. *Post Doctoral Researcher-Trainer of the project "Development of New Chemical Processes for the Production of Greek Biodiesel from Biomass Feedstocks and its Uses in The Greek Market"***,** Hellenic General Secretariat for Research and Technology (GSRT PYTHAGORAS I), 2004-2007.

17. Post-Doctoral Researcher, Trainer, and Certification Center Technical Support *of the project "Informatics and Communication Technologies for Education"***,** Funded by Ministry of Education, NTUA, 2006-2009.

16. *Post Doctoral Researcher of the project "Self-organized Meso-phases and Meso-structures with Transition Metals and Hand-like Texture for Catalytic Technologies and Hand-like Separations"*, Pythagoras-I, *Funded by GSRT, University of Ioannina*, 2004.

15. *Post Doctoral Researcher*-Administration support *of the project "Human Networks-Energy Technologies for Sustainable Development", Funded by GSRT, NTUA, 2003.*

14. Trainer for Postgraduate Student Practice *under the project "Human Networks-Energy Technologies for Sustainable Development", Funded by GSRT, NTUA, 2003.*

13. *Senior Researcher of the project "Reforming of NTUA Undergraduate Studies:* Development of Gas Chromatographer Simulator for Undergraduate Students Training", EPEAEK-II, *Funded by GSRT, NTUA, 2003.*

12. *Senior Researcher of the project "Reforming of NTUA Undergraduate Studies*: School of Chemical Engineering Web Page Construction", EPEAEK-II, *Funded by GSRT, NTUA, 2003.*

11. *Senior Researcher of the project "Reforming of the NTUA Undergraduate Studies:* Development of a Web Laboratory", EPEAEK-II, *Funded by GSRT, NTUA, 2003.*

10. *Senior Researcher of the project "Reforming of NTUA Undergraduate Studies:* Tutoring and Laboratory Teaching", EPEAEK-II, *Funded by GSRT, NTUA, 2003.*

9. Administration support *of the project "Reforming of NTUA Undergraduate Studies"*, EPEAEK-II, *Funded by GSRT, NTUA, 2003.*

8. Post-Doctoral Researcher of the project *"Upgrading of High Moisture Low Rank Coal to Hydrogen and Methane (A Sustainable Process with Integrated CO2 Removal and Ash Utilization),* Research Fund for Coal and Steel, Funded by European Commission, 2004-2007.

7. PhD Researcher of the project *"Materials for Gas Sensor Applications",* PENED-99, Funded by GSRT, NTUA, 2000-2001.

6. PhD Researcher of the project *"Pilot Plant Application and Demonstration of a New Method for Red Mud Treatment and Use (Process Waste of Greek Metallurgical Industry)",* EPET-II, Funded by GSRT, NTUA, 2000-2001.

5. Tutoring and Laboratory Teaching *of the project "Upgrade of Undergraduate Studies Curriculum for the three Hellenic Chemical Engineering Departments, NTUA, AUTh, Up"*, EPEAEK-I, Funded by Ministry of Education, NTUA, 1997-2000.

4. Administration support *of the project "Upgrade of Undergraduate Studies Curriculum for the three Hellenic Chemical Engineering Departments, NTUA, AUTh, UoP"*, EPEAEK-I, Funded by Ministry of Education, NTUA, 1997-2000.

3. *Junior Researcher of the project "Design Aspects Investigation for Allothermal Gasification Process of Greek Lignite and the Hydrogen Sulfide Separation from the Gasification Products",* PENED 97, Funded by GSRT, NTUA, 1997-1999.

2. *Tutor of the project "Invigoration of Tutoring and Laboratory Lessons"*, School of Chemical Engineering, NTUA, 1995 to 2002.

1. Undergraduate NTUA Student Practice via the project *"Mediterranean Water, Measurements by Oceanographic Scientific Ship "AEGAIO""*, Hellenic Center of Marine Research, 1991.

C6. Administrative work

C6.1. Administrative positions with responsibility

1. Head (temporary substitute) of Research Committee Accounting, University of Western Greece.
2. Legal Entity Appointed Representative (LEAR), University of Western Greece.
3. Head of Academic Issues Department, University of Western Greece.
4. Head of Quality Assurance Unit, University of Western Greece.
5. Assigned Scientific Advisor of Deputy Minister, Ministry of Environment, Energy, and Climate Change.

Γ6.2. Participation to Commissions and Societies

A. Department of Materials Science Engineering

2018-2020 Member of the curriculum commission.
2018-σήμερα Member of the commission for professional rights.
2020-σήμερα Member of the commission for undergraduate students' practice project.
2020-σήμερα Academic supervisor of students' practice.
2020-σήμερα Member of the commission for the consignment of instrument and other part.
2020-σήμερα Member of the commission for studies guide.

B. Other Participations

1. Certified evaluator for research programs, GSRT Decision 72703/10.05.2019.
2. Member of specific scientific committee of Technical Chamber of Greece for the Informatics to Chemical Engineering Science 2005-2007.

3. Member of the permanent committee of the Panhellenic Society of Chemical Engineers for professional rights issues 2007-2009.
4. Member of the workgroup of the Technical Chamber of Aetoloakarnania Greece with subject "Energy sources: Capabilities-Perspectives 2008-2009.
5. Member of the committee for negotiations with the international company for construction and valorization of the oil pipeline "Bourgas-Alexandoupoli", 2009.
6. Member of the special agency for the coordination of the environmental actions of the Ministry of Environment, Energy, and Climate changes, 2009.
7. MMember of the committee for the organization and prosecution of the 3rd Panhellenic Scientific Conference of Chemical Engineering, Athens 2001.
8. Subscribed member of the Technical Chamber of Greece (Record number 82964).
9. Subscribed member of the Panhellenic Society of Chemical Engineers.
10. Member of the Greek Company for Catalysis.

C7. Other Skills

Laboratorian Instruments Experience:

- EA-GC-IRMS (Isotope Ratio Mass Spectrometer)
- Nitrogen Porosimeter
- Mercury Porosimeter
- Gas chromatography
- XRD
- Oxygen Permation Analyzer
- FT-IR
- UV-nIR

Other knowledges

- Excellent knowledge on PC programming, use, hardware, pc networks, Microsoft Windows, Microsoft Office, FORTRAN, AutoCAD, ORIGIN, SPSS κ.α.
- Study, construction, and operation of electromechanical-electronic laboratorian devices.
- Very good knowledge and use of English language.

C8. Dinstinctions

1. 1986, representative of Amfilochia's high school to a competition of Greek Mathematical Company.
2. 1987, awarded by the Panhellenic Society of Roumeliotes for the succeed to enter the School of Chemical Engineering, NTUA, after panhellenic writing examinations
3. 1999, Scholarship from the Greek State Scholarships Foundation after winning in a panhellenic writing competition in Chemical Engineering Area for PhD candidates.
4. 2000, awarded by the D. Thomaidi Legacy for a very novel publication to an international peer-reviewed journal.
5. 2015, Awarded Reviewer by the Microporous and Mesoporous Materials peer-reviewed journal.

C9. Engineering Studies, Developments, and Constructions

1. *Techno-economical study for the installation of a water paints production industry, Greek army* 691 BEB, 1999.
2. *Techno-economical study for the installation of an ANTI-IR paints production industry, Greek army* 691 BEB, 1999.
3. Study of a gas exhaust system for a red mud treatment pilot plant, project EPET-II-Work 98BIA-29.
4. Study of the V6 neutralization vessel installation for a red mud treatment pilot plant, project EPET-II-Work 98BIA-29.
5. Secrecy agreement with JOHNSON MATTHEY PUBLIC LIMITED COMPANY for the development of a nitrogen porosimetry simulator software in the framework of the EUROKIN CONSORTIUM.