Curriculum Vitae

IOANNIS V. YENTEKAKIS

Professor in Physical Chemistry
Director: Lab. of Physical Chemistry & Chemical Processes
Chairman: Department of Sciences, Technical University of Crete
TECHNICAL UNIVERSITY OF CRETE
73100 Chania, Crete, Greece

PERSONAL:

NATIONALITY	**:**	Greek
Born	**:**	Crete, November 28, 1960.
Current Address	**:**	Dept of Sciences, Technical University of Crete, 73100 Chania, Crete, Greece Tel.: +30 28210 37752, Fax: +30 28210 37844 ***e*-mail: yyentek@science.tuc.gr**

UNIVERSITY EDUCATION:

University of Patras, Dept. of Chemical Engineering (1978-87)

- **1983:** B. S. (Diploma) in Chemical Engineering
- **1987:** PhD in Chemical Engineering University of Patras. *Title: "Heterogeneous Catalytic Phenomena in Trickle Bed Reactors and in High Temperature Solid Oxide Fuel cells"*

ACADEMIC EXPERIENCE, TRAINING AND SCIENTIFIC CAREER:

1. Princeton University, N. Jersey, USA (1987-1988):

-Postdoctoral Fellow, Dept of Chemical Engineering.

2. Cambridge University, UK (1999-today):

-Close collaboration (research visits) with the team of Professor R.M. Lambert, department of Chemistry

3. University of Patras and ICE/HT-FORTH (1988-2001):

- **Assistant Professor**, Dept of Chemical Engineering, University of Patras (2000-2001)
- **Lecturer,** Dept of Chemical Engineering, University of Patras (1994-2000)
- **Collaborating Faculty Member** of ICE/HT-FORTH, (1994-today)
- **Temporary Faculty Member**, Chemical Engineering, University of Patras (1991-94)
- **Member** of ICE/HT-FORTH, Researcher (1992-94)
- **Senior Researcher**, ICE/HT-FORTH, Patras, Greece (1988-91)
- **Postdoctoral Fellow**, Dept Chemical Engineering, University of Patras (1988-91)

4. Technical University of Crete (2001-Today):

- **Professor** in Physical Chemistry, Department of Sciences, Technical University of Crete, Greece (2006-today)
- **Chairman,** Department of Sciences, Technical University of Crete (2007-2009)
- **Director** of the "Physical Chemistry and Chemical Processes" laboratory (2001-today).
- **Associate Professor** in Physical Chemistry, Department of Sciences, Technical University of Crete, Greece (2001-2006)

RESEARCH ACTIVITIES:

My research activities in these positions involve the subjects:

- Physical-Chemistry, Surfaces and Interfaces: Heterogeneous Catalysis and the role of promoters.
- Fuel Cells (Fuel cells' physical chemistry and thermodynamics, Analysis and design of novel fuel cell and electrochemical reactor concepts, mathematical modeling).
- Chemical kinetics and thermodynamic; Reactor and Chemical Processes Engineering.
- Non-Faradaic Electrochemical Modification of Catalytic Activity (NEMCA effect). Electrochemical Promotion in Catalysis.
- Electrocatalysis, Electrochemistry.
- Environmental Pollution Control; Catalytic Converters; Environmental Engineering.
- Natural gas, biofuels and hydrocarbons valorization.
- Hydrogen energy; Renewable energy sources.

ADMINISTRATIVE EXPERIENCES AND COMMITTEES:

- **Chairman,** Dept of Sciences, Technical University of Crete (2006-2009)
- **Regular Member of the Senate,** Technical University of Crete (2002-2003, 2007-2009)
- **Alternate Member of the Senate,** Technical University of Crete (2003-2007)
- **Member of the Committee of Graduate Studies** of the department of Sciences and the department of Environmental Engineering, Technical University of Crete (2001-today).
- **Member of the Central University Committee** for Economic and Research Development of the technical University of Crete (2005-2007).

EDITORSHIP:

Member of the Editorial Advisory Board of the following journals:

α/α	*Journal Title*	*Publisher*
1	The Open Energy and Fuels Journal	Bentham Open
2	The open Environmental Engineering Journal	Bentham Open

TEACHING EXPERIENCE:

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

(i) Undergraduate

-Introduction to Chemical Engineering
-Chemical Kinetics and Reactor Engineering
-Unit Operations & Heat Transfer
-Heterogeneous Catalysis
-Chemical and Energy Technologies
-Heterogeneous Reactor Engineering
-Air pollution control
-Physical Chemistry
-Thermodynamics
- Energy and Fuels

(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 modelling of Physical and Chemical Operations.
- Supervision of numerous Ph.D. and M.Sc. students.

AWARDS & HONORS:

- Crete Orthodox Academy Award 1978
- Athens Academy Award in the field of Chemistry 1992
- Hellenic Refinery of Aspropyrgos Fellowship 1984-1989
- ICE/HT-FORTH, Fellowship 1985-1987
- Chairman of international or national conferences' sessions: >20.

MEMBER OF CONFERENCES' ORGANIZER 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 International Society of Electrochemistry, Thessaloniki, GR., 2004
- 8th Panhellenic Catalysis Symposium, Cyprus, GR., 2006
- 10th Panhellenic Catalysis Symposium, Metsovo, GR., 2008
- 11th Panhellenic Catalysis Symposium, Athens, GR., 2010

REVIEWER OF SCIENTIFIC/RESEARCH ARTICLES:

More than 100 reviews in the following international journals:

α/α	*Journal Title*
1	Applied Catalysis B-Environmental
2	Industrial & Engineering Chemistry Research
3	Journal of Catalysis
4	International Journal of Hydrogen Energy
5	Catalysis Today
6	Journal of Power Sources
7	Ionics
8	Advances in Environmental Research
9	Solid State Ionics
10	Electrochemical & Solid State Letters
11	Journal of the Electrochemical Society
12	Solar Energy Journal
13	Applied Surface Science
14	Water, Air & Soil Pollution: Focus
15	Studies in Surface Science and Catalysis
16	Journal of Solid State Electrochemistry
17	Electrochimica Acta
18	Environmental Science & Pollution Research
19	The Open Energy and Fuels Journal
20	The Open Environmental Engineering Journal
21	Alloys and Compounds
22	Reaction Kinetics Mechanisms and Catalysis (REAC)

COLLABORATIONS:

Professor R.M. Lambert	Faculty of Chemistry, Cambridge University, UK
Professor T. Ioannides	Faculty of ICE/HT-FORTH, Patras, GR
Professor A. Lemonidou	Faculty of Chemical Engineering, Aristotle University of Thessaloniki, GR
Professor A. Tsetsekou	Faculty of Metallurgical Engineering, Technical University of Athens, GR
Professor G. Marnellos	Faculty of Engineering, University of West Macedonia, GR.
Dr. L. Nalbandian	Research faculty, NCR, Thessaloniki, GR
Professor N. Kalogerakis	Faculty of Environmental Engineering, Technical University of Crete, GR
Professor D. Mantzavinos	Faculty of Environmental Engineering, Technical University of Crete, GR
Professor M. Stoukides	Faculty of Chemical Engineering, Aristotle Univ of Thessaloniki, GR
Professor N. Kallithrakas-Kontos	Faculty of Sciences, Technical University of Crete, GR

Assistant Prof. M. Konsolakis Fuculty of Sciences, Technical University of Crete, GR

PUBLISHED WORK:

a1) Research papers (publications) in international peer-reviewed journals: 86
(mean impact factor of the journals: ~3.31)

a2) Research papers (publications) in national technical journals: 2

b) Patents: 3

c) Invited monograph (review paper of our work) in Scientific Journal: 1

d) Refereed publications in conference proceedings: 71

e) Chapters in Handbooks published by Elsevier, Wiley-VCH and CRC publishers: 3

f) Technical reports (e.g., Reports to EU): > 50

g) Conference presentations: >100

h) Invited lectures in international conferences and academic or industrial institutions: >30

- **CITATION INDEX: >1500** without self citations
- **h-index: 23**

➢ 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 and Industry, 17, September 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", *Chemical and Engineering News, June 13, p41 (1994).*
5. "Recycling reactions", P. Szuromi, *Science, 264, 1513 (1994)*

BOOKS AND CHAPTERS IN BOOKS: 10

1. **"Unit Operations"**, I.V. Yentekakis, *(in Greek), Patras University Press, 1995.*
2. **"Physical Separation Processes: Analysis and Design"**, I.V. Yentekakis, *(in Greek), Kleidarithmos Publ., Athens, 2010.*
3. **"Current methods of energy conversion and utilization. Fuel Cells"**, I.V. Yentekakis, Patras University Press, (in Greek), 1998.
4. **"Atmospheric Pollution and its Control"**, I.V. Yentekakis, (in Greek), *A. Tsiolas publ., Thessaloniki, 1999.*
5. **"Atmospheric Pollution: effects, control and advanced alternative clean technologies"**, I.V. Yentekakis, (in Greek), *Kleidarithmos Publ. Athens, 2010.*
6. **"Physical Chemistry"**, I.V. Yentekakis, (in Greek), *Technical University of Crete Press, 2001.*
7. **"Thermodynamics",** I.V. Yentekakis, *(in Greek), Technical University of Crete Press, 2002.*
8. **"Environmentally friendly technologies for natural gas valorization and use"**, I.V. Yentekakis, (in Greek), *Technical University of Crete Press, 2000.*
9. **"Analysis and Design of Chemical Reactors: Trickle-bed and Fluidized-bed Reactors"**, I.V. Yentekakis, (in Greek), *University of Patras, 1998.*
8. **"Non-Faradaic Electrochemical Modification of Catalytic Activity A Status Report"**. C.G. Vayenas, S. Bebelis, I.V. Yentekakis and H.-G. Lintz, **MONOGRAPH**, *Catalysis Today, **11**, 303-445 (1992)*
9. **"Electrocatalysis and Electrochemical Reactors",** C.G. Vayenas, S. Bebelis, I.V. Yentekakis and S. Neophytides, *The CRC Handbook of Solid State Electrochemistry, Chapter 13, 445-480 (1997)*

10. **″Electrochemical Modification of Catalytic Activity″**, C.G. Vayenas and I.V. Yentekakis, *Wiley-VCH Handbook of Heterogeneous Catalysis, Eds. G. Ertl, H. Knozinger and J. Weitkamp, Weinheim/New York, Vol. 3, 1310-1325 (1997).*

RESEARCH PROJECTS:

*1983-86, "Cogeneration of Electric Energy and Useful Chemicals in Fuel Cells", Funded by VW Stiftung, F.R. of Germany, (DM 90,000). Participation as Senior Researcher.
*1987-90, "Multichannel fuel cell reactors ", Funded by EU, Non-nuclear Energy Program, EN3E/167/E, (100,000 €). Participation as Senior Researcher.
*1988-92, "Fabrication and Evaluation of Small SOFC Reactors ", Funded by EU, Non-nuclear Energy Program, EN3E/D2/407/UK, (ECU 115,000). Participation as Senior Researcher.
*1988-91, "Cogeneration of Electricity and Chemicals in Solid Electrolyte Cells with Catalytic Electrodes", Funded by VW Stiftung, F.R. of Germany, (DM 65,000). Participation as Senior Researcher.
*1990-93, "Fundamental Studies of NonFaradaic Catalysis", Funded by EU, JOULE Programme, (100,000 €). Participation as senior Researcher.
*1990-93, "Operational Tests of SOFC Modules and Use of SOFC as Chemical Reactors", Funded by EU, JOULE Programme, (65,000 €). Participation as Senior Researcher.
*1991-94, "Use of SOFC as Chemical Reactor: Non-Faradaic Electrochemical Modification of Catalytic Activity and Selectivity of Partial Oxidation and CO Hydrogenation Catalysts", Funded by EU, JOULE Programme, (300,000 €). Participation as Senior Researcher.
*1992-95, "Development of improved catalytic converters", Funded by EU, STRIDE Programme, (385,000 €). Participation as Senior Researcher.
*1992-95, "New SOFC Materials and Technology", Funded by EU, CEC JOULE Programme, (98,000 €). Participation as Senior Researcher.
*1992-93, "Operational Tests of SOFC and use of SOFC as Chemical Reactor", Funded by EU, CEC JOULE Programme, (50,000 €). Participation as Senior Researcher.
*1993-96, "Fundamental Studies in Non-Faradaic Catalysis", Funded by British Council (Hellenic-British collaboration), (16,000 €). Participation as Senior Researcher.
*1998-2001, "Promotion of environmentally important catalytic reactions" Funded by ICE/HT-FORTH, Internal ICE/HT-FORTH programme (9,000 €). **Coordinator.**
*1999-2001, "Promotion by alkalies in emission control catalysis", Funded by GSRT and British Council, Athens (Greece-British Joint Research and Technology Programmes), (18,000 €). **Coordinator.**
* 2003-2007, "Kinetics, electrokinetics behavior and electrodic phenomena in novel fuel cells for environmentally important reactions", Funded by GSRT and EU, Program HERAKLEITOS, (65,000 €). **Coordinator.**
*2005-2008, "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.**
*2005-2008, "Development of novel very effective and selective automotive catalytic converters", Funded by GSRT and EU, Program PENED, (114,000 €). **Coordinator.**
*2006-2008, "Development of novel bi-metallic anodic materials for hydrocarbons' solid oxide fuel cells", Funded by GSRT and EU, Program Non-EU-242, (65,000 €). **Coordinator.**
*2007-2008, "Hydrogen production from catalytic treatment of hydrocarbons and biofuels", Funded by Technical University of Crete, (5,000 €). **Coordinator.**
*2008-2009, "Novel fuel cells for the production of electrical energy from biogas, biofuels and hydrocarbons", Funded by Technical University of Crete, (10,000 €). **Coordinator.**

PATENTS

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

2. 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).

3. Europian 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).

I.V. Yentekakis LIST OF PUBLICATIONS

A. Peer-Reviewed International Journals:

1) "Mathematical Modeling of Cross-Flow, Solid State Electrochemical Reactors". P.G. Debenedetti, C.G. Vayenas, I.V. Yentekakis, and L.L. Hegedus,
*ACS Ser., **10**, 171-196 (1984).*

2) "Cross-Flow, Solid State Electrochemical Reactors" A Steady-State Analysis". C.G. Vayenas, P.G. Debenedetti, I.V. Yentekakis, and L.L. Hegedus,
Ind. and Eng. Chem. Fundamentals, ***24**, 316-324 (1985).*

3) "Effectiveness Factors for Reactions Between Volatile and Non-volatile Components in Partially Wetted Catalysts".
I.V. Yentekakis and C.G. Vayenas,
*Chem. Engng. Science, **42**, 1323- 1332 (1987).*

4) "Solid Electrolyte Aided Study of the Mechanism of CO Oxidation on Polycrystalline Platinum".
I.V. Yentekakis, S. Neophytides and C.G. Vayenas,
J. Catalysis, ***111**, 152-170 (1988)*

5) "The Effect of Electrochemical Oxygen Pumping on the Steady-State and Oscillatory Behavior of CO Oxidation on Polycrystalline Pt".
I.V. Yentekakis, and C.G. Vayenas,
*J. Catalysis, **111**, 170-188 (1988)*

6) "Chemical Cogeneration in Solid Electrolyte Cells: The Oxidation of H_2S to SO_2"
I.V. Yentekakis and C.G. Vayenas,
J. Electrochem. Soc., ***136(4)**, 996-1002 (1989)*

7) "Non-Faradaic Electrochemical Modification of Catalytic Activity in Solid Electrolyte Cells".
C.G. Vayenas, S. Bebelis, S. Neophytides, and I.V. Yentekakis,
*Applied Physics A **49**, 95-103 (1989)*

8) "A Novel Fused Metal Anode, Solid Electrolyte Fuel Cell for Direct Coal Gasification: A Steady-State Model".
I.V. Yentekakis, P.G. Debenedetti and Bruno Costa,
*Ind. and Eng. Chem. Research, **28**, 1414-1424 (1989)*

9) "Non-Faradaic Electrochemical Modifications of the Catalytic Activity of Platinum Metals: REVERSIBLE PROMOTION OF PLATINUM METALS CATALYSTS".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras and H. Karasali,
*Platinum Metals Review, **34(3),** 122-130 (1990)*

10) "Solid Electrolytes for in situ Promotion of Catalyst surfaces:The NEMCA effect". C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras, H. Karasali, Ch. Karavasilis,
*ISSI Lett., **2**, 5-7 (1991)*

11) "Catalytic and Electrocatalytic Reactions in Solid Electrolyte Cells: The NEMCA effect".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras, H. Karasali, Ch. Karavasilis,
*Material Science Forum, **76**, 141-149 (1991)*

12) "Non-Faradaic Electrochemical Modification of Catalytic Activity A Status Report".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis and H.-G. Lintz,
Catalysis Today, ***11****, 303-445 (1992)*

13) "Non-Faradaic Electrochemical Modification of Catalytic Activity: The Work Function of Electrodes in Solid Electrolyte Cells".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis and S. Neophytides,
Solid State Ionics, ***53-59****, 97-110 (1992)*

14) "Study of the NEMCA Effect in a Single-Pellet Catalytic Reactor".
I.V. Yentekakis and S. Bebelis,
J. Catalysis, ***137****, 278-283 (1992)*

15) "Solid Electrolytes for in Situ Promotion of Catalyst Surfaces: The NEMCA Effect".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras, H. Karasali, Ch. Karavasilis,
Studies in Surface Science and Catalysis, ***75****, 2139-2142 (1992)*

16) "Ion spillover as the origin of NEMCA effect".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, S. Neophytides and Jiang Yi,
Studies in Surface Science and Catalysis, ***77****, 111-116 (1993).*

17) "Kinetics of Internal Steam Reforming of CH_4 and their effect on SOFC Performance".
I.V. Yentekakis, S.G. Neophytides, A.C. Kaloyiannis and C.G. Vayenas,
The Electrochemical Society Inc, (S. C. Singhal and H. Iwahara, Eds), ***Vol. 93-4****, 904-912 (1993).*

18) "The use of SOFC for Chemical Cogeneration and for Electrochemical Promotion (NEMCA)"
S. Bebelis, I.V. Yentekakis, S. Neophytides, P. Tsiakaras, H. Karasali and C.G. Vayenas,
The Electrochemical Society Inc., (S.C. Singhal and H. Iwahara, Eds), ***Vol. 93-4****, 926-937 (1993).*

19) "Non-Faradaic Electrochemical Modification of Catalytic Activity"
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, S. Neophytides and Y. Jiang,
The Electrochemical Society Inc., (T.A. Ramanarayanan, W.L. Worrell and H.L. Tuller, Eds), ***94/12****, 230-237 (1994).*

20) "In Situ Controlled Promotion of Catalyst Surfaces via NEMCA: The Effect of Na on Pt Catalyzed CO Oxidation".
I.V. Yentekakis, G. Moggridge, C.G. Vayenas and R.M. Lambert,
J. Catalysis, ***146****, 292-305 (1994)*

21) "Non-Faradaic Electrochemical Modification of Catalytic Activity: Solid Electrolytes as Active Catalyst Supports".
C.G. Vayenas, S. Bebelis, I.V. Yentekakis, Ch. Karavasilis and Y. Jiang,
Solid State Ionics, ***72****, 321-327 (1994)*

22) "Electrochemical Promotion in Catalysis: Non-Faradaic Electrochemical Modification of Catalytic Activity".
C.G. Vayenas, S. Ladas, S. Bebelis, I.V. Yentekakis, S. Neophytides, Jiang Yi, Ch. Karavasilis and C. Pliangos,
Electrochimica Acta, ***39****, 1849-1855 (1994).*

23) "Potentional-Programmed Reduction: A new Technique for Investigating the Thermodynamics and Kinetics of Chemisorption on Catalysts Supported on Solid Electrolytes".
Jiang Yi, I.V. Yentekakis and C.G. Vayenas,
J. Catalysis, ***148****, 240-251 (1994).*

24) "In situ controlled Promotion of Pt for CO Oxidation via NEMCA using CaF_2 as the Solid Electrolyte".
I.V. Yentekakis and C.G. Vayenas,
*J. Catalysis, **149**, 238-242 (1994).*

25) "Methane to Ethylene with 85% Yield in a Gas-Recycle Electrocatalytic Reactor Separator".
Y. Jiang, I.V. Yentekakis and C.G. Vayenas,
*Science, **264**, 1563-1566 (1994)*

26) "Support and NEMCA Induced Promotional Effects on the Activity of Automobile Exhaust Catalysts".
I.V. Yentekakis, C. Pliangos, V.G. Papadakis, X.E. Verykios and C.G. Vayenas,
*Studies in Surface Science and Catalysis, **96**, 375-385 (1995).*

27) ″Electrochemical Promotion in Emission Control Catalysis″.
R.M. Lambert, I.R. Harkness, I.V. Yentekakis and C.G. Vayenas,
*Ionics, **1(1)**, 29-32 (1995)*

28) ″In Situ Controlled Promotion of Catalyst Surfaces via Solid Electrolytes: Ethylene Oxidation on Rh and Propylene Oxidation on Pt″.
A.C. Kaloyannis, C.A. Pliangos, I.V. Yentekakis and C.G. Vayenas,
*Ionics, **1(2)**, 159-164 (1995)*

29) ″In Situ Controlled Promotion of Catalyst Surfaces via Solid Electrolytes: The NEMCA Effect″.
C.G. Vayenas, I.V. Yentekakis, S.I. Bebelis and S.G. Neophytides,
*Ber. Bunsenges. Phys. Chem., **99**, 1393-1401 (1995)*

30) ″Non-Faradaic Electrochemical Modification of Catalytic Activity: VIII: Rh catalyzed C_2H_4 oxidation″.
C.A. Pliangos, I.V. Yentekakis, X.E. Verykios and C.G. Vayenas,
*J. Catalysis, **154**, 124-136 (1995)*

31) ″Ethylene Production from Methane in a Gas Recycle Electrocatalytic Reactor Separator″.
I.V. Yentekakis, Y. Jiang, M. Makri and C.G. Vayanas,
*Ionics, **1(4),** 286-291 (1995)*

32) ″Electrochemical Promotion of Environmentally Important Catalytic Reactions″.
R.M. Lambert, M. Tikhov, A. Palermo, I.V. Yentekakis and C.G. Vayenas,
*Ionics, **1(5&6),** 366-376 (1995)*

33) ″Catalysis, Electrocatalysis and Electrochemical Promotion of the Steam Reforming of Methane over Ni Film and Ni-YSZ cermet Anodes″.
I.V. Yentekakis, Y. Jiang, S. Neophytides, S. Bebelis and C.G. Vayenas,
*Ionics, **1 (5&6),** 491-498 (1995)*

34) ″Electrochemical Promotion of Catalyst Surfaces Deposited on Ionic and Mixed Conductors″,
A.C. Kaloyannis, C.A. Pliangos, D.T. Tsiplakides, I.V. Yentekakis, S.G. Neophytides, S. Bebelis and C.G. Vayenas,
*Ionics, **1 (5&6)**, 414-420 (1995)*

35) "Non-Faradaic Electrochemical Modification of Catalytic Activity of Metal Films Deposited on Solid Electrolytes"
I.V. Yentekakis, S. Bebelis, S. Neophytides and C.G. Vayenas,
The Electrochemical Society Inc, (J. Bates, Ed), ***95/22**, 87-101 (1996).*

36) "Electrochemical Promotion of Alkene Oxidation by Nitric Oxide Over Pt / β"-Alumina"

R.M. Lambert, M. Tinkov, A. Palermo and I.V. Yentekakis,
*ACS Prepr., **41**, 15-19 (1996).*

37) ″A Novel Gas-Recycle Reactor-Separator for the Oxidative Coupling of Methane″
I.V. Yentekakis, M. Makri, Y. Jiang and C.G. Vayenas,
*ACS Prepr., **41**, 119-124 (1996).*

38) ″Development of High Performance, Pd-based, Three Way Catalysts″.
V.G. Papadakis, C.A. Pliangos, I.V. Yentekakis, X.E. Verykios and C.G. Vayenas,
*Catalysis Today, **29**, 71-75 (1996)*

39) ″Non-Faradaic Electrochemical Modification of Catalytic Activity: 9. Ethylene Oxidation on Pt Deposited on TiO_2″.
C.A. Pliangos, I.V. Yentekakis, S. Ladas and C.G. Vayenas, ,
*J. Catalysis, **159**, 189-203 (1996)*

40) ″Ethylene Oxidation over Pt: In Situ Electrochemically Controlled Promotion Using Na - β″ Alumina and Studies with a Pt(111)/Na Model Catalyst″.
I.R. Harkness, C. Hardacre, R.M. Lambert, I.V. Yentekakis and C.G. Vayenas,
*J. Catalysis, **160**, 19-26 (1996)*

41) ″Electrochemical Promotion by Na of the Platinum-Catalyzed Reaction between CO and NO″.
A. Palermo, R.M. Lambert, I.R. Harkness, I.V. Yentekakis, O. Marina and C.G. Vayenas,
*J. Catalysis, **161**, 471-479 (1996)*

42) ″Oxidative Coupling of Methane to Ethylene with 85% Yield in a Gas Recycle Electrocatalytic or Catalytic Reactor Separator″.
M. Makri, Y. Jiang, I.V. Yentekakis and C.G. Vayenas,
*Studies in Surface Science and Catalysis, **101**, 387-395 (1996)*

43) ″Electrochemical Promotion of NO Reduction by CO and by Propene″.
A. Palermo, M.S. Tinkov, N.C Filkin, R.M. Lambert, I.V. Yentekakis and C.G. Vayenas,
*Studies in Surface Science and Catalysis, **101**, 513-521 (1996)*

44) ″In Situ Controlled Promotion of Catalyst Surfaces: Non-Faradaic Electrochemical Modification of Catalytic Activity″,
S.G. Neophytides, S. Bebelis, I.V. Yentekakis, Y. Jiang, C. Pliangos, Ch. Karavasilis, S. Ladas and C.G. Vayenas ,
*Kinetics and Catalysis, **37(5),** 715-724 (1996)*

45) "Oxidative Coupling of Methane in a Solid Oxide Fuel Cell Reactor",
Y. Jiang, I.V. Yentekakis, M. Makri and C.G. Vayenas,
The Electrochemical Society Inc, (U. Stimming, S.C. Singhal, H. Tagawa and W. Lehnert, Eds), ***Vol. 97-18**, 235-243 (1997)*

46) ″In Situ Controlled Promotion of Catalyst Surfaces via NEMCA: The effect of Na on the Pt-catalysed NO reduction by H_2″.
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