Curriculum Vitae

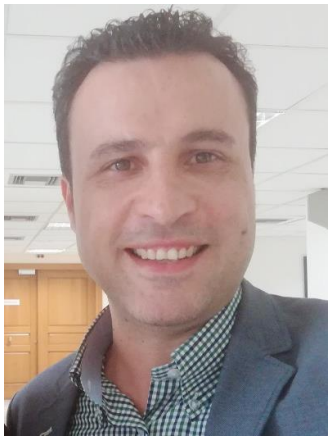
Research and Scientific Activity

Dr George Avgouropoulos

Last update: May 2025

BRIEF CURRICULUM VITAE

PERSONAL



Name/Surname:	George Avgouropoulos
Father's name:	Athanasios
Mother's name:	Harikleia
Date of birth:	11/07/1974
Place of birth:	Athens
Nationality:	Hellenic
Marital status:	Married (two children)
Home address:	Andrea Papandreou 13, Patras, GR-26332
	Tel.: +30 2611 110735, Mobile: +30 6973216076
Office address:	Department of Materials Science
	University of Patras, Rio, GR-26504, Patras, Greece
	Tel.: +30 2610 996312 (off.); +30 2610 997798 (lab)
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EDUCATION

1992-1997 **University of Patras**, Patras, Greece,
Diploma in Chemical Engineering, October 1997, *Grade*: 7.03/10.00
Diploma Thesis: "In vitro calcification of bioprosthetic heart valves"
Advisor: Prof. P.G. Koutsoukos

1997-2000 **Department of Chemical Engineering, University of Patras & FORTH/ICE-HT**, Patras, Greece
M.Sc. in Energy and Environment, University of Patras
Thesis: "CuO-CeO_2 catalysts for application in fuel processors"
Advisor: Prof. X.E. Verykios

1997-2003 **Department of Chemical Engineering, University of Patras & FORTH/ICE-HT**, Patras, Greece
Ph. D in Chemical Engineering, University of Patras (Date of Ph. D defense: July 2003)
Thesis: "Development of a catalytic process for the selective catalytic oxidation of CO in the presence of excess hydrogen"
Advisor: Prof. X.E. Verykios

FELLOWSHIPS/AWARDS/DISTINCTIONS/RANKING

Feb. 1998 – Jul. 2003 **Postgraduate Fellow of FORTH/ICE-HT**, Patras, Greece

Feb. 2006 - Feb. 2007 **Postdoctoral Fellowship (State Scholarship Foundation,** Greece)

Jun. 2006 The paper No. 3 (**G. Avgouropoulos et al. *Catal. Today* 75 (2002) 157-167**", has been recognised in the "**Top-50 most cited articles**" as published in in Elsevier's Catalysis journals 2001 2005 (as cited by Scopus)

Jun. 2007 The paper No. 3 (**G. Avgouropoulos et al. *Catal. Today* 75 (2002) 157-167**", has been recognised in the "**Top-50 most cited articles**" as published in in Elsevier's Catalysis journals 2002

	2006 (as cited by Scopus)
Jun. 2008	The paper No. 4 (**G. Avgouropoulos et al.** ***Appl. Catal. A: Gen.*** **244 (2003) 155-167**", has been recognised in the "**Top-50 most cited articles**" as published in in Elsevier's Catalysis journals 2003-2007 (as cited by Scopus)
Sep. 2014	Best poster award for the work: "Pt/TiO_2 and Pt/CeO_2 nanostructured materials for fuel cell applications" presented by A. Paxinou (***post-graduate student under my supervision***) at the 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete, Greece, 21-24 September, 2014.
Jul. 2016	Young Researcher Award given to P. Angelopoulou (***Ph.D. student under my supervision***) for best oral presentation of the work:"Combustion-synthesized LiMn-based spinel nanostructures as cathode materials for lithium-ion batteries nanostructured materials for fuel cell applications" during the 13th International Conference on Nanosciences & Nanotechnologies (NN16)
Jul. 2017	PhD fellowship granted to P. Angelopoulou (***Ph.D. student under my supervision***) by the Hellenic Foundation for Research and Innovation (HFRI-ELIDEK)
Oct. 2021	PhD fellowship granted to K. Kappis (***Ph.D. student under my supervision***) by the Hellenic Foundation for Research and Innovation (HFRI-ELIDEK)
Oct. 2023, Sept. 2024	Named in the World's Most Cited Scientists by Stanford University https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw (Table_1_Authors_career_2022_pubs_since_1788_wopp_extracted_202310.xlsx)

EMPLOYMENT/OCCUPATION

Feb. 1998 – Jul. 2003	**Postgraduate researcher of FORTH/ICE-HT**, Patras, Greece
Jul. 2003 – Dec. 2016	**Collaborating researcher of FORTH/ICE-HT**, Patras, Greece
Sept. 2005 – Jul. 2010	**Assistant Professor** (fixed term), Department of Agricultural Products Technology, School of Agricultural Technology,

	Technological Educational Institution of Kalamata, Greece
Oct. 2008 – Aug. 2013	**Lecturer** (fixed term), Department of Materials Science University of Patras, Greece
Sept. 2009 – Dec. 2009	**Consultant** of ADVENT TECHNOLOGIES S.A. (development of innovative materials for fuel cells)
Jan. 2014 – Sep. 2016	**Lecturer** in the field of: "Materials engineering in microphase-nanophase or/and molecular or/and biomolecular materials or/and devices – experimental direction" Department of Materials Science, University of Patras, Greece
Oct. 2016 – Oct. 2020	**Assistant Professor** in the field of: "Materials engineering in microphase-nanophase materials or/and devices – experimental direction", Dep. Of Materials Science, Univ. of Patras, Greece
Oct. 2020 – June 2024	**Associate Professor** in the field of: "Materials engineering in microphase--nanophase materials and devices for energy chemical technologies", Dep. of Materials Science, Univ. of Patras, Greece
June 2024 – today	**Professor** in the field of: "Materials engineering in microphase -nanophase materials and devices for energy chemical technologies", Dep. of Materials Science, Univ. of Patras, Greece
Feb. 2024 – today	**Collaborating Academic Faculty**, Industrial Systems Institute (ISI), ATHENA research center

TEACHING EXPERIENCE

Undergraduate Programs

- "**Electronic Materials Production Processes**" (teaching assistant), core course of 3rd year, Chemical Engineering Department, University of Patras (1997-1998).
- "**Organic Chemistry Laboratory**", (teaching assistant), core course of 2nd year, Chemical Engineering Department, University of Patras (1998-2000).
- "**Polymers Laboratory**" (teaching assistant), core course of 3rd year, Chemical Engineering Department, University of Patras (1998-2000).
- "**Physicochemical & Instrumental Analysis of Vegetative Products**" core course of 2nd year, Department of Agricultural Products Technology, School of Agricultural Technology,

Technological Educational Institution of Kalamata (2005-2010).

- "**Topics in Industrial and Technological Applications of Materials I**", optional course of 4th year, Department of Materials Science, University of Patras (winter semesters 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014).
- "**Topics in Industrial and Technological Applications of Materials II**", optional course of 4th year, Department of Materials Science, University of Patras (spring semesters 2008-2013, 2018/2019).
- "**Materials Science Laboratory III**", core course of 2nd year, Department of Materials Science, University of Patras (spring semesters 2008-2018).
- "**Materials Science Laboratory III**", core course of 2nd year, Department of Materials Science, University of Patras (spring semesters 2008-2018).
- "**Physical Chemistry Laboratory**", core course of 3nd year, Department of Materials Science, University of Patras (winter semesters 2009-2024).
- "**Materials Science Laboratory I**", core course of 1st year, Department of Materials Science, University of Patras (spring semesters 2010/2011, 2012/2013, 2017-2024).
- "**Materials and Environment**", optional course of 3rd year, Department of Materials Science, University of Patras (spring semesters 2010-2017, winter semesters 2019-2024).
- "**Chemistry III**", core course of 3rd year, Department of Materials Science, University of Patras (winter semesters 2010-2013).
- "**Physics Laboratory II**", core course of 1st year, Department of Materials Science, University of Patras (spring semester 2011/2012).
- "**Chemistry Laboratory I**", core course of 1st year, Department of Materials Science, University of Patras (winter semesters 2012-2017).
- "**Chemistry Laboratory**", core course of 1st year, Department of Materials Science, University of Patras (spring semesters 2017-2023).
- "**Chemistry I**", core course of 1st year, Department of Materials Science, University of Patras (winter semester 2016-2020).
- "**Materials for Renewable Energy**", optional course of 4th year, Department of Materials Science, University of Patras (spring semesters 2013-2018).
- "**Physical Chemistry**", core course of 2nd year, Department of Materials Science, University of Patras (winter semesters 2014-2024).
- "**Materials for Catalytic Processes**", optional course of 4th year, Department of Materials Science, University of Patras (spring semesters 2019-2024).

- Supervisor of several research diploma thesis (>30)

Postgraduate (MSc and PhD) Programs

- "Environmental Applications & Impacts of Nanotechnology", optional course of Interdisciplinary Postgraduate Program on "Environmental Sciences", University of Patras (winter semesters 2015/2016, 2019-2024).
- "Design, Synthesis and Processing of Advanced Materials", core course of 1st year, Postgraduate Program of Materials Science Department, University of Patras (spring semesters 2014-2024).
- "Micro/Nano-Technology of Materials", core course of 1st year, Postgraduate Program of Materials Science Department, University of Patras (winter semesters 2018-2024).
- Supervisor of the Master Diploma Thesis of Pinelopi Angelopoulou, "Development of Li-Mn spinel nanostructures for energy applications", Department of Materials Science, University of Patras, 2015.
- Supervisor of the Master Diploma Thesis of Alexandra Paxinou, "Development of Pt/CeO_2 and Pt/TiO_2 nanostructured catalysts for the production of hydrogen from methanol", Department of Materials Science, University of Patras, 2015.
- Supervisor of the Master Diploma Thesis of Konstantinos Kappis (**Caratheodori scholarship; University of Patras program**), "Effect of the synthesis parameters of hydrothermal method on the catalytic properties of nanoceria", Department of Materials Science, University of Patras, 2018.
- Supervisor of the Master Diploma Thesis of Christos Tapeinos, "Photoelectrocatalytic production of hydrogen", Department of Materials Science, University of Patras, July 2020.
- Supervisor of the ***PhD Thesis*** of Pinelopi Angelopoulou (**HFRI scholarship**), "Development of anodic and cathodic nanostructured materials for lithium batteries applications", Department of Materials Science, University of Patras, (Date of defense: March 2020).
- Supervisor of the Master Diploma Thesis of Maria Mpiliou, "Physicochemical properties of natural oxides of iron (Fe_2O_3, Fe_3O_4, $Fe^{2+}Fe^{3+}{}_2O_4$) for CO oxidation", Department of Materials Science, Interdisciplinary Postgraduate Program on "Environmental Sciences", University of Patras, 2023.
- Supervisor of the ***PhD Thesis*** of Christos Papadopoulos (**Caratheodori scholarship; University of Patras program**), "Tuning the physicochemical properties of nanostructured

copper-cerium catalysts via a hydrothermal method", Department of Materials Science, University of Patras, (Date of defense: May 2023).

- Supervisor of the ***PhD Thesis*** of Konstantinos Kappis (**HFRI scholarship**), "Development of catalytic methanol processors for application in high temperature fuel cells", Department of Materials Science, University of Patras (Date of defense: September 2023).
- Supervisor of the ***PhD Thesis*** of Konstantinos Papageorgiou, "Functional CuZn catalysts for low temperature hydrogen production via steam reforming of methanol", Department of Materials Science, University of Patras, 2020-2023 (ongoing).

Other Programs

- "Modern materials for renewable energy sources" & "XRF, XPS and AES", Program for Knowledge Updating of University Graduates entitled "Materials Science for Advanced Technologies", Department of Materials Science, University of Patras (02/2015-09/2015)

PROFESSIONAL SOCIETIES AND ACTIVITIES

- ***Member of National Committee for the development of the Hellenic Hydrogen Strategy***
- ***Member of National Committee of Ministry of Energy for the evaluation of Important Projects of Common European Interest in hydrogen technologies***
- ***Member of Disciplinary Committee*** of the Technical Chamber of Greece / Regional Department of Western Greece
- ***Reviewer*** in 35 international journals (ISI-Journal Citation Reports 2022):

  … of Elsevier…

  Journal of Catalysis, ***Catalysis Communications***, ***Applied Catalysis A: General***, ***Applied Catalysis B: Environmental***, ***International Journal of Hydrogen Energy***, ***Fuel Processing Technology***, ***The Chemical Engineering Journal***, ***Journal of Colloid and Interface Science***, ***Journal of Physics and Chemistry of Solids***, ***Journal of Alloys and Compounds***, ***Ceramics International***, ***Electrochimica Acta***, ***Materials Science in Semiconductor Processing, Energy Conversion and Management, Applied Surface Science***, ***Catalysis Today***, ***Journal of Power Sources***, ***Journal of Molecular Catalysis A: Chemical***, ***Renewable Energy, Applied Energy***

  … of Springer …

  Catalysis Letters,

  … of Wiley …

  Energy Science & Engineering, ChemSusChem, ChemCatChem

… of ACS …

Journal of the American Chemical Society, ***ACS Applied Materials & Interfaces***, ***The Journal of Physical Chemistry, ACS Applied Nanomaterials, Industrial & Engineering Chemistry Research***

… of MDPI …

Catalysts, Energies, Processes, Nanomaterials, Materials, Sensors

- Romanian Research Council reviewer
- Hong-Kong Research Council reviewer
- Polish Research Council Reviewer
- Greek GSRT reviewer
- Greek HFRI reviewer
- Editorial Board Member, *The Open Environmental Engineering Journal* (Bentham Science), 2008-
- Editorial Board Member (***Associate Editor*** for Fuel Cells, Electrolyzers and Membrane Reactors), Frontiers in Energy Research, 2008-
- Editorial Board Member (***Associate Editor*** for Non-Carbon-Based Fuels), Frontiers in Fuels, 2008-
- Editorial Board Member (***Section Editor***), *Energies*, (MDPI), 2019-
- ***Editor*** *of Book: "Environmental catalysis over gold-based materials", RSC, August 2013.*
- ***Guest Editor*** *of SI: Tuning the Physicochemical Properties of Nanostructured Materials Through Advanced Preparation Methods (Nanomaterials, MDPI, 2020)*
- ***Guest Editor*** *of SI: Nanomaterials for Fuel Cell Systems (Catalysts, Energies, Materials, Nanomaterials, Polymers, 2023-)*
- Technical Chamber of Greece
- Association of Greek Chemical Engineers
- Hellenic Catalysis Society
- Session Chair, 4th EFCATS School on Catalysis, St. Petersburg, Russia, 2006.
- Session Chair, 9th Panhellenic Catalysis Symposium, Leykada, Greece, 2006.
- Member of the Organizing Committee, Meeting for Materials Science & Industry, 10 years of operation of the Department of Materials Science, Patras, Greece, June 1st, 2010.
- Session Chair, XIX International Conference on Chemical Reactors, September 5-9, 2010, Vienna, Austria.
- Session Chair, 12th Panhellenic Catalysis Symposium, Chania, Greece, 2012.

- Member of the Scientific Committee, 12th Panhellenic Catalysis Symposium, Chania, Greece, 2012.
- Member of the Scientific Committee, 13th Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 2014.
- Session Chair, 10th Panhellenic Conference on Chemical Engineering, Patras, Greece, 2015.
- Member of the Scientific Committee, "Innovative Manufacturing Engineering & Energy International Conference, IManEE 2016, Kallithea Chalkidiki, Greece, 2016
- Member of the Scientific Committee, 14th Panhellenic Catalysis Symposium, Patras, Greece, 2016.
- Member of the Organizing Committee, 14th Panhellenic Catalysis Symposium, Patras, Greece, 2016.
- Session Chair, EMN Dubai Meeting, Energy Materials Nanotechnology, Dubai, United Arab Emirates, 2016.
- Member of the Scientific Committee, 15th Panhellenic Catalysis Symposium, Ioannina, Greece, 2018.
- Session Chair, 15th Panhellenic Catalysis Symposium, Ioannina, Greece, 2018.
- Member of the Scientific Committee, Virtual Conference of Young Scientists: Mineral Resources-Environment-Chemical Engineering, Kozani, West Macedonia, Greece, 2021.
- Member of the Organizing Committee, 8th International Conference on micro and nanosciences and nanotechnologies (Micro&Nano2020), Patras, Greece, 2021.
- Session Chair, European Hydrogen Energy Conference 2022 (EHEC2022), Madrid, Spain, 2022.
- Member of the Scientific Committee, 16th Panhellenic Catalysis Symposium, Chania, Greece, 2022.
- Member of the Scientific Committee, 17th Panhellenic Catalysis Symposium, Paphos, Cyprus, 2024.
- Session Chair, 17th Panhellenic Catalysis Symposium, Paphos, Cyprus, 2024

ADMINISTRATIVE ACTIVITIES

- Member of the General Assembly in the Department of Materials Science (University of Patras, 2014-today)
- Member of several committees in the Department of Materials Science (University of

Patras): Coordination of Research Proposals, Public Relations and Promotion (Seminars coordinator until 2018), Infrastructure and Laboratory Operation (-today), Finance (2018-2020, coordinator), Health & Safety (2019-today, coordinator)

- Member of Interdisciplinary Committee of Interdisciplinary Postgraduate Program on "Environmental Sciences", University of Patras (2015-today)
- Member of the National Committee for the development of the Hellenic Hydrogen Strategy
- Member of the Disciplinary Committee of the Technical Chamber of Greece / Regional Department of Western Greece

INVITED TALKS

Nov. 2007 **"Copper-based catalysts for methanol processors"**, Invited, Institute of Catalysis, Bulgarian Academy of Sciences, Sofia Bulgaria, 26 November 2007.

Sept. 2010 **"Development of an Internal Reforming Methanol Fuel Cell: Concept, Challenges and Opportunities"**, Keynote presentation, XIX International Conference on Chemical Reactors, September 5-9, 2010, Vienna, Austria.

Nov. 2014 **"Catalytic and Technological Aspects of Reforming Methanol to Electricity Inside a Fuel Cell"**, Keynote presentation, 2014 AIChE Annual Meeting, November 16-21, 2014, Atlanta, USA.

Apr. 2016 **"Technological aspects of internal reforming methanol fuel cells for portable applications"**, Invited, EMN Dubai Meeting, Energy Materials Nanotechnology, Dubai, United Arab Emirates, April 1-4, 2016.

May 2018 **"Development of a Portable Internal Reforming Methanol High Temperature PEM Fuel Cell System"**, Invited, Hydrogen Innovation Festival, Tomar, Portugal, May 29th, 2018.

July 2020 **"Prospects of Electromobility via Hydrogen Technologies"**, Invited, Energy e-Forum 2020, Patras, Greece, July 13-17, 2020.

Nov. 2021 **"Electrification of Transportation Sector via Hydrogen Technologies"**, Invited, 1st Patras Green Transport Conference, Patras, Greece, November 5th, 2021.

Oct. 2022 **"The national strategy for hydrogen and the role of catalysis towards**

climate neutrality", Keynote presentation, 16th Panhellenic Catalysis Symposium, Chania, Greece, October 20-22, 2022.

Nov. 2022 **"The Role of Hydrogen Technologies in the Transport Sector on the Way to Climate Neutrality"**, Invited, 2nd Patras Green Transport Conference, Patras, Greece, November 18th, 2022.

Mar. 2023 **"The national hydrogen strategy and the role of catalysis on the path to climate neutrality"**, Invited, Department of Chemistry, University of Cyprus, March 1st, 2023.

RESEARCH ACTIVITY

(A) Synthesis and characterization of nanomaterials

(B) Heterogeneous nanocatalysts

(C) Alternative energy sources: Catalytic hydrogen technologies

(D) Environmental catalytic chemical processes

(E) Fuel Cell systems

(F) Batteries

- ***Nanomaterials: Synthesis and characterization***

  Preparation of nanostructured oxides (especially mixed oxides $CuCeO_x$ and spinel oxides $CuMnO_x$), precious metal-based catalysts (i.e. Au/Fe_2O_3, Au/CeO_2, Pt/CeO_2, Pt/Al_2O_3 and ((Pt, Au, PtAu, CuO, CuCeOx)/CNTs/Graphene), $LiMn_2O_4$-based nanostructured spinels and carbon nanonstructures via various chemical methods (impregnation, coprecipitation, sol-gel, and especially hydrothermal and combustion methods). Materials characterization by atomic adsorption spectroscopy (AAS), N_2 adsorption, X-ray powder diffraction (XRD), electron microscopy (TEM, SEM), X-ray photoelectron spectroscopy (XPS), Fourier-transform infrared spectroscopy (FTIR), thermogravimetric analysis (TGA), electrochemical impedance spectroscopy (EIS), cyclic voltammetry, polarization measurements, transient-isotopic methods (SSITKA), temperature-programmed methods (TPR, TPD), in-situ and operando techniques. (Published papers 1-71).

- ***Catalytic processes for the production and purification of hydrogen for fuel cell applications***:

  a) Production of hydrogen via steam reforming of methanol,

b) Water-gas shift reaction,

c) Removal of CO from hydrogen-rich mixtures via preferential CO oxidation.

(Published papers 1, 3, 4, 5, 7, 9, 11-15, 17-29, 32, 33, 34, 36, 37, 39, 40, 43, 44-46, 48, 49-53, 64, 65, 67, 68).

- ***Environmental catalysis for air pollution control (CO and VOCs abatement)***:
  Catalytic oxidation of CO and ethanol. (Published papers 1, 10, 16, 31, 32, 47, 53, 70).
- ***Development of a single methanol-fuelled power unit (Internal Reforming Alcohol Fuel Cell) based on a methanol reformer and a high temperature PEM (or molten proton conductor) fuel cell.*** Incorporation of a methanol reforming catalyst into the anodic compartment (bi-functional anode) of a high-temperature, polymer electrolyte (or molten proton conductor electrolyte) fuel cell (HT-PEMFC), so that methanol reforming takes place inside the fuel cell stack (internal reforming).
  (Published papers 28, 33, 34, 35, 37, 39, 40, 43, 49, 63, 64, 66-68).
- ***Photoelectrocatalytic processes.***
  Degradation of organic pollutants (published paper 47).
  Production of hydrogen (published papers 46 and 51).
- ***Nanostructured electrodes for Li-ion and Na-ion batteries.***
  $LiMn_2O_4$-based nanostructured spinels, graphene- and biochar-based electrodes.
  (Published papers 41, 54-59, 61, 62, 69).

PARTICIPATION/COORDINATION OF RESEARCH PROJECTS (1998-today)

Participation (preparation, submission, execution, report, management) in several research projects financed either by the Greek Ministry of Development or EC. These include a number of Joint research and technological programmes between Greece and Slovenia (1998-2001, "Preferential oxidation of carbon monoxide", "Characterization of electrocatalysts", "Development of metal-doped molecular sieves") Czech Republic (2001-2003, "Catalytic oxidation of VOCs"), Bulgaria (2005-2007, "Methanol reforming and water-gas shift activity of gold and copper-based catalysts") and Poland (2006-2008, "Catalytic steam reforming of ethanol"). In addition, the following research projects (lab budget > 1 million euros) were (are) funded:

<u>by EC:</u>

- EPAN E-25 entitled "**Development of a methanol fuelled fuel cell system**"
  (01-07-2004 to 31-10-2005)

- HY2SEPS entitled "**Hybrid hydrogen-carbon dioxide separation systems**"
  (01-02-2006 to 31-05-2008)
- APOLLON-B entitled "**Polymer electrocatalysts and non noble metal electrocatalysts for high temperature PEM fuel cells**"
  (15-09-2008 to 31-07-2009)
- IRAFC (senior researcher; total budget: 2.53 m€) entitled "**Development of an Internal Reforming Alcohol High Temperature PEM Fuel Cell Stack**"
  (01-01-2010 to 30-06-2013)
- IRMFC (scientific coordinator; total budget: 3.26 m€) entitled "**Development of a Portable Internal Reforming Methanol High Temperature PEM Fuel Cell System**"
  (01-05-2013 to 31-10-2016)

by GSRT:

- ISuMaRe4PV (senior researcher; Research-Create-Innovate, Call A; total budget: 998,280€ (906,624€ funded by GSRT) entitled "**Integrated PV Surveillance, Management and Revitalization System**"
  (10/2018 to 09/2021)
- METHCELL (scientific coordinator; bilateral programme Greece-China; total budget: 442,500 € (400k€ funded by GSRT) entitled "**A reformed methanol fuel cell based on intermediate-temperature molten proton conductor electrolyte**"
  (10/2019 to 4/2023)
- BaNaNa (scientific coordinator; Research-Create-Innovate, Call B; total budget: 998,280€ (906,624€ funded by GSRT) entitled "**Development of Sodium-ion batteries based on naturally derived anode materials**"
  (7/2020 to 7/2023)

by HFRI:

- Scholarship for PhD studies (Ms Pinelopi Angelopoulou; No2257; 1st Call of HFRI), budget: 18,900 € (funded by Hellenic Foundation for Research and Innovation) entitled "**Development of anodic and cathodic nanostructured materials for lithium batteries**" (8/2017 to 11/2018)
- Scholarship for PhD studies (Mr Konstantinos Kappis; No6539; 3rd Call of HFRI), budget: 10,000 € (funded by Hellenic Foundation for Research and Innovation) entitled "**Development of Catalytic Methanol Processors for High Temperature Fuel Cells**" (2022-2023)

by University of Patras

- C. Caratheodory 2015: NANOKAT (scientific coordinator; total budget: 30000€ (funded by Research Committee of University of Patras) "**Tuning the physicochemical properties of nanostructured copper-cerium catalysts via a hydrothermal method**" (7/2016 to 9/2019)

PUBLICATIONS/PRESENTATIONS

A.	**Publications in peer-reviewed international journals:**	71
	Citations (Scopus, May 2025):	5288
	Citations (Google Scholar, May 2025):	6331
	h index (May 2025):	34 (Scopus)
		35 (Google Scholar)
	i10-index	62 (Google Scholar)
	i100-index	17 (Google Scholar)
B.	**Presentations-publications in international conferences:**	64
C.	**Presentations-publications in national conferences:**	52
D.	**Patents:**	2
E.	**Books-book chapters-special issues**	4
F.	**Thesis:**	3

A. PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS

1. **G. Avgouropoulos**, T. Ioannides, H. Matralis, J. Batista, S. Hocevar, "CuO – CeO_2 mixed oxide catalysts for the selective oxidation of carbon monoxide in excess hydrogen" *Catal. Lett*. 73 (2001) 33-40.
   Impact factor: 2.3, Times cited: 266
   Second most cited article among the research articles published in Catalysis Letters in 2001.

2. A. Ristic, **G. Avgouropoulos**, T. Ioannides, V. Kaucic, "Investigation of catalytic activity of framework and extraframework cobalt and manganese in

MeAPO-34 prepared from fluoride medium"
Stud. Surf. Sci. Catal. 135 (2001) 314.
Impact factor: 0.307, Times cited: 1

3. **G. Avgouropoulos**, T. Ioannides, C. Papadopoulou, J. Batista, S. Hocevar, H. Matralis, "A comparative study of Pt/γ–Al_2O_3, Au/α–Fe_2O_3 and CuO–CeO_2 catalysts for the selective oxidation of carbon monoxide in excess hydrogen"
Catal. Today 75 (2002) 157-167.
Impact factor: 5.2, Times cited: 526
Most cited article among the research articles published in Catal. Today in 2002.
Recognised in the "Top-50 most cited articles" as published in Elsevier's Catalysis Journals 2001-2005 and 2002-2006 (as cited by Scopus).

4. **G. Avgouropoulos**, T. Ioannides, "Selective CO oxidation over CuO-CeO_2 catalysts prepared via the urea-nitrate combustion method"
Appl. Catal. A: Gen. 244 (2003) 155-167.
Impact factor: 4.7, Times cited: 595
Most cited article among the research articles published in Appl. Catal. A in 2003.
Recognised in the "Top-50 most cited articles" as published in Elsevier's Catalysis Journals 2003-2007 (as cited by Scopus).

5. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Production of hydrogen via combined steam reforming of methanol over CuO-CeO_2 catalysts"
Catal. Commun. 5 (2004) 231-235.
Impact factor: 3.7, Times cited: 101
Featured on the ScienceDirect TOP25 Hottest Articles (2004) within Catal. Commun.
Fourth most cited article among the research articles published in Catal. Commun. in 2004.

6. A. Machocki, T. Ioannides, B. Stasinska, W. Gac, **G. Avgouropoulos**, D. Delimaris, W. Grzegorczyk, S. Pasieczna, "Manganese-lanthanum oxides modified with silver for the catalytic combustion of methane"
J. Catal. 227 (2004) 282-296.
Impact factor: 6.5, Times cited: 367

7. **G. Avgouropoulos**, T. Ioannides, H. Matralis, "Influence of the preparation method on the performance of CuO-CeO_2 catalysts for the selective oxidation of CO"
   Appl. Catal. B: Environ. 56 (2005) 87-93.
   Impact factor: 20.2, Times cited: 418
   Third most cited article among the research articles published in Appl. Catal. B in 2005.

8. **G. Avgouropoulos**, T. Ioannides, "CO tolerance of Pt and Rh catalysts: effect of CO in the gas phase oxidation of H_2 over Pt and Rh supported catalysts"
   Appl. Catal. B: Environ. 56 (2005) 77-86.
   Impact factor: 20.2, Times cited: 39

9. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Steam reforming of methanol over copper-manganese spinel oxide catalysts"
   Catal. Commun. 6 (2005) 497-501.
   Impact factor: 3.7, Times cited: 106
   Featured on the ScienceDirect TOP25 Hottest Articles (2005) within Catal. Commun.

10. **G. Avgouropoulos***, E. Oikonomopoulos, D. Kanistras, T. Ioannides, "Complete oxidation of ethanol over alkali-promoted Pt/Al_2O_3 catalysts"
    Appl. Catal. B: Environ., 65 (2006) 62-69.
    Impact factor: 20.2, Times cited: 114

11. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "In-situ combustion synthesis of structured Cu-Ce-O and Cu-Mn-O catalysts for the production and purification of hydrogen"
    Appl. Catal. B: Environ. 66 (2006) 168-174.
    Impact factor: 20.2, Times cited: 106
    Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Appl. Catal. B.

12. **G. Avgouropoulos**, T. Ioannides, "Effect of synthesis parameters on catalytic properties of CuO-CeO_2"
    Appl. Catal. B: Environ. 67 (2006) 1-11.
    Impact factor: 20.2, Times cited: 260
    Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Appl. Catal. B.

13. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Effect of dopants on the performance of $CuO\text{-}CeO_2$ catalysts in methanol steam reforming"
Appl. Catal. B: Environ. 69 (2007) 226-234.
Impact factor: 20.2, Times cited: 110

14. **G. Avgouropoulos***, J. Papavasiliou, V. Idakiev, T. Tabakova, T. Ioannides, "A comparative study of ceria-supported gold and copper oxide catalysts for preferential CO oxidation reaction"
Chem. Eng. J. 124 (2006) 41-45.
Impact factor: 13.3, Times cited: 103
Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Chem. Eng. J.

15. T. Tabakova, V. Idakiev, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Effect of additives on the WGS activity of combustion synthesized CuO/CeO_2 catalysts"
Catal. Commun. 8 (2007) 101-106.
Impact factor: 3.7, Times cited: 91

16. M. Konsolakis, M. Vrontaki, **G. Avgouropoulos**, T. Ioannides, I.V. Yentekakis, "Novel doubly-promoted catalysts for the lean NO_x reduction by H_2 + CO: $Pd(K)/Al_2O_3\text{-}(TiO_2)$"
Appl. Catal. B: Environ. 68 (2006) 59-67.
Impact factor: 20.2, Times cited: 26

17. P. Panagiotopoulou, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, D.I. Kondarides, "Water-gas shift activity of doped Pt/CeO_2 catalysts"
Chem. Eng. J. 134 (2007) 16-22.
Impact factor: 13.3, Times cited: 148
Featured on the ScienceDirect TOP25 Hottest Articles (2007) within Chem. Eng. J.

18. **G. Avgouropoulos**, T. Ioannides, "Adsorption and reaction of CO on $CuO\text{-}CeO_2$ catalysts prepared by the combustion method"
Catal. Lett. 116 (2007) 15-22.
Impact factor: 2.3, Times cited: 34

19. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Combined steam reforming of methanol over Cu-Mn spinel oxide catalysts"

J. Catal. 251 (2007) 7-20.
Impact factor: 6.5, Times cited: 200

20. **G. Avgouropoulos***, J. Papavasiliou, T. Ioannides, "PROX reaction over CuO-CeO_2 catalyst with reformate gas containing methanol"
Catal. Commun. 9 (2008) 1656-1660.
Impact factor: 3.7, Times cited: 25

21. **G. Avgouropoulos***, M. Manzoli, F. Boccuzzi, T. Tabakova, J. Papavasiliou, T. Ioannides, V. Idakiev, "Catalytic performance and characterization of Au/doped ceria catalysts for the preferential CO oxidation reaction"
J. Catal. 256 (2008) 237-247.
Impact factor: 6.5, Times cited: 148
Featured on the ScienceDirect TOP25 Hottest Articles (2008) within J. Catal.

22. T. Tabakova, V. Idakiev, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Impact of the preparation method on the water-gas shift activity of CuO/doped-ceria catalysts"
Bulg. Chem. Commun. 40 (2008) 42-47.
Impact factor: 0.640, Times cited: 1

23. M. Manzoli, **G. Avgouropoulos**, T. Tabakova, J. Papavasiliou, T. Ioannides, F. Boccuzzi, "Preferential CO oxidation reaction in H_2-rich gas mixtures over Au/doped ceria catalysts"
Catal. Today 138 (2008) 239-243.
Impact factor: 5.2, Times cited: 66
Featured on the ScienceDirect TOP25 Hottest Articles (2009) within Catal. Today.

24. **G. Avgouropoulos**, T. Ioannides, "TPD and TPSR study of CO interaction with CuO-CeO_2 catalysts"
J. Mol. Catal. A 296 (2008) 47-53.
Impact factor: 4.6, Times cited: 41

25. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Steady-state isotopic transient kinetic analysis of steam reforming of methanol over Cu-based catalysts"
Appl. Catal. B: Environ. 88 (2009) 490-496.
Impact factor: 20.2, Times cited: 65

26. **G. Avgouropoulos***, "Isotopic transient study of methanol decomposition over noble metal/ceria"
Catal. Commun. 10 (2009) 682-686.
Impact factor: 3.7, Times cited: 10

27. **G. Avgouropoulos***, J. Papavasiliou, T. Ioannides, "Hydrogen production from methanol over combustion-synthesized noble metal/ceria catalysts"
Chem. Eng. J. 154 (2009) 274-280.
Impact factor: 13.3, Times cited: 44

28. **G. Avgouropoulos***, J. Papavasiliou, M. Daletou, T. Ioannides, J. Kallitsis, S. Neophytides, "Reforming methanol to electricity in a high temperature PEM fuel cell"
Appl. Catal. B: Environ. 90 (2009) 628-632.
Impact factor: 20.2, Times cited: 54

29. T. Tabakova, **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, F. Boccuzzi, K. Tenchev, F. Vindigni, T. Ioannides, "CO-free hydrogen production over $Au/CeO_2–Fe_2O_3$ catalysts: Part 1. Impact of the support composition on the performance for the preferential CO oxidation reaction"
Appl. Catal. B: Environ. 101 (2011) 256-265.
Impact factor: 20.2, Times cited: 88

30. H. Nazar, D.G. Fatouros, S.M. van der Merwe, N. Bouropoulos, **G. Avgouropoulos**, J. Tsibouklis, M. Roldo, "Thermosensitive hydrogels for nasal drug delivery: The formulation and characterisation of systems based on N-trimethyl chitosan chloride"
Eur. J. Pharm. Biopharm. 77 (2011) 225-232.
Impact factor: 4.4, Times cited: 93

31. T. Skaltsas, **G. Avgouropoulos**, D. Tasis, "Impact of the fabrication method on the physicochemical properties of carbon nanotube-based aerogels"
Micropor. Mesopor. Mater. 143 (2011) 451-457.
Impact factor: 4.8, Times cited: 33

32. **G. Avgouropoulos**, T. Ioannides, "Kinetics of CO and H_2 oxidation over $CuO–CeO_2$ and CuO catalysts"
Chem. Eng. J. 176-177 (2011) 14-21.
Impact factor: 13.3, Times cited: 18

33. **G. Avgouropoulos***, T. Ioannides, J.K. Kallitsis, S. Neophytides, "Development of an internal reforming alcohol fuel cell: Concept, challenges and opportunities"
Chem. Eng. J. 176-177 (2011) 95-101.
Impact factor: 13.3, Times cited: 39

34. J. Papavasiliou, **G. Avgouropoulos***, T. Ioannides, "CuMnOx catalysts for internal reforming methanol fuel cells: Application aspects"
Int. J. Hydrogen Energy 37 (2012) 16739-16747.
Impact factor: 8.1, Times cited: 24

35. **G. Avgouropoulos***, S. Neophytides, "Performance of internal reforming methanol fuel cell under various methanol/water concentrations"
J. Appl. Electrochem. 42 (2012) 719-726.
Impact factor: 2.4, Times cited: 23

36. T. Tabakova, V. Idakiev, **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, F. Boccuzzi, T. Ioannides, "Highly active copper catalyst for low-temperature water-gas shift reaction prepared via a Cu-Mn spinel oxide precursor"
Appl. Catal. A: Gen. 451 (2013) 184-191.
Impact factor: 4.7, Times cited: 54

37. **G. Avgouropoulos***, A. Paxinou, S. Neophytides, "In situ hydrogen utilization in an internal reforming methanol fuel cell"
Int. J. Hydrogen Energy 39 (2014) 18103-18108.
Impact factor: 8.1, Times cited: 38

38. P. Stathi, Y. Deligiannakis, **G. Avgouropoulos**, M. Louloudi, "Efficient H_2 Production from Formic Acid by a Supported Iron Catalyst on Silica"
Appl. Catal. A: Gen. 498 (2015) 176-184.
Impact factor: 4.7, Times cited: 31

39. **G. Avgouropoulos***, J. Papavasiliou, T. Ioannides, S. Neophytides "Insights on the effective incorporation of a foam-based methanol reformer in a high temperature polymer electrolyte membrane fuel cell"
J. Power Sources 296 (2015) 335-343.
Impact factor: 8.1, Times cited: 23

40. **G. Avgouropoulos***, S. Schlicker, K.-P. Schelhaas, J. Papavasiliou, K. Papadimitriou, E. Theodorakopoulou, N. Gourdoupi, A. Machocki, T. Ioannides, J. Kallitsis, G. Kolb, S. Neophytides "Performance evaluation of a proof-of-concept 70 W internal reforming methanol fuel cell system"
J. Power Sources 307 (2016) 875-882.
Impact factor: 8.1, Times cited: 34

41. P. Angelopoulou, F. Paloukis, G. Słowik, G. Wójcik, **G. Avgouropoulos*** "Combustion-synthesized $Li_xMn_2O_4$-based spinel nanorods as cathode materials for lithium-ion batteries"
Chem. Eng. J. 311 (2017) 191-202.
Impact factor: 13.3, Times cited: 27

42. V. Tzitzios, X. Hu, K. Dimos, D. Gournis, V. Georgakilas, **G. Avgouropoulos**, M.S. Katsiotis, S.M. Alhassan, G. Hadjipanayis "Uniform growth of fct FePt nanoparticles on the surface of reduced-GO via a green facile approach. Ferromagnetic r-GO nanocomposites with high coercivity and surface area"
Carbon 121 (2017) 209-216.
Impact factor: 10.5, Times cited: 2

43. J. Papavasiliou, G. Słowik, **G. Avgouropoulos*** "Redox behaviour of a copper-based methanol reformer"
Energy Technol. 6 (2018) 1332-1341.
Impact factor: 3.6, Times cited: 11

44. J. Papavasiliou, M. Rawski, J. Vakros, **G. Avgouropoulos*** "A novel post-synthesis modification of CuO-CeO2 catalysts: effect on their activity for selective CO oxidation reaction"
ChemCatChem 10 (2018) 2016-2106.
Impact factor: 3.8, Times cited: 37

45. J. Papavasiliou, J. Vakros, **G. Avgouropoulos*** "Impact of acid treatment of CuO-CeO2 catalysts on the preferential oxidation of CO reaction"
Catal. Commun. 15 (2018) 68-72.
Impact factor: 3.7, Times cited: 19

46. E. Doukas, P. Balta, D. Raptis, **G. Avgouropoulos**, P. Lianos "A Realistic Approach for Photoelectrochemical Hydrogen Production"
    Materials 11 (2018) 1269.
    Impact factor: 3.1, Times cited: 13

47. I. Papagiannis, G. Koutsikou, Z. Frontistis, I. Konstantinou, **G. Avgouropoulos**, D. Mantzavinos, P. Lianos "Photoelectrocatalytic vs. Photocatalytic Degradation of Organic Water Born Pollutants"
    Catalysts 8 (2018) 455.
    Impact factor: 3.8, Times cited: 25

48. J. Papavasiliou, A. Paxinou, G. Słowik, S. Neophytides, **G. Avgouropoulos*** "Steam Reforming of Methanol over Nanostructured Pt/TiO_2 and Pt/CeO_2 Catalysts for Fuel Cell Applications"
    Catalysts 8 (2018) 544.
    Impact factor: 3.8, Times cited: 29

49. J. Papavasiliou, C. Schutt, G. Kolb, S. Neophytides **G. Avgouropoulos*** "Technological aspects of an auxiliary power unit with internal reforming methanol fuel cell"
    Int. J. Hydrogen Energy 44 (2019) 12818-12828.
    Impact factor: 8.1, Times cited: 14

50. K. Kappis, C. Papadopoulos, J. Papavasiliou, J. Vakros, Y. Georgiou, Y. Deligiannakis, **G. Avgouropoulos*** "Tuning the catalytic properties of copper-promoted nanoceria via a hydrothermal method"
    Catalysts 9 (2019) 138.
    Impact factor: 3.8, Times cited: 29

51. I. Papagiannis, E. Doukas, A. Kalarakis, **G. Avgouropoulos**, P. Lianos "Photoelectrocatalytic H_2 and H_2O_2 Production Using Visible-Light-Absorbing Photoanodes"
    Catalysts 9 (2019) 0.
    Impact factor: 3.8, Times cited: 15

52. W. Gac, W. Zawadzki, M. Greluk, G. Słowik, A. Machocki, J. Papavasiliou, **G. Avgouropoulos***, "Investigation of the Inhibiting Role of Hydrogen in the Steam Reforming of Methanol"

ChemCatChem 11 (2019) 3264-3278.
Impact factor: 3.8, Times cited: 10

53. C. Papadopoulos, K. Kappis, J. Papavasiliou, J. Vakros, M. Kuśmierz, W. Gac, Y. Georgiou, Y. Deligiannakis, **G. Avgouropoulos*** "Copper-promoted ceria catalysts for CO oxidation reaction"
Catal. Today 355 (2020) 647-653.
Impact factor: 5.2, Times cited: 24

54. P. Angelopoulou, **G. Avgouropoulos***, "Effect of electrode loading on the electrochemical performance of LiAl0.1Mn1.9O4 cathode for lithium-ion batteries"
Mater. Res. Bull. 119 (2019) 110562
Impact factor: 5.3, Times cited: 7

55. P. Katsoufis, V. Mylona, C. Politis, **G. Avgouropoulos**, P. Lianos, "Study of some basic operation conditions of an Al-air battery using technical grade commercial aluminum"
J. Power Sources 450 (2020) 227624
Impact factor: 8.1, Times cited: 47

56. K. Vrettos, P. Angelopoulou, J. Papavasiliou, **G. Avgouropoulos***, V. Georgakilas, "Sulfur-doped Graphene Aerogels reinforced with Carbon Fibers as Electrode Materials",
J. Mater. Sci. 55 (2020) 9676-9685
Impact factor: 3.5, Times cited: 9

57. P. Katsoufis, E. Doukas, C. Politis, **G. Avgouropoulos**, P. Lianos, "Enhanced rate of hydrogen production by corrosion of commercial aluminum"
Int. J. Hydrogen Energy 45 (2020) 10729-10734
Impact factor: 8.1, Times cited: 22

58. P. Angelopoulou, K. Vrettos, V. Georgakilas, **G. Avgouropoulos***, "Graphene Aerogel Modified Carbon Paper as Anode for Lithium-Ion Batteries",
Chem. Sel. 5 (2020) 1-7
Impact factor: 1.9, Times cited: 5

59. P. Katsoufis, M. Katsaiti, C. Mourelas, T.S. Andrade, V. Dracopoulos, C. Politis, G. Avgouropoulos*, P. Lianos, "Study of a thin film aluminum-air battery",

Energies 13 (2020) 1447
Impact factor: 3.0, Times cited: 30

60. M. Fitros, S.F. Tombros, S. Kokkalas, S.P. Kilias, M. Perraki, V. Skliros, X.C. Simos, K. Papaspyropoulos, **G. Avgouropoulos**, A.E. Williams-Jones, D. Zhai, K. Hatzipanagiotou, "REE-enriched skarns in collisional settings",
Lithos 370–371 (2020) 10563813
Impact factor: 2.9, Times cited: 7

61. O.S. Taskin, N. Yuca, J. Papavasiliou, **G. Avgouropoulos**, "Interconnected conductive gel binder for high capacity silicon anode for Li-ion batteries",
Mater. Lett. 273 (2020) 127918
Impact factor: 2.7, Times cited: 19

62. P. Angelopoulou, S. Kassavetis, J. Papavasiliou, D. Karfaridis, G. Slowik, P. Patsalas, **G. Avgouropoulos***, "Enhanced performance of $LiAl_{0.1}Mn_{1.9}O_4$ cathode for Li-ion battery via TiN coating",
Energies 14 (2021) 825
Impact factor: 3.0, Times cited: 6

63. Y. Xing, H. Li, **G. Avgouropoulos***, "Research progress of proton exchange membrane failure and mitigation strategies",
Materials 14 (2021) 2591
Impact factor: 3.1, Times cited: 56

64. K. Kappis, J. Papavasiliou, **G. Avgouropoulos***, "Methanol reforming processes for fuel cell applications",
Energies 14 (2021) 8442
Impact factor: 3.0, Times cited: 29

65. C. Papadopoulos, K. Kappis, J. Papavasiliou, J. Vakros, A. Antonelou, W. Gac, H. Li, **G. Avgouropoulos***, "Impact of Hydrothermally Prepared Support on the Catalytic Properties of CuCe Oxide for Preferential CO Oxidation Reaction",
Catalysts 12 (2022) 674
Impact factor: 3.8, Times cited: 6

66. Y. Li, K. Kappis, J. Papavasiliou, Z. Fu, L. Chen, H. Li, D.E. Vlachos, **G. Avgouropoulos***, "Insights on the electrochemical performance of a molten proton conductor fuel cell with internal methanol reformer",
J. Power Sources 542 (2022) 231813
Impact factor: 8.1, Times cited: 8

67. K. Kappis, J. Papavasiliou, M. Kusmierz, G. Słowik, Y. Li, H. Li, W. Gac, **G. Avgouropoulos***, "Steam reforming of methanol over combustion synthesized CuZnOx-based catalysts for fuel cell applications",
Chem. Eng. J. 461 (2023) 142098
Impact factor: 13.3, Times cited: 8

68. O.S. Taskin, N. Yuca, J. Papavasiliou, G. Avgouropoulos, E. Karabayir, M.E. Cetintasoglu, E. Guney, I. Kalafat, B. Cetin, E. Guzel, O. Urper, K. Wang, "Ambidextrous polyanthracene/poly(ethylene glycol) copolymer for high capacity silicon anode in Li-ion batteries",
Journal of Polymer Research 30 (2023) 434
Impact factor: 2.6

69. L. Liu, H. Li, **G. Avgouropoulos***, "A review of porous polytetrafluoroethylene reinforced sulfonic acid-based proton exchange membranes for fuel cells",
Int. J. Hydrogen Energy 50 (2024) 501-527
Impact factor: 8.1, Times cited: 9

70. M. Mpiliou, K. Kappis, S. Tombros, **G. Avgouropoulos** et al. "Mining wastes as CO oxidation mesoporous catalysts from the Fe-skarns of Serifos Island, Cyclades, Greece",
Sustainable Chemistry for the Environment 5 (2024) 100067 (2023)

71. K. Kappis, Z. Fu, Y. Li, K. Papageorgiou, D.E. Vlachos, J. Papavasiliou, H. Li, **G. Avgouropoulos***, "Stability evaluation under cycling conditions of a fuel cell stack based on molten proton conductor electrolyte membranes and internal methanol reformers",
Int. J. Hydrogen Energy (in press; https://doi.org/10.1016/j.ijhydene.2025.04.148)

B. PRESENTATIONS/PUBLICATIONS IN INTERNATIONAL CONFERENCES

1. **G. Avgouropoulos**, C. Papadopoulou, T. Ioannides, J. Batista, S. Hocevar, H. Matralis, "A comparative study of Pt/γ–Al_2O_3, Au/α–Fe_2O_3 and CuO–CeO_2 catalysts for the selective oxidation of carbon monoxide in excess hydrogen"
   3rd European Workshop on Environmental Catalysis (ENVICAT 2001), Maiori, Italy, May 2-4, 2001.

2. N. Novak Tusar**,** **G. Avgouropoulos**, S. Neophytides, T. Ioannides, V. Kaucic, "Preparation and catalytic performance of metal-substituted, microporous aluminophosphate MeAPo-31 (Me=Co, Mn)"
   7th European Conference on Advanced Materials and Processes (EUROMAT 2001), Rimini, Italy, June 10-14, 2001.

3. A.Ristic, **G. Avgouropoulos**, T. Ioannides, V. Kaucic, "Investigation of catalytic activity of framework and extraframework cobalt and manganese in MeAPO-34 prepared from fluoride medium"
   13th International Zeolite Conference, Montpellier, July 8-13, 2001.

4. K. Jiratova, T. Ioannides, S. Cuba, **G. Avgouropoulos**, J. Kocianova, "Influence of acid-base properties of modified alumina on VOC combustion activity of Pt/Al_2O_3 catalyst"
   15th International Congress of Chemical and Process Engineering, CHISA 2002, August 25-29, 2002, Prague.

5. **G. Avgouropoulos**, Th. Ioannides, H. Matralis, "CuO-CeO_2 catalysts for the selective oxidation of CO: influence of the preparation method"
   EMCC-3, 3rd Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean, Thessaloniki, Greece, May 13-15, 2003.

6. **G. Avgouropoulos**, T. Ioannides, "CuO-CeO_2 catalysts prepared by citrate-hydrothermal method: characterization and kinetic studies in selective CO oxidation"
   EuropaCat-VI, Innsbruck, Austria, August 31- September 4, 2003.

7. **G. Avgouropoulos**, T. Ioannides, "Selective CO oxidation in excess H_2 over CuO-CeO_2 catalysts prepared by citrate and combustion methods"
   13th International Congress on Catalysis (13ICC), Paris, July 11-16, 2004.

8. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Production of hydrogen via methanol

reforming"
HELECO '05. 5th International Exhibition & Conference on Environmental Technology. Athens, Greece, February 3-6, 2005.

9. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Production of H_2 by steam reforming of methanol over promoted copper-cerium mixed oxide catalysts"
EuropaCat-VII, Sofia, Bulgaria, August 28 - September 1, 2005.

10. T. Tabakova, V. Idakiev, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Ceria-supported catalysts for water-gas shift and preferential CO oxidation reactions"
EuropaCat-VII, Sofia, Bulgaria, August 28 - September 1, 2005.

11. T. Tabakova, V. Idakiev, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Hydrogen production by water-gas shift reaction over nanostructured CuO/doped ceria catalysts"
7th Workshop "Nanoscience & Nanotechnology", 24-25 November 2005, Sofia, Bulgaria.

12. **G. Avgouropoulos**, J. Papavasiliou, Ch. Papadopoulou, T. Ioannides, H. Matralis, "Effect of gold loading on the physicochemical and catalytic properties of Au/α-Fe_2O_3 catalysts for the preferential CO oxidation reaction"
XVII International Conference on Chemical Reactors, 15-19 May 2006, Athens-Crete, Greece.

13. P. Panagiotopoulou, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, D.I. Kondarides, "Water-gas shift activity of doped Pt/CeO_2 catalysts"
XVII International Conference on Chemical Reactors, 15-19 May 2006, Athens-Crete, Greece.

14. **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, F. Boccuzzi, V. Idakiev, T. Tabakova, "Catalytic performance of Au/doped-ceria catalysts for the water-gas shift and preferential CO oxidation reactions"
Gold 2006, 3-6 September 2006, Limerick, Ireland.

15. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, "CuO-CeO_2 catalysts for methanol fuel processors"
4th EFCATS School on Catalysis, St. Petersburg, Russia, 20-24 September, 2006.

16. F. Vindigni, **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, T. Tabakova, V. Idakiev, M. Manzoli, F. Boccuzzi, "Purification of hydrogen by preferential CO oxidation over ceria-supported catalysts"
    Fuel Cells Science & Technology 2006, Turin, Italy, 13-14 September, 2006.

17. T. Tabakova, V. Idakiev, J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Impact of the support on the WGS activity of combustion synthesized CuO catalysts"
    ICOSECS 5, Ohrid, FYROM, 10-14 September, 2006.

18. **G. Avgouropoulos**, J. Papavasiliou, T. Tabakova, M. Manzoli, V. Idakiev, F. Boccuzzi, T. Ioannides, "High-purity hydrogen production over nanostructured Au/doped ceria catalysts"
    8th Workshop "Nanoscience & Nanotechnology", 20-22 November 2006, Sofia, Bulgaria.

19. **G. Avgouropoulos**, J. Papavasiliou, A. Siokou, T. Ioannides, "Redox properties of copper-manganese spinel oxide catalysts"
    EuropaCat-VIII, Turku, Finland, 26-31 August, 2007.

20. M. Manzoli, F. Vindigni, **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, V. Idakiev, T. Tabakova, "Au-doped ceria catalysts for the preferential CO oxidation in H_2-rich gas mixtures"
    EuropaCat-VIII, Turku, Finland, 26-31 August, 2007.

21. J. Papavasiliou, **G. Avgouropoulos**, J. Papavasiliou, A. Siokou, T. Ioannides, "Hydrogen production by methanol reforming over copper-manganese spinel oxide catalysts"
    EuropaCat-VIII, Turku, Finland, 26-31 August, 2007.

22. T. Tabakova, M. Manzoli, F. Boccuzzi, **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, V. Idakiev, "Selective CO oxidation over nanostructured Au/Zn-CeO_2 catalyst"
    9th Workshop "Nanoscience & Nanotechnology", 28-30 November 2007, Sofia, Bulgaria.

23. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, "Hydrogen production from methanol over combustion-synthesized noble metal/ceria catalysts*"*
    XVIII International Conference on Chemical Reactors, September 29 – October 3, 2008, Malta.

24. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Mechanistic aspects of steam reforming of methanol over copper-based catalysts*"*
XVIII International Conference on Chemical Reactors, September 29 – October 3, 2008, Malta.

25. F. Boccuzzi, T. Tabakova, **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, V. Idakiev, K. Tenchev, T. Ioannides, "H_2 production by PROX and WGS reactions over Au/CeO_2-Fe_2O_3 catalysts: effect of support composition"
Gold 2009, 26-29 July 2009, Heidelberg, Germany.

26. T. Tabakova, **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, F. Boccuzzi, V. Idakiev, K. Tenchev, T. Ioannides, "Impact of the support composition on the performance of Au/CeO_2-Fe_2O_3 catalysts in PROX and WGS reactions"
EuropaCat-IX, Salamanca, Spain, 30th August – 4th September, 2009.

27. T. Tabakova, V. Idakiev, **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, M. Manzoli, F. Boccuzzi, "Effect of the preparation method on low-temperature WGS activity of Cu-Mn spinel oxide catalysts"
EuropaCat-IX, Salamanca, Spain, 30th August – 4th September, 2009.

28. **G. Avgouropoulos**, T. Ioannides, "Kinetics of PROX reaction over CuO–CeO_2 and CuO catalysts"
XIX International Conference on Chemical Reactors, September 5-9, 2010, Vienna, Austria.

29. **G. Avgouropoulos**, "Development of an Internal Reforming Methanol Fuel Cell: Concept, Challenges and Opportunities"
XIX International Conference on Chemical Reactors, September 5-9, 2010, Vienna, Austria.

30. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides and S. Neophytides, "Performance of internal reforming methanol fuel cell under various methanol/water concentrations", 9th European Symposium on Electrochemical Engineering (9th ESEE), Chania, Greece, June 19-23, 2011.

31. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides and S. Neophytides, "The prospects of an internal reforming methanol fuel cell", 2011 International Conference on Hydrogen Production (ICH2P-11), Thessaloniki, Greece, June 19-22, 2011.

32. D. Tasis, C. Mavrokefalos, K.Papagelis, **G. Avgouropoulos**, "Hybrid carbon-based nanostructures for applications in catalysis", A European Conference/Workshop on the Synthesis, Characterization and Applications of Graphene (GrapHEL), Mykonos, Greece, September 27-30, 2012.

33. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, J. Kallitsis and S. Neophytides, "Internal reforming alcohol fuel cell", 7th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC7), Corfu, Greece, April 27th-May 1st, 2012.

34. **G. Avgouropoulos** and S. Neophytides, "In Situ Hydrogen Utilization in An Internal Reforming Methanol Fuel Cell", 2013 AIChE Annual Meeting, San Francisco, USA, November 3-8, 2013.

35. **G. Avgouropoulos**, A. Paxinou, S. Neophytides, "Electrochemical performance of a HT-PEM fuel cell with bi-functional electro/reforming anode", European Hydrogen Energy Conference 2014, (EHEC2014), Seville, Spain, March 12-14, 2014.

36. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Doped copper-manganese oxide catalysts for the production of hydrogen via steam reforming of methanol", European Hydrogen Energy Conference 2014, (EHEC2014), Seville, Spain, March 12-14, 2014.

37. **G. Avgouropoulos**, "Catalytic and technological aspects of reforming methanol to electricity inside a fuel cell", **Keynote Presentation**, 2014 AIChE Annual Meeting, Atalanta, USA, November 16-21, 2014.

38. J. Papavasiliou and **G. Avgouropoulos**, "Preferential oxidation of CO over Cu-Ce oxide nanostructures", 2014 AIChE Annual Meeting, Atalanta, USA, November 16-21, 2014.

39. A. Paxinou, J. Papavasiliou, S. Neophytides, **G. Avgouropoulos**, "Steam reforming of methanol over nanostructured Pt/TiO_2 and Pt/CeO_2 catalysts", 2014 AIChE Annual Meeting, Atalanta, USA, November 16-21, 2014.

40. **G. Avgouropoulos**, S. Schlicker, G. Kolb, S. Neophytides, "Design and Demonstration of an Internal Reforming Methanol Fuel Cell System for Portable Applications", 5th EUROPEAN PEFC AND H_2 FORUM 2015 (EFCF2015), Lucerne, Switzerland, June 30-July 3, 2015.

41. G. Kolb, S. Schlicker, **G. Avgouropoulos**, K.-P. Schelhaas, T. Ioannides, J. Kallitsis, S. Neophytides, "Design and operation of an auxiliary power unit with high temperature PEM fuel cell and internal methanol reforming", 10th European Congress of Chemical Engineering (ECCE2015), Nice, France, September 27- October 1, 2015.

42. **G. Avgouropoulos**, "Technological aspects of internal reforming methanol fuel cells for portable applications", **Invited**, EMN Dubai Meeting, Energy Materials Nanotechnology, Dubai, United Arab Emirates, April 1-4, 2016.

43. J. Papavasiliou, C. Kappis, **G. Avgouropoulos**, "Preferential oxidation of CO over Cu-Ce oxide nanostructures", 13th International Conference on Nanosciences &Nanotechnologies – NN16 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 5-8, 2016.

44. J. Papavasiliou, P. Angelopoulou, S. Neophytides, **G. Avgouropoulos**, "Recent advances of internal reforming methanol fuel cells for portable applications", 13th International Conference on Nanosciences &Nanotechnologies – NN16 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 5-8, 2016.

45. J. Papavasiliou, J. Vakros, **G. Avgouropoulos**, "Effect of synthesis parameters on the catalytic properties of CuO-CeO_2 catalysts", 13th International Conference on Nanosciences &Nanotechnologies – NN16 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 5-8, 2016.

46. P. Angelopoulou, F. Paloukis, **G. Avgouropoulos**, "Combustion-synthesized LiMn-based spinel nanostructures as cathode materials for lithium-ion batteries", 13th International Conference on Nanosciences &Nanotechnologies – NN16 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 5-8, 2016.

47. J. Papavasiliou, Y. Georgiou, E. Mouzourakis, **G. Avgouropoulos**, Y. Deligiannakis, "Au and Cu sub-nanoclusters dispersed on nanoceria for Preferential CO-Oxidation reaction",

14th International Conference on Nanosciences &Nanotechnologies – NN17 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7, 2017.

48. K. Kappis, J. Papavasiliou, **George Avgouropoulos**, "Tuning of nanoceria properties via a hydrothermal method" 14th International Conference on Nanosciences & Nanotechnologies – NN17 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7, 2017.

49. J. Papavasiliou, C. Schütt, G. Kolb, S. Neophytides, **G. Avgouropoulos**, "Technological aspects of an auxiliary power unit with internal reforming methanol fuel cell", European Hydrogen Energy Conference 2018 (EHEC2018). Costa del Sol, Spain, March 14-16, 2018.

50. C. Papadopoulos, K. Kappis, J. Papavasiliou, J. Vakros, Y. Georgiou, Y. Deligiannakis, A.G. Chronis, M.M. Sigalas, **G. Avgouropoulos**, "Atomically dispersed copper on ceria nanostructures for CO oxidation" 12th International Symposium of Heterogeneous Catalysis, Sofia, Bulgaria, August 26-29, 2018.

51. P. Angelopoulou, K. Vrettos, V. Georgakilas, **G. Avgouropoulos**, "Graphene aerogels as anode electrode for lithium-ion batteries", Advanced Nanomaterials 2019, ANM2019, Aveiro, Portugal, July 17-19, 2019.

52. K. Vrettos, P. Angelopoulou, **G. Avgouropoulos**, V. Georgakilas, "Synthesis of Sodium Sulfide - Reduced Graphene Oxide Aerogels enhanced with Surface Treated Carbon Fibers as Electrode Materials", Advanced Nanomaterials 2019, ANM2019, Aveiro, Portugal, July 17-19, 2019.

53. **G. Avgouropoulos**, M. Sigalas, S. Nikoletseas, E. Tatakis, D. Vanvitsiotis, A. Sougias, "Integrated PV Surveillance, Management and Revitalization System", Advanced Nanomaterials 2019, ANM2019, Aveiro, Portugal, July 17-19, 2019.

54. A. Chronis, J. Papavasiliou, **G. Avgouropoulos**, M. Sigalas, "A DFT investigation of atomically dispersed copper in ceria nanostructures", Advanced Nanomaterials 2019, ANM2019, Aveiro, Portugal, July 17-19, 2019.

55. K. Kappis, J. Papavasiliou, M. Kuśmierz, G. Słowik, W. Gac, **G. Avgouropoulos**, "Production of hydrogen over CuZnOx-based methanol reformers for fuel cell applications", European Hydrogen Energy Conference 2022 (EHEC2022). Madrid, Spain, May 18-20, 2022.

56. K. Kappis, Y. Li, H. Li, **G. Avgouropoulos**, "Integration of an intermediate-temperature fuel cell based on a $CsH_5(PO_4)_2$-doped polybenzimidazole membrane with a CuZn-based methanol reformer", European Hydrogen Energy Conference 2022 (EHEC2022). Madrid, Spain, May 18-20, 2022.

57. K. Kappis, J. Papavasiliou, **G. Avgouropoulos**, G. Słowik, M. Kuśmierz, W. Gac, "Effect of noble metal promoters on the performance of $CuZnGaAlO_x$-based catalysts for methanol steam reforming reaction", 15th Pannonian International Symposium on Catalysis (PISC2022), Jastrzębia Góra, Poland, September 4-8, 2022.

58. J. Papavasiliou, D. Katsoulotou, D. Roumelioti, M. Athanasiou, Th. Ioannides, **G. Avgouropoulos**, "Optimization of pyrolysis conditions on the physicochemical and electrochemical properties of reed straw derived hard carbon as anode electrode material for Sodium Ion Batteries" 20th International Conference on Nanosciences & Nanotechnologies – NN23 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7 2023.

59. S. Tombros, K. Papachristopoulou, **G. Avgouropoulos**, N. Vainos, "Tunable zinc oxide materials for photonic applications" 20th International Conference on Nanosciences & Nanotechnologies – NN23 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7 2023.

60. D. Batsouli, D. Hoxha, D. Vlachos, A. Vavouliotis, D. Katsoulotou, J. Papavasiliou, T. Ioannides, **G. Avgouropoulos**, "Development of sodium-ion pouch type batteries based on biochar anode materials" 20th International Conference on Nanosciences & Nanotechnologies – NN23 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7 2023.

61. C. Rista, J. Papavasiliou, S. Tombros, **G. Avgouropoulos**, V. Georgakilas, "GO-biochar hybrids as anode materials for sodium ion batteries" 20th International Conference on

Nanosciences & Nanotechnologies – NN23 Porto Palace Conference Centre & Hotel, Thessaloniki, Greece, July 4-7 2023.

62. S. Tombros, K. Papachristopoulou, **G. Avgouropoulos**, N. Vainos, "Tuning the physicochemical properties of ZnO via a hydrothermal method", Advanced Nanomaterials 2023, ANM2023, Aveiro, Portugal, July 25-28, 2023.

63. J. Papavasiliou, D. Katsoulotou, M. Athanasiou, Th. Ioannides, **G. Avgouropoulos**, "Reed Straw derived biochars as anode electrode materials in Sodium Ion Batteries", Advanced Nanomaterials 2023, ANM2023, Aveiro, Portugal, July 25-28, 2023.

64. K. Kappis, Y. Li, J. Papavasiliou, H. Li, D.E. Vlachos, **G. Avgouropoulos**, "Application aspects of molten proton conductor fuel cell modules with internal methanol reformer" 15th European Congress on Catalysis, EuropaCat2023, Prague, Czech Republic, August 27-September 1, 2023.

C. PRESENTATIONS/PUBLICATIONS IN NATIONAL CONFERENCES

1. **G. Avgouropoulos**, T. Ioannides, J. Batista, S. Hocevar, H. Matralis, "Copper catalysts for application in fuel processors", 6th Panhellenic Catalysis Symposium, Delphi, Greece, November 3-4, 2000.

2. **G. Avgouropoulos**, I. Fotopoulos, C. Papadopoulou, T. Ioannides, H. Matralis, "Selective CO oxidation over Au/α-Fe_2O_3 catalysts", 6th Panhellenic Catalysis Symposium, Delphi, Greece, November 3-4, 2000.

3. **G. Avgouropoulos**, T. Ioannides, "Inhibition of hydrogen oxidation during oxidation of H_2-CO mixtures over Pt and Rh catalysts: Effect of the support" 3rd Panhellenic Conference on Chemical Engineering, Athens, Greece, May 31-June 2, 2001.

4. **G. Avgouropoulos**, T. Ioannides, "Selective CO oxidation in the presence of excess H_2 over CuO-CeO_2 synthesized with a combustion method" 7th Panhellenic Catalysis Symposium, Edessa, Greece, October 3-4, 2002.

5. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, C. Papadopoulou, H. Matralis, "Effect of metal loading on the physicochemical properties of Au/α-Fe_2O_3 catalysts for the selective oxidation of CO in the presence of excess H_2"
   4th Panhellenic Conference on Chemical Engineering, Patras, Greece, May 29-31, 2003.

6. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, "Application of CuO-CeO_2 catalysts in methanol processors for hydrogen production"
   1st National Conference of Hydrogen Technologies, Athens, Greece, September 30 – October 2, 2004.

7. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Production of hydrogen via combined steam reforming of methanol over CuO-CeO_2 catalysts"
   8th Panhellenic Catalysis Symposium, Agia Nappa, Cyprus, October 30 – November 1, 2004.

8. **G. Avgouropoulos**, T. Ioannides, "Selective CO oxidation in excess H_2 over CuO-CeO_2 catalysts prepared by citrate and combustion methods"
   8th Panhellenic Catalysis Symposium, Agia Nappa, Cyprus, October 30 – November 1, 2004.

9. E. Oikonomoloulos, D. Kanistras, **G. Avgouropoulos**, T. Ioannides, "Ethanol oxidation over Pt/Al_2O_3 catalysts modified with alkali"
   8th Panhellenic Catalysis Symposium, Agia Nappa, Cyprus, October 30 – November 1, 2004.

10. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Characterization and catalytic performance of promoted CuO-CeO_2 catalysts for the steam reforming of methanol",
    5th Panhellenic Conference on Chemical Engineering, Thessaloniki, Greece, May 26-28, 2005.

11. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Hydrogen production via combined steam reforming of methanol over Cu-Mn catalysts"
    2nd National Conference of Hydrogen Technologies, Thessaloniki, Greece, October 20-21, 2005.

12. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Development of Cu-Mn catalysts for methanol reformers"
    9th Panhellenic Catalysis Symposium, Leykada, Greece, 6-7 October, 2006.

13. **G. Avgouropoulos**, J. Papavasiliou, V. Idakiev, T. Tabakova, T. Ioannides, "Selective oxidation of CO in the presence of excess H_2 over doped Au/CeO_2 catalysts"
    9th Panhellenic Catalysis Symposium, Leykada, Greece, 6-7 October, 2006.

14. M. Konsolakis, M. Vrontaki, **G. Avgouropoulos**, T. Ioannides, I. Yentakakis, "Novel doubly-promoted catalysts for the lean NO_x reduction by H_2 + CO: $Pd(K)/Al_2O_3$- (TiO_2)"
    9th Panhellenic Catalysis Symposium, Leykada, Greece, 6-7 October, 2006.

15. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Redox properties of Cu-Mn catalysts for the production of hydrogen from methanol"
    6th Panhellenic Conference on Chemical Engineering, Athens, Greece, May 31-June 2, 2007.

16. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Development of a pilot plant for the production of hydrogen by methanol reforming for the production of energy in a fuel cell"
    3nd National Conference of Hydrogen Technologies, Patras, Greece, November 19-20, 2007.

17. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "A mechanistic study of steam reforming of methanol over copper catalysts"
    10th Panhellenic Catalysis Symposium, Metsovo, Greece, 3-4 October, 2008.

18. **G. Avgouropoulos**, J. Papavasiliou, M. Georgezi, J.K. Kallitsis, T. Ioannides, S. Neophytides, "Development of an innovative fuel cell with internal methanol reforming"
    7th Panhellenic Conference on Chemical Engineering, Patras, Greece, 3-5 June, 2009.

19. **G. Avgouropoulos**, J. Papavasiliou, T. Ioannides, "Hydrogen production from methanol over Me/CeO_2 (Me: Pt, Rh, Pd) catalysts"
    7th Panhellenic Conference on Chemical Engineering, Patras, Greece, 3-5 June, 2009.

20. **G. Avgouropoulos**, J. Papavasiliou, J.K. Kallitsis, T. Ioannides, S. Neophytides, "Technological challenges and opportunities of an innovative fuel cell with internal reforming of methanol"
    11th Panhellenic Catalysis Symposium, Athens, 22-23 October, 2010.

21. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "$CuMnO_x$ catalysts for HT-PEM fuel cells with internal reforming of methanol: Effect of phosphoric acid"
    11th Panhellenic Catalysis Symposium, Athens, 22-23 October, 2010.

22. J. Papavasiliou, **G. Avgouropoulos**, T. Ioannides, "Steam reforming of methanol over CuMn mixed oxide catalysts: effect of third metal addition"
    8th Panhellenic Conference on Chemical Engineering, Thessaloniki, Greece, May 26-28, 2011.

23. **G. Avgouropoulos**, S. Lampos, T. Skaltsas, D. Tasis, "Carbon nanotubes – based catalytic supports"
    8th Panhellenic Conference on Chemical Engineering, Thessaloniki, Greece, May 26-28, 2011.

24. C. Mavrokefalos, D. Tasis, **G. Avgouropoulos**, "Deposition of precious metals on carbon nanostructures: Catalytic applications"
    12th Panhellenic Catalysis Symposium, Chania, Greece, 25-27 October, 2012.

25. **G. Avgouropoulos**, K. Papadimitriou, J. Papavasiliou, T. Ioannides, J. Kallitsis, S. Neophytides, "Advanced materials for fuel cells with internal reforming of methanol"
    12th Panhellenic Catalysis Symposium, Chania, Greece, 25-27 October, 2012.

26. P.A. Kolozoff, S. Katsiaounis, **G. Avgouropoulos**, E. Topoglidis, "Adsorption and Electrochemical Behaviour of Cyt-c on Carbon Nanotubes/TiO_2 Nanocomposite Films Fabricated at Various Annealing Temperatures", 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete, Greece, 21-24 September, 2014.

27. P. Angelopoulou and **G. Avgouropoulos**, "Combustion synthesis of Li-Mn spinel nanostructures as cathode materials for lithium-ion batteries", 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete, Greece, 21-24 September, 2014.

28. A. Paxinou, J. Papavasiliou, **G. Avgouropoulos**, "Pt/TiO_2 and Pt/CeO_2 nanostructured materials for fuel cell applications", **Best Poster Award**, 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete, Greece, 21-24 September, 2014.

29. J. Papavasiliou and **G. Avgouropoulos**, "Effect of hydrothermal conditions on the physicochemical properties of Cu-Ce oxide nanostructures", 30th Panhellenic Conference on Solid-State Physics and Materials Science, Heraklion, Crete, Greece, 21-24 September, 2014.

30. A. Paxinou, J. Papavasiliou, S. Neophytides, **G. Avgouropoulos**, "Steam reforming of methanol over nanostructured Pt/TiO_2 and Pt/CeO_2 catalysts", 13th Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 16-18 October, 2014.

31. J. Papavasiliou and **G. Avgouropoulos**, "Selective oxidation of CO over oxide nanostructures of Cu-Ce", 13th Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 16-18 October, 2014.

32. J. Papavasiliou, J. Vakros, **G. Avgouropoulos**, "Effect of synthesis parameters on the catalytic properties of mixed oxides of copper-cerium", 13th Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 16-18 October, 2014.

33. A. Paxinou, J. Papavasiliou, F. Paloukis, **G. Avgouropoulos**, S. Neophytides, "Production and utilization of hydrogen in an internal reforming methanol fuel cell", 13th Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 16-18 October, 2014.

34. P. Angelopoulou, F. Paloukis, G. Gouzia, **G. Avgouropoulos**, "Study of Li-Mn spinel nanostructures for application in Li-ion batteries", 10th Panhellenic Conference on Chemical Engineering, Patras, Greece, 4-6 June, 2015.

35. P. Angelopoulou, F. Paloukis, G. Gouzia, **G. Avgouropoulos**, "Study of Li-Mn spinel nanostructures for application in Li-ion batteries", 10th Panhellenic Conference on Chemical Engineering, Patras, Greece, 4-6 June, 2015.

36. A. Paxinou, J. Papavasiliou, S. Neophytides, **G. Avgouropoulos**, "Development of nanostructured Pt/CeO_2 and Pt/TiO_2 catalysts for the production of hydrogen from methanol", 10th Panhellenic Conference on Chemical Engineering, Patras, Greece, 4-6 June, 2015.

37. J. Papavasiliou, W. Gac, A. Machocki, **G. Avgouropoulos**, "Kinetic studies of steam reforming of methanol over copper and palladium catalysts", 14th Panhellenic Catalysis Symposium, Patras, Greece, 13-15 October, 2016.

38. J. Papavasiliou, J. Vakros, **G. Avgouropoulos**, "Modification of physicochemical properties of CuO/CeO_2 via re-dispersion of active phase", 14th Panhellenic Catalysis Symposium, Patras, Greece, 13-15 October, 2016.

39. C. Papadopoulos, K. Kappis, J. Papavasiliou, J. Vakros, Y. Georgiou, Y. Deligiannakis, **G. Avgouropoulos**, "Promotion of the catalytic properties of nanoceria with atomically dispersed copper via a hydrothermal method", 15th Panhellenic Catalysis Symposium, Ioannina, Greece, October 18-20, 2018.

40. P. Angelopoulou, **G. Avgouropoulos**, "Effect of substrate and loading on the electrochemical behavior of $LiAl_{0.1}Mn_{1.9}O_4$ cathodic electrode", 12th Panhellenic Conference on Chemical Engineering, Athens, Greece, 29-31 May, 2019.

41. P. Angelopoulou, S. Kassavetis, P. Patsalas, **G. Avgouropoulos**, "Enhanced electrochemical performance of Li-ion battery via TiN coating of LiAl0.1Mn1.9O4 cathode electrode", 34th Panhellenic Conference on Solid-State Physics and Materials Science, Patras, Greece, 11-14 September, 2019.

42. **G. Avgouropoulos**, "Prospects of Electromobility via Hydrogen Technologies", **Invited**, Energy e-Forum 2020, Patras, Greece, July 13-17, 2020.

43. K. Kappis, J. Papavasiliou, **G. Avgouropoulos**, "«A study of the effect of hydrothermal synthesis parameters on the performance of $CuO\text{-}CeO_2$ catalysts for the production of hydrogen via steam reforming of methanol», 1st Interactive Conference of Young Scientists "Mineral Resources-Environment-Chemical Engineering", Kozani, Greece, February 26-28, 2021.

44. C. Papadopoulos, J. Vakros, **G. Avgouropoulos**, "Effect of synthesis parameters on the physicochemical properties and energy of Cu/CeO_2 catalysts for the selective CO oxidation reaction", 1st Interactive Conference of Young Scientists "Mineral Resources-Environment-Chemical Engineering", Kozani, Greece, February 26-28, 2021.

45. **G.Avgouropoulos**, "Electrification of Transportation Sector via Hydrogen Technologies", **Invited**, 1st Patras Green Transport Conference, Patras, Greece, November 5th, 2021.

46. M. Mpiliou, S. Tombros, K. Kappis, M. Fitros, **G. Avgouropoulos**, "Mineral magnetite (Fe_3O_4), hematite (Fe_2O_3) and musketofite (Fe_2O_3/Fe_3O_4) from Greek mining areas as potential CO oxidation catalysts", 13th Panhellenic Conference on Chemical Engineering, Patras, Greece, June 2-4, 2022.

47. K. Kappis, **G. Avgouropoulos**, "Steam reforming of methanol over copper zinc catalysts for application in fuel cells", 13th Panhellenic Conference on Chemical Engineering, Patras, Greece, June 2-4, 2022.

48. **J. Papavasiliou**, D. Katsoulotou, M. Athanasiou, T. Ioannides, G. Avgouropoulos, "Biochars from reed straws for sodium ion batteries", **Award in J. Papavasiliou for best oral presentation**, 13th Panhellenic Conference on Chemical Engineering, Patras, Greece, June 2-4, 2022.

49. **G. Avgouropoulos**, "The national strategy for hydrogen and the role of catalysis towards climate neutrality", **Keynote presentation**, 16th Panhellenic Catalysis Symposium, Chania, Greece, October 20-22, 2022.

50. K. Kappis, J. Papavasiliou, G. Słowik, M. Kuśmierz, W. Gac, **G. Avgouropoulos**, "Effect of noble metals addition on copper-zinc based catalysts for hydrogen production from methanol", 16th Panhellenic Catalysis Symposium, Chania, Greece, October 20-22, 2022.

51. **G. Avgouropoulos**, "The role of hydrogen technologies in the transport sector on the way to climate neutrality", **Invited**, 2nd Patras Green Transport Conference, Patras, Greece, November 18th, 2022.

52. K. Kappis, Z. Fu, Y. Li, K. Papageorgiou, D.E. Vlachos, J. Papavasiliou, H. Li, **G. Avgouropoulos**, "Molten proton conductor fuel cell modules with internal reforming of methanol", 17th Panhellenic Catalysis Symposium, Paphos, Cyprus, October 8-10, 2024.

D. PATENTS

1. S. Hočevar, J. Batista, H. Matralis, T. Ioannides, **G. Avgouropoulos**,
   "A Process for Catalytic, Selective Oxidation of Carbon Monoxide in the Mixtures of Gases Containing Excess Hydrogen, a Catalyst and a Process for its Preparation"
   WO 01/60738 A2 (Pub. Date: 23 August 2001)
   US 2004/0156770 A1 (Pub. Date: 12 August 2004)
   Filing date: 9 February 2001.

2. **G. Avgouropoulos**, J. Papavasiliou, M. Daletou, M. Georgezi, N. Triantafyllopoulos, T. Ioannides, J. Kallitsis, S. Neophytides,

"Internal Reforming Alcohol High Temperature PEM Fuel Cell"
United States Patent Application No: 61/095,779 (10 Sep. 2008)

E. BOOKS-CHAPTERS-SPECIAL ISSUES

1. **George Avgouropoulos** and Tatyana Tabakova, "Environmental Catalysis over Gold-based Materials", Royal Society of Chemistry, 2013.
2. **George Avgouropoulos**, "*Preferential oxidation of carbon monoxide over gold catalysts*" in "Environmental Catalysis over Gold-based Materials" edited by G. Avgouropoulos and T. Tabakova, Royal Society of Chemistry, 2013.
3. John Vakros and **George Avgouropoulos**, editorial in special issue "Tuning the Physicochemical Properties of Nanostructured Materials through Advanced Preparation Methods", Nanomaterials 2022, 12(6), 956.
4. "Tuning the Physicochemical Properties of Nanostructured Materials through Advanced Preparation Methods", edited by John Vakros and **George Avgouropoulos**, mdpi.com/books/pdfview/book/5592
5. "Nanomaterials for Fuel Cell Systems" edited by **George Avgouropoulos**, Alexandros Katsaounis and Rolando Pedicini, Participating journals: Catalysts, Energies, Materials, Nanomaterials, Polymers, 2023.

F. THESIS

1. **George Avgouropoulos**, "*In vitro calcification of bioprosthetic heart valves*", **Diploma Thesis, Department of Chemical Engineering, University of Patras**, Greece, 1997.

2. **George Avgouropoulos**, "Copper-based catalysts for fuel processors", **M.Sc. Thesis, Department of Chemical Engineering, University of Patras**, Greece, 2000.

3. **George Avgouropoulos**, "*Development of a catalytic process for the selective catalytic oxidation of CO in the presence of excess hydrogen*", **Ph.D. Thesis, Department of Chemical Engineering, University of Patras**, Greece, 2003.