Curriculum Vitae

IOANNIS V. YENTEKAKIS

- ✓ **Director, Institute of Geoenergy / Foundation for Research and Technology-Hellas (IG/FORTH), Crete, Greece.**

FORTH
FOUNDATION FOR RESEARCH AND TECHNOLOGY-HELLAS
INSTITUTE OF GEOENERGY

- ✓ **Professor of Physical Chemistry**

  (Heterogeneous Catalysis & Electrocatalysis; Sustainable Energy; Natural Gas, Biogas, CO_2, H_2 and Hydrocarbons processing technologies; Fuel Cells; Surface Science; Nanomaterials)

- ✓ **Member of the University Administrative Council, TUC**
- ✓ **Director of the Laboratory of Physical Chemistry & Chemical Processes**

TECHNICAL UNIVERSITY OF CRETE (TUC)

School of Chemical & Environmental Engineering

73100 Chania, Crete, Greece

CONTACT INFO:

Professor Dr. Ioannis V. Yentekakis,

Director Institute of GeoEnergy/Foundation for Research and Technology-Hellas (IG/FORTH)

Member of the University Administrative Council, Technical University of Crete

Director Physical Chemistry and Chemical Processes laboratory (www.pccplab.tuc.gr),

School of Chemical & Environmental Engineering

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URL: www.chenveng.tuc.gr/en/personnel/faculty/ioannis-v-yentekakis

Section Editor-in-Chief: ***Nanomaterials***
Specialty Chief-Editor: ***Frontiers in Environmental Chemistry***
Scopus
Google Scholar

PERSONAL:

NATIONALITY	:	Greek
Born	:	Crete, November 28, 1960.
Marital Status	:	Married with one child.

SUMMARY:

Professor Ioannis V. Yentekakis has born in 1960 in Crete, Greece. He graduated in 1983 from the Department of Chemical Engineering, **University of Patras**, where in 1983-1987 he elaborated his Ph.D. under the supervision of Professor C.G. Vayenas. In 1987-1888 he was employed as a postdoctoral fellow in the Department of Chemical Engineering at **Princeton University, NJ, USA**. In 1988 he returned to Greece, joined the ICE-HT/FORTH in Patras and the department of Chemical Engineering, University of Patras as a postdoctoral fellow and lecturer in both institutions. In 1995-2001 he served as Faculty Member (Lecturer and Assistant Professor) in the field of "Catalytic and Electrocatalytic Processes" in the department of Chemical Engineering, University of Patras. Then, in 2001 he was elected as Associate Professor in the Technical University of Crete (TUC) in the field of "Physical Chemistry" and in 2006 as Full Professor in the same field and University. In 2013 he moved to the School of Chemical & Environmental Engineering of TUC, where he has been working up to today. For many years (since 1991 to 2006), he has sustained very close collaboration (frequent visits as Visiting Professor) with Prof. R.M. Lambert in the department of Chemistry, **Cambridge University, UK**.

Prof. Yentekakis work is related with extended teaching (>110 under- and post-graduate semester courses of several titles/contents), administrative responsibilities, among them **Department Chairman, University Senate, and University Administrative Council regular member**, and research activities. His research activities lie mainly in the scientific areas of **Heterogeneous Catalysis and Electrocatalysis; Physical Chemistry of Surfaces and Interfaces; Chemical Kinetics; Nanomaterials Technology and Engineering; Reactors and Processes Engineering; Renewable Energy; Hydrocarbons Processing; Natural Gas, Biogas and Hydrogen Technologies, etc**. In particular, his research interests and objectives are to discover, elucidate, understand and exploit surface, catalytic, electrocatalytic and promotional phenomena over complex composites and nano-structured materials. It involves determination of the electronic structure of adsorbed and reacting surface species as a function of reaction variables, especially in relation to reactivity/selectivity and molecular mechanisms, heterogeneous catalysis, environmental protection, etc. Aspects addressed in his projects quite often have direct and immediate relevance to important technological applications. Current research includes investigation of surface-induced and support-mediated promotional effects and their synergy in heterogeneous catalysis/electrocatalysis; De-NOx and De-N_2O processes; natural gas, biogas and higher hydrocarbons reforming processes, emissions control systems, fuel cells. Surface and catalytic phenomena are

studied by advanced analytical, microscopic and spectroscopic methods such as high-resolution electron microscopy (HREM), in situ Defuse Reflectance Infrared Fourier Transform Spectroscopy (DRIFTS), X-ray photoelectron spectroscopy (XPS) X-ray diffraction (XRD), X-ray fluorescence (XRF), Physi-Chemi-sorption, Temperature-Programmed Desorption (TPD) and other techniques. In brief his research interests and activities can be entitled as:

- **Heterogeneous catalysts and Electrocatalysts design/synthesis, characterization, and evaluation.**
- **Fuel Cells science and technology.**
- **Promotion and its origin in heterogeneous catalysis and electrocatalysis.**
- **Hydrogen energy. Biofuels, natural gas and hydrocarbons processing, hydrocarbons reforming.**
- **CO_2 capture and utilization.**
- **Chemical and Processes Engineering.**
- **Nanomaterials and Nanotechnology for Environmental and Energy applications.**

His research work has been published in **126 papers in international peer-reviewed journals (mean IF/paper=8.75)**, which has been acknowledged with more than **7600 citations, h-index = 52** (Google scholar). Special articles in scientific journals have been written by others exclusively about this research. He has also published **5 Chapters in International Handbooks**, **16 peer-reviewed papers in International Scientific Series**, **170 papers in international and national conference proceedings**, **1 invited monograph** in international Journal, and **3 international patents**, while he has given **many invited talks** in conferences and institutions. He is **Specialty Chief-Editor** of the journal of ***Frontiers in Environmental Chemistry: Catalytic Remediation***, **Section Editor-in-Chief Editor of *Nanomaterials* (IF=5.719)** and Editorial Board Member in 8 additional international journals: **Molecules** (MDPI), **Catalysts** (MDPI), **Reactions** (MDPI), **Coatings** (MDPI), **Catalysis Research** (LiDSEN), etc. He is also a regular reviewer for more than 70 scientific Journals (>400 reviews) and for several research funding agencies (>300 proposals' reviews). He was member in the organizing and scientific committees and/or session chairman of numerous international and national scientific conferences. He has **supervised 4 Post-Doctoral and 9 Ph.D., >30 MSc. and >100 Diploma theses**. He developed **2 laboratories** (at the University of Patras and Technical University of Crete).

Prof. Yentekakis was a member of the team awarded in 1992 by the National Athens Academy of Science with the Medal and Prize of chemistry. He has participated as senior key-researcher, principal investigator, or program coordinator in over **39 research grants** (**24 as coordinator**) awarded by The European Union, The British Council, The Greek Ministry of Education and The Greek Ministry of Development-GSRT, etc. He develops and expands a valuable network of collaborators both in Greece and abroad, including worldwide appreciated academic and research institutions or companies.

Professor Yentekakis is/was **Guest Editor in 8 specific topics (Special Issues)** in international journals, namely "Advanced Utilization and management of Biogas" (*Frontiers in Environmental Science*), "Emissions Control Catalysis" (*Catalysts*, MDPI journal), "Noble Metal Catalysts" (*Catalysts*, MDPI journal), "Advances in heterocatalysis by nanomaterials" (Nanomaterials MDPI), "Nanomaterials in Catalytic Applications" (Catalysts MDPI), "Recent Advances in Environmental Nanoscience and nanotechnology" and "Nanocatalysis for Environmental Protection, Energy, and Green Chemistry". He has received "Certificate of Recognition" at the 6th International Conference on Environmental Chemistry and Engineering, Rome, Italy 2017, where he was invited to give a plenary lecture.

Professor Yentekakis had a key-inventor role in several new physicochemical phenomena, with high scientific and practical impact, as for example:

(i) The discovery of Non-Faradaic Electrochemical modification of Catalytic Activity" (NEMCA) or "Electrochemical Promotion" in Heterogeneous Catalysis [C.G. Vayenas, S. Bebelis, I.V. Yentekakis and H-G. Lintz, Catal. Today, 111, 303-445 (1992)],

(ii) The development of a direct catalytic process for the conversion of methane to ethylene with >85% yield [Y. Jiang, I.V. Yentekakis and C.G. Vayenas, Science, 264, 1563-1566 (1994); "Chemical Engineers near Holy Grail", Chem. & Ind., 12 p.444 (1994)],

(iii) The development of several novel fuel cells, such as: the direct H_2S-fuel cell; the direct biogas fuel cell (internal dry reforming of methane); the direct coal gasification fuel cell [e.g., "Applied Highlights: a selection of the topics from the chemical literature", Chem. & Ind., 17, 571-572 (1989); "A new process for direct coal gasification", Platinum Metals Review, 34, p. 35 (1990)],

(iv) The development of simple (monometallic), economic and extremely active and selective automotive exhaust catalytic converters [e.g., V. Matsouka, M. Konsolakis, R.M. Lambert, I.V. Yentekakis, Appl. Catal. B 84, 715-722 (2008)], etc.

(v) Catalyst nano-particles stabilization against thermal sintering [I. V. Yentekakis, G. Goula, P. Panagiotopoulou, S.A Kampouri, M.J. Taylor, G. Kyriakou, R. M. Lambert, *Applied Catalysis B: Environmental,* 192 (2016) 357-364; Yentekakis et al., Catalysis Letters, 148 (2018) 341-347].

UNIVERSITY EDUCATION:

1978-1983: B.S. Diploma in Chemical Engineering, University of Patras, Greece, and Chemical Engineering license since 1983

1983-1987: Ph.D. in Chemical Engineering (catalysis-electrocatalysis), University of Patras and FORTH/ICE-HT. (*Title: "Heterogeneous Catalytic Phenomena in Trickle Bed Reactors and in High Temperature Solid Oxide Fuel cells", under the supervising of Prof. C.G. Vayenas).*

1987-1988: Postdoctoral Fellow, Dept of Chemical Engineering **Princeton University,** NJ, USA

1988-1991 Postdoctoral fellow senior researcher, Dept of Chemical Engineering, University of Patras, and FORTH/ICE-HT.

ACADEMIC EXPERIENCE AND SCIENTIFIC CAREER:

- **1991-2001:** Academic career in **University of Patras (UP)** and **FORTH/ICE-HT** as follows**:**
  - 1991-1995: **Temporary Faculty Member**, Dept. Chemical Engineering, Univ. of Patras.
  - 1995-2000: **Lecturer**, Dept. Chemical Engineering, University of Patras.
  - 2000-2001: **Assistant Professor**, Dept. Chemical Engineering, University of Patras.
  - 1991-2001: Collaborating Faculty Member, FORTH/ICE-HT, Patras.
- **2001-Today:** Academic career in **Technical University of Crete (TUC)** as follows:
  - 2001-2006: **Associate Professor** in Physical Chemistry, Department of Sciences, TUC.
  - 2001-Today: **Director** of the "Physical Chemistry and Chemical Processes" laboratory.
  - 2006-Today: **Full Professor** in Physical Chemistry, **Department of Sciences (2006-2013)**, and **School of Chemical & Environmental Engineering (2013-today)**, Technical University of Crete.
- **Academic experiences in foreign Universities**
  - 1991-2006: **Cambridge University UK, Department of Chemistry:** Close collaboration with Professor R.M. Lambert (numerous research visits as Visiting Professor)
- **Current Status:**
  - ✓ **Professor and Member of the University Administrative Council,** School of Chemical & Environmental Engineering, Technical University of Crete (TUC). **Director** of the **laboratory of Physical Chemistry & Chemical Processes** [URL: www.pccplab.tuc.gr].
  - ✓ **Director of the Institute of GeoEnergy/Foundation for Research and Technology-Hellas (IG/FORTH)**

ADMINISTRATIVE EXPERIENCES AND COMMITTEES:

2024-today: **Director, Institute of GeoEnergy / FORTH**

2022-today: **Regular (elected) Member of the University Administrative Council,** TUC, Greece

2021-2022: **Member of the Scientific Committee of Institute of GeoEnergy/FORTH**

221-2022 **Vice-Dean, School of Chemical & Environmental Engineering,** Technical University of Crete.

2021-2022: **Alternate Member of the Senate,** Technical University of Crete, Greece

2019-2021: **Alternative Member of the Central University Committee for Economic and Research Development,** TUC, GR.

2017-today: **Member of the Dean committee,** School of Chemical & Environmental Engineering, TUC, GR.

2013-2017: **Regular (elected) Member of the University Administrative Council,** TUC, GR.

2009-2013: **Head of the Internal Evaluation Committee** of the Dept of Sciences, TUC, GR.

2007-2009: **Chairman,** Dept of Sciences, Technical University of Crete, GR

2007-2009: **Regular Member of the Senate,** Technical University of Crete, GR

2003-2007: **Vice-Chair of the Department of Sciences,** TUC, GR.

2003-2007: **Alternate Member of the Senate,** Technical University of Crete, GR.

2002-2003: **Regular Member of the Senate,** Technical University of Crete, GR

2001-2002: **Alternate Member of the Senate,** Technical University of Crete, GR

2000-2013: **Member of the Committee of Graduate Program of Studies of the Dept of Sciences,** TUC, GR

2001-2007: **Member of the Committee of the Interdepartmental Graduate Program of** Studies between the dept. of Sciences and dept. of Environmental Engineering.

2001-today: **Director and Founder of the laboratory of "Physical Chemistry & Chemical Processes" (www.pccplab.tuc.gr),** Technical University of Crete.

2001-today: **Member or chairman of committees** for evaluating national and international competitions of the Technical University of Crete.

1999-2000: **Member of a special committee** for the improvement of the Chemical Engineering curriculum of the University of Patras.

1998-2000: **President of the "Sports & Cultural Events Committee",** Dept. of Chemical Engineering, University of Patras

2000: **Member of the Committee** for the investigation of the employment of Chemical Engineers in Greece, and the formation of study programs in harmony with the industrial tissue of the Country.

2006-2008: **Member of the Board of Directors** of the Orthodox Academy of Crete.

2012: **Organizer and President** of the 12th panhellenic Symposium of Catalysis, 25-27 October, Chania.

2022: **Organizer and President** of the 16th panhellenic Symposium of Catalysis, 20-22 October, Chania.

1996-today: **Electoral body member for more than 100 University faculty member elections.**

TEACHING EXPERIENCE:

Extensive experience of lecturing and examining in physical chemistry, environmental and chemical engineering: Teaching of more than 100 semester courses at every level with the following courses' titles:

(i) Undergraduate

-Heterogeneous Catalysis

-Heterogeneous Reactor Engineering

-Chemical Kinetics and Reactor Engineering

-Introduction to Chemical Engineering

-Unit Operations & Heat Transfer

-Chemical and Energy Technologies

-Air pollution control

-Physical Chemistry

-Thermodynamics

- Energy and Fuels

- Gas Emissions Control Technologies

- Introduction to Chemical & Environmental Engineering

(ii) Postgraduate

- Special Aspects in Catalysis.
- Analysis and Design of Heterogeneous Reactors.
- Air Pollution Control.
- Physical and chemical operations-Analysis and Design.
- Modern aspects in chemical and energy technologies.
- Surface Science and Heterogeneous Catalysis.
- Mathematical modeling and Design of Physical and Chemical Operations.
- Advanced catalytic and electrocatalytic energy processes.
- Catalytic, electrocatalytic and electrochemical promotion.
- Biorefineries- valorization of waste.
- Energy production Technologies
- Catalysis (specific topics)
- Supervision of numerous PhD (8) and MSc (>25) and Diploma work (>70) Theses.

AREAS of RESEARCH ACTIVITIES and EXPERTICE AND ANALYTICAL TECHNIQUE SKILLS:

Prof. Yentekakis research activities involve mainly the following scientific areas:

- ***Heterogeneous Catalysis*** and the role of surface and structural promoters. Synthesis and characterization of novel nano-structured catalyst formulations and composites with specific performance in environmental and energy applications.
- ***Physical Chemistry of Surfaces and Interfaces***. Surface characteristics and chemistry evaluation by means of advanced microscopic and spectroscopic techniques (e.g., SEM, TEM, DRIFTS, XPS, XRD, etc).
- ***Electrochemical Promotion of Catalysis (EPOC)***; Non-Faradaic Electrochemical Modification of Catalytic Activity (NEMCA).
- ***Environmental Catalysis and Pollution Control***: Catalytic Emissions Control of pollutants (CO, NOx, N_2O, HCs, VOCs) from automotive and stationary sources; Catalytic Converters; Environmental Engineering
- ***Electrocatalysis, Electrochemistry***, ***Fuel Cells Science and Technology***: Analysis and design of novel fuel cells and electrochemical reactors; Direct Biogas Fuel Cells; Fused metal anode-Direct carbon fuel cells; H_2S fuel cells; Chemical Cogeneration.
- ***Electrochemical promotion of Catalysis:*** *In situ controlling Catalytic activity/selectivity by external bias.*
- ***Chemical kinetics and thermodynamics***: Reactor and Chemical Processes Engineering.
- ***Natural gas, biogas and hydrocarbons processing, management and valorization***.
- ***CO_2 capture and utilization (recycling, fuels production).***
- ***Hydrogen Energy***: Hydrocarbons and biofuels reforming for H_2 and syngas production.
- ***Renewable Energy, Circular economy energy processes.***

Skills in Analytical Techniques:

- *Mass Spectrometry (MS)*
- *Gas Chromatography (GC)*
- *Physical adsorption and porosimetry / Brunauer-Emmett-Teller (BET) and Barrett-Joyner-Halenda methods*
- *Chemisorption methods (equilibrium and dynamic)*
- *Fourier-Transform Infrared Spectroscopy (FT-IR),*
- *In situ Diffuse Reflectance Infrared Fourier Transform Spectroscopy (in situ DRIFTS)*

- *X-ray Photoelectron Spectroscopy (XPS)*
- *X-Ray Fluorescence (XRF)*
- *X-Ray Diffraction (XRD)*
- *Raman Spectroscopy*
- *Scanning Electron Microscopy/Energy Dispersive X-ray Spectroscopy (SEM/EDS)*
- *High-Resolution Transmission and Scanning Electron Microscopy with Energy Dispersive X-ray Spectroscopy (HR-TEM-STEM/EDS)*
- *Temperature Programmed Desorption, Reduction or Oxidation (TPD, TPR, TPO)*
- *Solid Electrolyte Potentiometry (SEP)*

PhD, Master, and Diploma theses Supervising:

- **Supervisor of PhD theses: 9**
  -Dr. M. Konsolakis (done)
  -Dr. G. Goula (done)
  -Dr. T. Papadam (done)
  -Dr. V. Matsouka (done)
  -Mrs. G. Botzolaki (ongoing)
  -Mr. G. Artemakis (ongoing)
  -Ms A. Rontogianni (ongoing)
  -Ms E. Nikolaraki (ongoing)
  -Ms. A. Gouziou (ongoing)
- **Supervisor of MSc. theses: >30**
- **Supervisor of Engineering Diploma works: >100**
- **Member of the Advisory team of PhD theses: >15**
- **Member of the 7-member Doctoral Theses Examination Committee: >30**
- **Member of the 3-member Master theses Examination Committee: >50**

PUBLISHED WORK:

RESEARCH PAPERS:

a1) Research papers (peer-reviewed publications) in international journals: 126 (mean IF: 8.75)
a2) Invited Chapters in Handbooks published by Elsevier, Wiley-VCH, Springer-Nature and CRC: 5
a3) Research papers (peer-reviewed) in Scientific Series: 16
a4) Research papers in national technical journals: 2
b) Patents: 3
c) Invited monograph (review paper of our work) in Scientific Journals: 1
d) Refereed publications in conference proceedings: 170
h) Invited lectures in international conferences and academic or industrial institutions: >50

- **CITATION INDEX: >7600 citations (Google Scholar); >6000 citations (Scopus)**
- **Mean Impact Factor: 8.75; Max IF = 63.714 (publication in "*Science*")**
- **H-index: 52 (Google Scholar); 47 (Scopus)**
- **Scientific articles written by others exclusively about our research:**

1. *"Applied highlights: A selection of recent topics from the Chemical literature: Fuel cells for cogenerating electricity and SO_2", N.P. Freestone, Chemistry & Industry, 17, Sept. 4, 571-572 (1989).*
2. *"A New Process for Direct Coal Gasification", Platinum Metals Review, 34(1), 35 (1990).*
3. *"Chemical Engineers near 'holy grail'", Chemistry and Industry, 12, p444 (1994).*
4. *"One-step Process converts methane to ethylene in 85% yield", Chem & Eng News, June (1994) p41.*
5. *"Recycling reactions", P. Szuromi, Science, 264, 1513 (1994).*

Summary of peer-reviewed Journal Publications		
Journal	**Number of Papers**	**Impact Factor (IF)**
Science	1	63.714
Applied Catalysis B: Environmental	19	24.319
Chemical Engineering Journal	3	16.774
Journal of Hazardous Materials	1	14.224
Journal of Power Sources	1	9.794
Journal of CO2 Utilization	1	8.321
Journal of Catalysis	14	8.047
Journal of Environmental Chemical Engineering	5	7.968
Electrochimica Acta	1	7.336
International Journal of Hydrogen Energy	6	7.139
Catalysis Today	3	6.562
Applied Catalysis A: General	1	5.723
Nanomaterials	9	5.719
Frontiers in Environmental Science	3	5.411
Molecular Catalysis	1	5.089
Chemical Engineering Science	1	4.889
Catalysts	6	4.501
Platinum Metals Review (now: Johnson Matthey Technology Review)	1	4.400
Journal of the Electrochemical Society	1	4.386
Industrial & Engineering Chemistry Research	2	4.326
Molecules, MDPI	1	4.200
ACS Omega	2	4.132
Physical Chemistry Chemical Physics	1	3.945
Materials	1	3.748
Solid State Ionics	6	3.699
Journal of Physical Chemistry B	1	3.466
Sustainability, MDPI	1	3.300
Energies, MDPI	1	3.000
Applied Physics A	1	2.983
Ionics	8	2.961
Journal of Physical Chemistry A	1	2.944
Catalysis Letters	2	2.936
Topics in Catalysis	8	2.781
Chemical Engineering & Technology	1	2.215
Materials Today: Proceedings	1	1.800
Nonlinear Analysis: Theory, Methods & Appl.	1	1.743
Kinetics and Catalysis	1	1.199
Global NEST Journal	1	1.134
Materials Science Forum	1	0.461(JCR-2002)
ISSI Letters	1	0.625 (2000)
Chemistry Proceedings	2	New
Frontiers in Environmental Chemistry	1	New
Advanced Materials Proc.	1	New
Total Number of papers in peer-reviewed Journals	**126**	**Mean IF = 8.75**

Chapters in Books and Peer-Reviewed papers in Scientific Series		
CRC Handbook (Book Chapter)	2	-
Modern Aspects in Electrochemistry 61 (Book Chapter)	1	-
Handbook of Heterogeneous Catalysis (Book Chapter)	1	-
Perovskites and Related Mixed Oxides(Chapter)	1	
Studies in Surface Science and Catalysis	7	1.600
ACS series & ACS division of Petroleum Chem. Inc Prepr.	3	0.677(JCR-2000)
The Electrochemical Society Proceedings.	5	-
Lecture Series in Computers & Computational Sciences	1	-
Total Number of Papers in Books and Scientific Series	**21**	

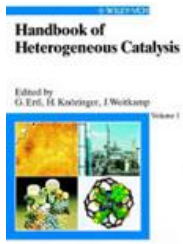
➢ BOOKS AND CHAPTERS IN BOOKS:

1. Monographs, Books and Chapter in Books: 14

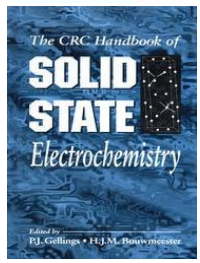
(i) Monographs: 1

- **"Non-Faradaic Electrochemical Modification of Catalytic Activity: A Status Report"**. C.G. Vayenas, S. Bebelis, **I.V. Yentekakis** and H.-G. Lintz. ***Μονογραφία***, ειδική έκδοση στο περιοδικό Catalysis Today. Elsevier, *Catal. Today, 11, 303-445 (1992).*

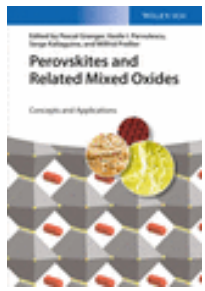
(ii) Chapters in International Books (Handbooks): 5



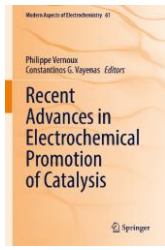
- **"Electrochemical Modification of Catalytic Activity",** C.G. Vayenas and **I.V. Yentekakis**, in "Handbook of Heterogeneous Catalysis"**,** *(G. Ertl, H. Knozinger and J. Witkamp Eds), VCH Publishers, Weinheim, Vol. 3, pp 1310-1325 (1997).*



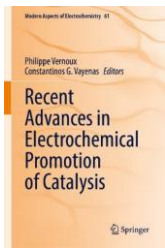
- **"Electrocatalysis and Electrochemical Reactors",** C.G. Vayenas, S. Bebelis, **I.V. Yentekakis** and S. Neophytides, "The CRC Handbook of Solid State Electrochemistry" *(P.J. Gellings and H.J.M. Bouwmeester Eds), Chapter 13, pp 445-480 (1997*).



- **"Three-Way Catalysis", I.V. Yentekakis** and M. Konsolakis, in "Handbook of Perovskites and Related Mixed Oxides", Eds. P. Granger, V. Parvulescu, S. Kaliaguine, W. Prellier, Wiley-VCH, N.Y., 2016.



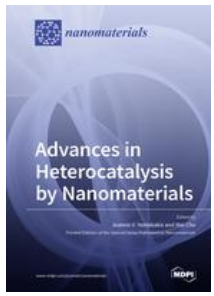
- **"EPOC with alkaline conductors-implementations in emissions control catalysis"**, **I.V. Yentekakis**, P. Vernoux, A. Caravaca, In: Vernoux, P., Vayenas, C.G. (eds) Recent Advances in Electrochemical Promotion of Catalysis. Modern Aspects of Electrochemistry, vol 61 (2023) Springer-Nature.



- **"The effective-double-layer as an efficient tool for the design of sinter-resistant catalysts"**, **I.V. Yentekakis**, In: Vernoux, P., Vayenas, C.G. (eds) Recent Advances in Electrochemical Promotion of Catalysis. Modern Aspects of Electrochemistry, vol 61 (2023), Springer-Nature.

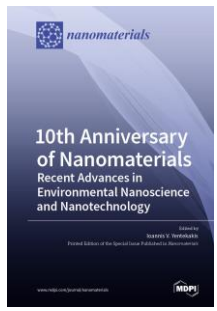
(iii) International Books of Special Issues (as Guest Editor): 3

- **"Advances in Heterocatalysis by Nanomaterials"**, Edited by **Ioannis V. Yentekakis** and Wei Chu, Printed Edition of the Special Issue Published in Nanomaterials, MDPI.



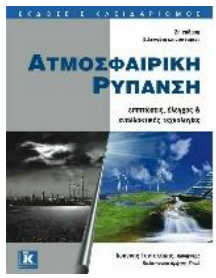
- **"Emissions Control Catalysis"**, Edited by **Ioannis V. Yentekakis** and Philippe Vernoux, Printed Edition of the Special Issue Published in Catalysts, MDPI.

- **"10th Anniversary of Nanomaterilas-Recent Advances in Environmental Nanoscience and Nanotechnology"**, Edited by **Ioannis V. Yentekakis**, Printed Edition of the Special Issue Published in Nanomaterials, MDPI,



(iv) Scientific and Technical Books in Greek: 5

- "**ΑΤΜΟΣΦΑΙΡΙΚΗ ΡΥΠΑΝΣΗ: Επιπτώσεις, Έλεγχος & Εναλλακτικές Τεχνολογίες**", **2η Βελτιωμένη Έκδοση** (782 σελίδες). **Ι. Γεντεκάκης**, *Εκδόσεις Κλειδάριθμος, Αθήνα, 2010.*



"**ΦΥΣΙΚΕΣ ΔΙΕΡΓΑΣΙΕΣ**: **Ανάλυση και Σχεδιασμός**", (464 σελίδες), **Ι. Γεντεκάκης**, *Εκδόσεις Κλειδάριθμος, Αθήνα, 2010.*

- "**ΑΤΜΟΣΦΑΙΡΙΚΗ ΡΥΠΑΝΣΗ: Επιπτώσεις, Έλεγχος & Εναλλακτικές Τεχνολογίες**", 1η Έκδοση (420 σελίδες), **Ι. Γεντεκάκης**, *Εκδόσεις Α. Τζιόλα Ο.Ε., Θεσσαλονίκη, 1999.*
- "**ΦΥΣΙΚΕΣ ΔΙΕΡΓΑΣΙΕΣ**", (200 σελίδες), **Ι. Γεντεκάκης**, *Εσωτερικές Εκδόσεις Πανεπιστημίου Πάτρας, 1994.*

- **"ΣΥΓΧΡΟΝΕΣ ΜΕΘΟΔΟΙ ΜΕΤΑΤΡΟΠΗΣ ΚΑΙ ΕΚΜΕΤΑΛΛΕΥΣΗΣ ΕΝΕΡΓΕΙΑΣ – ΚΕΛΙΑ ΚΑΥΣΙΜΟΥ"**, (60 σελίδες), **Ι. Γεντεκάκης**, *Εσωτερικές Εκδόσεις Πανεπιστημίου Πάτρας, 1998*

(v) Other University level technical books for internal distribution (in Greek): 5

- **"Environmentally Friendly Technologies for Natural Gas Management and Valorization** (90 Pages), **I.V. Yentekakis**. For the Graduate studies in «Environmental Geotechnology» School of Mineral Sources Engineering, Technical University of Crete, 1999.
- **"Analysis and Design of Chemical Reactors: Trickle-bed and Fluidized-bed Reactors"**, (20 pages), **I.V. Yentekakis**, For the Graduate studies in Chemical Engineering, Dept of Chemical Engineering, University of Patras, 1998.
- **"Physical Chemistry"** (220 Pages), **I.V. Yentekakis,** Available in eClass environment for the Physical Chemistry courses of the undergraduate studies in Technical University of Crete, 2001.
- **"Laboratory Experiments in Physical Chemistry"** (135 pages), **I.V. Yentekakis**, Available in eClass environment for the Laboratory exercises part of the Physical Chemistry courses of the undergraduate studies in Technical University of Crete, 2001
- **"Thermodynamics"** (170 pages), **Ι. Γεντεκάκης**, for the course of "Thermodynamics" in the undergraduate studies program of the school of Production Engineering and Management, Technical University of Crete, 2001.

2. International scientific patents: 3

P1. European Patent EP 0480116 B1 "Metal-Solid Electrolyte Catalysts", C.G. Vayenas, S. Bebelis, **I. V. Yentekakis** and P. Tsiakaras (1996/30). **(It was purchased by BASF)**

P2. P C T Patent Application, No: GR-0001-94, Jan28, 1994 "Method and Apparatus for forming Ethylene or Ethane and Ethylene from Methane", C.G. Vayenas, **I.V. Yentekakis** and Jiang Yi (1994).

P3. European Patent EP 0665047 B1 "New three-way catalysts with Pt, Rh and Pd, each supported on a separate support" X. Verykios, C.G. Vayenas, **I.V. Yentekakis**, E. Papadakis and C. Pliangos (1998/35).

EDITORSHIPS:

α/α	*Journal Title*	*Responsibilities*	*Publisher*
1	**Nanomaterials**	**Section Editor-in-Chief**	**MDPI**
2	**Frontiers in Environmental Chemistry**	**Specialty Chief-Editor**	**Frontiersin.org**
3	**Frontiers in Environmental Science**	**Associate Editor** (up to 2017-19)	**Frontiersin.org**
4	**Catalysts**	**Section Editor** (Environmental Catalysis)	**MDPI**
5	**Molecules**	**Section Editor** (Physical Chemistry)	**MDPI**
6	**Reactions**	**Editorial Board**	**MDPI**
7	**Coatings**	**Editorial Board**	**MDPI**
8	**Catalysis Research**	**Editorial Board** (up το 2025)	**LiDSEN**
9	**The Open Fuels & Energy Science Journal (Discontinued-2018)**	**Editorial Board**	**Bentham Open**
10	**The Open Conference Proceedings Journal (Discontinued-2020)**	**Editorial Board**	**Bentham Open**

GUEST EDITOR of journal's SPECIAL ISSUES:

α/α	*Journal*	*Role*	*Special Issue Title*
1	**Frontiers in Environmental Science**	**Guest Editor**	**Advanced Utilization and Management of Biogas**
2	**Catalysts**	**Guest Editor**	**Emissions Control Catalysis**
3	**Catalysts**	**Guest Editor**	**Noble Metal Catalysts**

4	Nanomaterials	Guest Editor	Advances in Heterocatalysis by Nanomaterials
5	Catalysts	Guest Editor	Nanomaterials in Catalysis Applications
6	Nanomaterials	Guest Editor	10th Anniversary of Nanomaterials: Recent Advances in Environmental nanoscience and Nanotechnology
7	Nanomaterials	Guest Editor	Nanocatalysis for Environmental Protection, Energy, and Green Chemistry
8	Nanomaterials	Guest Editor	Nanocatalysis for Environmental Protection, Energy, and Green Chemistry, Volume II

REVIEWER OF SCIENTIFIC/RESEARCH MANUSCRIPTS:

More than 380 reviews (last 10 years) in more than 65 international journal titles. For example:

- ✓ *Applied Catalysis B Environmental (59 evaluated manuscripts);*
- ✓ *Journal of Power Sources (57 evaluated manuscripts);*
- ✓ *International Journal Hydrogen Energy (28 evaluated manuscripts);*
- ✓ *Catalysts (18 evaluated manuscripts);*
- ✓ *Electrochimica Acta (13 evaluated manuscripts);*
- ✓ *Nanomaterials (11 evaluated manuscripts);*
- ✓ *Catalysis Communications (10 evaluated manuscripts);*
- ✓ *Materials (10 evaluated manuscripts);*
- ✓ *Journal of Catalysis (9 evaluated manuscripts);*
- ✓ *Applied Energy (4 evaluated manuscripts);*
- ✓ *Journal of CO2 Utilization (8 evaluated manuscripts);*
- ✓ *Chemical Engineering Journal (10 evaluated manuscripts);*
- ✓ *Energy Science and Engineering (2 evaluated manuscripts);*
- ✓ *Energy and Fuels (1 evaluated manuscript);*
- ✓ *Energy Conversion and Management (2 evaluated manuscripts);*
- ✓ *Fuel (7 evaluated manuscripts);*
- ✓ *Applied Catalysis A General (4 evaluated manuscripts);*
- ✓ *J. Oil Gas and Petrochemical Sciences (2 evaluated manuscripts);*
- ✓ *J. Electroch. Energy Conv. Storage (1 evaluated manuscript);*
- ✓ *ACS catalysis (3 evaluated manuscripts);*
- ✓ *ACS sustainable Chemistry and Engineering (1 evaluated manuscript);*
- ✓ *Journal of Environmental Chemical Engineering (2 evaluated manuscripts);*
- ✓ *Energies (2 evaluated manuscripts);*
- ✓ *Renewable and Sustainable Energy Reviews (2 evaluated manuscripts);*
- ✓ *etc*

REVIEWER (EVALUATOR) OF RESEARCH PROPOSALS:

More than 400 research proposal evaluations for the following calls:

"Research-Create-Innovate call for proposals" Cycle A' (GSRT) – as evaluating committee president; "PYTHAGORAS" (GSRT); "Greece–China Call for Proposals for Joint RT&D Projects" (GSRT); HERAKLITUS (GSRT); "SYNERGASIA" (GSRT); "THALIS" (GSRT); "Greece–Germany Call for Proposals for Joint RT&D Projects" (GSRT); "Greece–Israel Call for Proposals for Joint RT&D Projects" (GSRT) – as evaluating committee president; "Research-Create-Innovate call for proposals" Cycle B' (GSRT) – as evaluating committee president; "Research-Create-Innovate call for proposals" Cycle A'/Enterprises proposals (GSRT) – as evaluating committee president; Hellenic Foundation for Research & Innovation (H.F.R.I) call for Post-doctoral proposals"; Hellenic Foundation for Research & Innovation (H.F.R.I) call for Faculty members proposals"; Swiss National Science Foundation (SNSF) call for proposals; "India–Portugal Call for Proposals for Joint RT&D Projects" (Portugal); IRIS, RIF and PostDoc Cyprus call for proposals (Cyprus); MITACS

ELEVATE call for proposals (Canada); European Research Council (ERC) call for Proposals (Europe); CEPT-Clean Energy Transition Partnership (Europe)

MEMBER OF CONFERENCES' ORGANIZING and/or SCIENTIFIC COMMITTEES:

- 3rd Panhellenic Catalysis Symposium, Patras, GR., 1993
- 1st Panhellenic Symposium of Chemical Engineering, Patras, GR., 1997
- 2nd Panhellenic Symposium of Chemical Engineering, Thessaloniki, GR., 1999
- 9th EuroConference on Solid State Ionics-Transport Properties, Patras, GR., 2004
- 3rd Panhellenic Symposium of Chemical Engineering, Athens, GR., 2001.
- 55th Annual Meeting of the Inter. Society of Electrochemistry, Thessaloniki, GR., 2004
- 5th Panhellenic Symposium of Chemical Engineering, Thessaloniki, GR., 2005
- 2nd National Conference of Hydrogen Technologies, Thessaloniki, 2005
- 8th Panhellenic Catalysis Congress, Cyprus, GR., 2006
- 10th Panhellenic Catalysis Congress, Metsovo, GR., 2008
- 11th Panhellenic Catalysis Congress, Athens, GR., 2010
- International Conference of Hydrogen Production (ICHP-11), Thessaloniki, 2011
- **12th Panhellenic Catalysis Congress, October 2012, Chania, (Symposium President and Organizer of the symposium)**.
- 13th Panhellenic Catalysis Congress, Paleos Agios Athanasios Pellas, GR, 2014
- 14th Panhellenic Catalysis Symposium, Patras, GR., 2016
- 11th Panhellenic Symposium of Chemical Engineering, Thessaloniki, GR, 2017
- 6th International Conference on Environmental Chemistry & Engineering, July 24-25, 2017, Rome, Italy.
- Int. Conference on Renewable & Non Renewable energy Sources, November 9-11, 2017, Valencia, Spain.
- 15th Panhellenic Catalysis Symposium, Ioannina, GR, 2018
- 13th Panhellenic Scientific Congress of Chemical Engineering, Patras, GR, 2022
- **16th Panhellenic Catalysis Symposium, 20-22 October, 2022, Chania, (President and Organizer of the Symposium)**

AWARDS & HONORS:

- Crete Orthodox Academy Award	1978
- Athens Academy Award in the field of Chemistry	1992
- Hellenic Refinery of Aspropyrgos Fellowship	1983-1986
- ICE/HT-FORTH, Fellowship	1985-1987

COLLABORATIONS with Academics:

• Professor R.M. Lambert	Faculty of Chemistry, Cambridge University, UK
• Professor M. Amiridis	Chancellor, University of Illinois at Chicago, USA.
• Prof. K. Polychronopoulou	Faculty of Engineering, Khalifa University S&T, UAE.
• Dr. Kousi Kalliopi	University of Surrey, Guildford, United Kingdom
• Prof. Holgado, Juan Pedro	Universidad de Sevilla, Sevilla, Spain.
• Dr. Amin Osatiashtiani	Aston University, Birmingham, UK
• Dr. S. Kampouri	Institut des Sciences et Ingénierie Chimiques, Lausanne Switzerl.
• Dr. C.M.A. Parlett	The University of Manchester, Manchester, UK
• Prof. P.G. Debeneddeti	Faculty of Chemical Engineering, Princeton University, USA
• Prof. G. Kyriakou	Faculty of Chemical Engineering, University of Patras, GR.
• Associate Prof. P. Leone	Faculty of Engineering, Politecnico di Torino, Italy
• Professor X.E. Verykios	Faculty of Chemical Engineering, University of Patras, GR.

- Professor C.G. Vayenas Athens National Academy of Science, GR.
- Professor D. Kondarides Faculty of Chemical Engineering, University of Patras, GR.
- Professor D. Mantzavinos Faculty of Chemical Engineering, University of Patras, GR.
- Professor S. Bebelis Faculty of Chemical Engineering, University of Patras, GR.
- Professor D. Gournis Faculty of Material Science Engineering, University of Ioannina.
- Professor M. Karakassides Faculty of Material Science Engineering, University of Ioannina
- Dr. T. Ioannides Research Director A' of ICE/HT-FORTH, Patras, GR
- Dr. S. Neophytides Research Director A' of ICE/HT-FORTH, Patras, GR
- Professor M.A. Goula Faculty of Chemical Engineering, Univ Western Macedonia, GR.
- Assist. Prof. N. Charisiou Faculty of Chemical Engineering, Univ. Western Macedonia, GR.
- Professor N. Kalogerakis Faculty of Environmental Engineering, TUC, GR.
- Professor E. Diamadopoulos Faculty of Environmental Engineering, TUC, GR.
- Professor M. Stoukides Faculty of Chemical Engineering, Aristotle Univ of Thessaloniki, GR
- Prof. N. Kallithrakas-Kontos Faculty of Sciences, Technical University of Crete, GR
- Assoc. Prof. P. Panagiotopoulou Faculty of Environmental Engineering, TUC, GR
- Professor Binlin Dou University of Shanghai for Science and Technology, China
- Professor Wei Chu Faculty of Chemical Engineering, Sinchuan University, China
- Dr. Philippe Vernoux Institut de Recherches sur la Catalyse et l'Environnement de Lyon, FR.
- Dr. N. Boukos Research Director A' NCSR "Demokritos", Athens, GR
- Prof. D. Tsiplakides Faculty of Chemistry, AUTH, GR
- Dr. S. Balomenou Research Director A', CERTH, Thessaloniki, GR
- Dr. E. Illiopoulou Research Director A', CERTH, Thessaloniki, GR
- Assistant Prof. D. Niakolas Faculty of Chemistry, University of Ioannina, GR
- Assistant Prof. N. Charisiou Faculty of Chemical Engineering, Univ. Western Macedonia, GR
- Prof. P. Trikalitis Faculty of Chemistry, Univ. of Crete, GR
- Prof. G. Froudakis Faculty of Chemistry, Univ. of Crete, GR
- Prof. G. Kyzas Faculty of International Hellenic University, Thessaloniki, GR
- Prof. V. Zaspalis Faculty of Chemical Engineering, AUTH, GR
- Prof. D. Kolokotsa Faculty of Chemical & Environmental Engineering, TUC, GR
- Assoc. Prof. A. Giannis Faculty of Chemical & Environmental Engineering, TUC, GR
- Assist. Prof. N. Diangelakis Faculty of Chemical & Environmental Engineering, TUC, GR
- Assoc. Prof. A. Koutroulis Faculty of Chemical & Environmental Engineering, TUC, GR

COLLABORATIONS with INDUSTRY and ENTERPRISES:

INTERGEO Ltd.
HELBIO HELLAS S.A. (Hydrogen Energy Systems)
PyroGenesis S.A (advanced materials thermal spray solutions)
ELLINIKA PETRELEA AE
CITROEN HELLAS
ΕΚΕΠΥ Α.Ε. (today EBETAM A.E.)
Motor Oil Hellas
LPC Hellas
Watersafe SA
Tropical Green Technologies Ltd
HYDRO/MANAGEMENT

Funded RESEARCH PROJECTS: 39 (in 24 as Scientific Coordinator)

➢ As Coordinator:

1. **2023-2025,** Project title: *"GREENMAT: Advanced Nanostructured Materials for Sustainable Growth: Green Energy Production/Storage, Energy Saving and Environmental Remediation" (TAEDR-0535821)*, **Program**: "Flagship actions in interdisciplinary scientific fields with a special focus on the productive fabric" (ID 16618), Greece 2.0—National Recovery and Resilience Fund and funded by the European Union NextGenerationEU. **Funded by:** General Secretary of Research and Innovation (GSRI), Greek Ministry of Development. **TUC's Budget:** 600.000€ (total 2.456.404,80€). **TUC coordinator**
2. **2023–2025,** Project title: *"Innovative design of stable, efficient and in situ regenerable nanocatalysts for CO_2 recycling by CO_2 methanation and CO_2 reforming by methane processes"*, **Program:** Basic Research Financing Action (Horizontal support of all Sciences) Sub-action II. Funding Projects in Leading-Edge Sectors., **Funded by:** H.F.R.I (Hellenic Foundation for Research & Innovation), **TUC's Budget:** 220.000€ (total 400.000€). **Coordinator.**
3. **2020–2023**, Project title: *"Development and pilot scale demonstration of an innovative, effective and eco-friendly process for the production of clean hydrogen and electrical power generation from biogas (Eco-Bio-H2-FCs)"*, Program RESEARCH-CREATE-INNOVATE, **Funded by:** Ministry of Education, General Secretariat of Research and Technology, **TUC's Budget:** 208.000€ (total 1.000.000€). **Lead (coordinator) Partner.**
4. **2019-2022,** Project title: *"Development of new Catalysts for Efficient De-NO_X Abatement of Automobile Exhaust Purification (Acronym: CatEfDeNO$_X$)*, Greece–China Call for Proposals for Joint RT&D Projects, **Funded by:** General Secretariat of Research and Technology (GSRT), **TUC's Budget:** 160.000€ (total 424.520€). **Coordinator.**
5. **2022,** 16ο Panhellenic Symposium of Catalysis, Program: Organization of Conferences, Budget: 12.130,00 €. **Coordinator**
6. **2018 – 2021**, Project title: *"A novel process for the efficient and eco-friendly valorization of biogas and CO_2 emissions: Complete conversion to ethylene (Eco-Ethylene)"*, Program RESEARCH-CREATE-INNOVATE, **Funded by:** Ministry of Education, General Secretariat of Research and Technology, **TUC's Budget:** 275.000€ (total 1.000.000€). **Lead (coordinator) Partner**.
7. **2016-2017**, "Environmental management of CO_2: its conversion to added-value chemicals", Funded by Special Research Funds Account, Technical University of Crete, (12,000 €). **Coordinator.**
8. **2012-2014**, "Power valorization and treatment of enological wastewater", Funded by GSRT and EU, Program ESPA, (140,000 €). **Coordinator.**
9. **2011-2014,** "Advanced design and technology Fuel Cells for the direct use of biogas and other biomass-derived fuels", Program HERAKLEITOS II, Funded Ministry of Education. Budget 45000€ for PhD research. (Interrupted due to personal reasons of the PhD student). **Coordinator.**
10. **2011-2015**, "Development of novel doubly promoted (surface and structural) catalytic systems for the simultaneous emissions' abatement of NOx and N_2O", Funded by GSRT and EU, Program THALIS, Total Budget 598,000 € (164.000 € for TUC). **TUC Coordinator.**
11. **2012,** 12ο Panhellenic Symposium of Catalysis, Program: Organization of Conferences, Budget: 5.040,00 €
12. **2007-2009**, "Innovative fuel cells for direct energy production from biogas, Bio-alcohols and higher hydrocarbons", Funded by Special Research Funds Account, Technical University of Crete. Budget 10000 €. **Coordinator.**
13. **2007-2008**, "Hydrogen production from catalytic treatment of hydrocarbons and biofuels", Funded by Technical University of Crete, (5,000 €). **Coordinator.**

14. **2006-2008**, "Catalysis: A vital tool for upgrading the atmosphere and producing energy" Program: Human Networks E&T Training B' cycle. **Funded by:** Ministry of Education, General Secretariat of Research and Technology. TUC's Budget 16877,94 €. **TUC Coordinator**
15. **2006-2008**, "Development of novel bi-metallic anodic materials for hydrocarbons' solid oxide fuel cells", Program: Bilateral R&T Cooperation with non-European Countries, Funded by GSRT and EU, Program Non-EU-242, (65,000 €). TUC **Coordinator.**
16. **2006-2007:** "Production of desired configurations and geometries of intermediate temperature solid electrolytes", Funded by Special Research Funds Account, Technical University of Crete. Budget 5000€. **Coordinator**.
17. **2005-2009**, "A Novel process for direct production of electrical energy and hydrogen from urban and industry wastewater treatment", Funded by GSRT and EU, Program PENED, (114,000 €). **Coordinator.**
18. **2003-2004**, "Development of novel automotive catalytic converters for effective emissions control", Funded by Special Research Funds Account, Technical University of Crete. Budget 5000€. **Coordinator**.
19. **20032-2007**, "Kinetics, electrokinetics behavior and electrodic phenomena in novel fuel cells for environmentally important reactions", Funded by GSRT and EU, Program HERAKLEITOS, Budget 35,609,5 €. **Coordinator.**
20. **1999-2001**, "Promotion by alkalies in emission control catalysis", Funded by GSRT and British Council, Athens, Program: Greece-British Joint Research and Technology Programmes, Budget 18,000 €. **Coordinator.**
21. 2000-2003, "Fused Metal Anode Solid Oxide Fuel Cells for Simultaneous Coal Gasification and Production of Electrical Energy", Program Karatheodoris, Funded by Special Research Funds Account, University of Patras, Budget 10000 €. **Coordinator.**
22. **2000-2001,** "Promotion of environmentally important catalytic reactions and fused metal anode SOFCs", Program: Internal ICE-HT/FORTH programs, Funded by FORTH, Budget 3000€. **Coordinator.**
23. **1999-2000,** "Promotion of environmentally important catalytic reactions and fused metal anode SOFCs", Program: Internal ICE-HT/FORTH programs, Funded by FORTH, Budget 3000€. **Coordinator.**
24. **1998-1999,** "Promotion of environmentally important catalytic reactions", Program: Internal ICE-HT/FORTH programs, Funded by FORTH, Budget 3000€. **Coordinator.**

➢ As Main Researcher

25. **2018–2021**, Project title: *"Development and demonstration of an integrated process for the production of electrical energy through fuel cells under intermediate production of H2 from the steam reforming of LPG"*, Program RESEARCH-CREATE-INNOVATE, **Funded by:** Ministry of Education, General Secretariat of Research and Technology, **TUC's Budget:** 150.000€ (total 674.855€). **coordinated by Associate Professor P. Panagiotopoulou.**
26. **2005-2008**, "Development of novel very effective and selective and easily recycling catalytic converter for automotive emissions control", Funded by GSRT and EU, Program PENED, (114,000 €). **Proposal Writing by I.V. Yentekakis; Coordinated by lecturer M. Konlolakis**
27. **2003-2005,** "Study on the use of Greek lignites as adsorbent materials for the retention of gaseous pollutants", Program: EPAN/IGME, Funded by 3rd European Community Support Framework. **Coordinated by Prof. Nikos Passadakis**.
28. **1994-1996**, "Optimization, quality control and production of automotive catalytic converter and soot trap". Program EPET II, founded by GSRT, **Coordinated by Prof. X. Verykios**.
29. **1993-1996**, "Fundamental Studies in Non-Faradaic Catalysis", Program: Greece-British Joint Research and Technology Programmes, Budget 100,000 €, **Coordinated by Prof. C.G. Vayenas.**

30. **1992-93,** "Operational Tests of SOFC Modules and Use of SOFC as Chemical Reactors", Funded by EU, JOULE Programme, Budget 65,000 €, **Coordinated by Prof. C.G. Vayenas**
31. **1994-1995**, "New SOFCs materials and Technology", CEC JOULE Programme, Funded by European Economic Community, **Coordinated by Prof. C.G. Vayenas**
32. **1992-1995,** "Development of improved catalytic converters", STRIDE-Hellas Programme, Founded by European Economic Community, Coordinated by Prof. C.G. Vayenas
33. **1991-1994**, "Use of SOFC as Chemical Reactor: Non-Faradaic Electrochemical Modification of Catalytic Activity and Selectivity of Partial Oxidation and CO Hydrogenation Catalysts", Non-nuclear Energy Programme, founded by European Economic Community, coordinated by Prof. C.G. Vayenas.
34. **1990-1992**, "Operational Tests of SOFC Modules and Use of SOFC as Chemical Reactors", Funded by EU, JOULE Programme, **Coordinated by Prof. C.G. Vayenas**
35. **1990-1993,** "Fundamental Studies in Non-Faradaic Catalysis", Program: Greece-British Joint Research and Technology Programmes, **Coordinated by Prof. C.G. Vayenas.**
36. **1988-1991**, "Cogeneration of Electricity and Chemicals in Solid Electrolyte Cells with Catalytic Electrodes", Funded by VW Stiftung, F.R. of Germany, **Coordinated by Prof. C.G. Vayenas.**
37. 1988-1992, "Fabrication and Evaluation of Small SOFC Reactors", Non-nuclear Energy Programme EN3E/D2/407/UK, Funded by European Economic Community, **Coordinated by Prof. C.G. Vayenas.**
38. **1987-1990,** "Multichannel fuel cell reactors", Non-nuclear Energy Programme EN3E/167/E, Funded by European Economic Community, **Coordinated by Prof. C.G. Vayenas.**
39. 1983-1986, "Cogeneration of Electric Energy and Useful Chemicals in Fuel Cells", Funded by VW Stiftung, F.R. of Germany, **Coordinated by Prof. C.G. Vayenas.**

I.V. Yentekakis LIST OF PUBLICATIONS

A. Publications in Peer-Reviewed International Journals: 125 published

2025

1. Viktoria Sakavitsi, Renia Fotiadou, Mohammed Subrati, Kasibhatta Kumara Ramanatha Datta, Turki N. Baroud, Swarnamayee Behera, Konstantinos Spyrou, Mohamed A. Hammami, Panagiota Zygouri, Haralambos Stamatis, **Ioannis V. Yentekakis**, Dimitrios P. Gournis. Organically Functionalized Magnesium Phyllosilicates: Surface Engineering and Antibacterial Performance. ACS Omega 10(29) (2025) 31568-31576. https://doi.org/10.1021/acsomega.5c02154

2. Evangelia Choleva, Anastasios I. Labropoulos*, Evangelos Kouvelos, George V. Theodorakopoulos, Emmanuel Stamatakis, Spyros Bellas, Ioannis V. Yentekakis, Konstantinos G. Beltsios, George Em. Romanos*. Alkyl-methylimidazolium tricyanomethanide-based supported ionic liquid membranes for CO2 separation from flue gas and biogas. *Journal of Environmental Chemical Engineering, 13 (2025) 118562*. https://doi.org/10.1016/j.jece.2025.118562

3. Ersi Nikolaraki, Catherine Drosou, Christos K. Mytafides, Kalliopi Maria Papazisi, Stella Balomenou, Dimitrios Tsiplakides, Konstantinos G. Froudas, Pantelis N. Trikalitis, Paraskevi Panagiotopoulou, Dimitrios P. Gournis, **Ioannis V. Yentekakis***. Shape-controlled CeO_2 and GDC nanostructured supports turn Iridium to an efficient and highly selective CO_2 methanation catalyst. *Journal of Environmental Chemical Engineering, 13 (2025) 117434.* https://doi.org/10.1016/j.jece.2025.117434

4. C.K. Mytafides*, L. Tzounis, C. Prouskas, **I.V. Yentekakis**, A.S. Paipetis. Advanced functionalization of carbon fiber-reinforced polymer composites towards enhanced hybrid 4-terminal photo-thermal energy harvesting devices by integrating dye-sensitized solar cells and thermoelectric generators. *Chem. Eng. J. 503 (2025) 158400*. https://doi.org/10.1016/j.cej.2024.158400

2024

5. Athanasios Androulakis, Ersi Nikolaraki, Catherine Drosou, Kalliopi Maria Papazisi, Stella Balomenou, Dimitrios Tsiplakides, Konstantinos G. Froudas, Pantelis N. Trikalitis, Dimitrios P. Gournis, Paraskevi Panagiotopoulou*, **Ioannis V. Yentekakis***. Water-gas shift over Pt nanoparticles dispersed on CeO_2 and gadolinium-doped ceria (GDC) supports with specific nano-configurations. *Nanomaterials 14(23) (2024) 1928; https://www.mdpi.com/2079-4991/14/23/1928*.

6. C. Tallarou, A. Labropoulos, S. Stavropoulos, N. Passadakis, E. Stamatakis, S. Bellas, R. Gholami, **I.V. Yentekakis**. A Combined Experimental and Computational Study on the Effect of the Reactor Configuration and Operational Procedures on the Formation, Growth and Dissociation of Carbon Dioxide Hydrate. *Sustainability 16*(20) (2024) 8854; https://doi.org/10.3390/su16208854

7. F. Lygerakis, C. Gioti, D. Gournis, **I.V. Yentekakis**, M. Karakassides, D. Kolokotsa. Enhancing Building Energy Efficiency with Innovative Paraffin-Based Phase Change Materials, *Energies 17*(16) (2024) 4155; https://doi.org/10.3390/en17164155

8. Angela S. Kaloudi, Panagiota Zygouri, Konstantinos Spyrou, Antrea-Maria Athinodorou Eirini Papanikolaou, Mohammed Subrati, Dimitrios Moschovas, K. K. R. Datta, Zili Sideratou, Apostolos Avgeropoulos, Yannis V. Simos, Konstantinos I. Tsamis, Dimitrios Peschos, **Ioannis V. Yentekakis**, Dimitrios P. Gournis. A Strategic Synthesis of Orange Waste-Derived Porous Carbon via a Freeze-Drying Method: Morphological Characterization and Cytocompatibility Evaluation. *Molecules 29 (2024) 3967.* https://doi.org/10.3390/molecules29163967

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