

ΚΩΝΣΤΑΝΤΙΝΟΣ Γ. ΒΑΓΕΝΑΣ

Βιογραφικό Σημείωμα

Καθηγητής, Πανεπιστήμιο Πατρών
Τακτικό Μέλος, Ακαδημία Αθηνών
Μέλος της Εθνικής Ακαδημίας Μηχανικών των ΗΠΑ
Επιστημονικός εκδότης (Editor), Modern Aspects of Electrochemistry

Ημερομηνία γεννήσεως: 22 Σεπτεμβρίου 1950, Αθήνα

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Εκπαίδευση:

Δίπλωμα στη Χημική Μηχανική, Εθνικό Μετσόβιο Πολυτεχνείο, 1973
Ph.D. στη Χημική Μηχανική, University of Rochester (ΗΠΑ), 1977

Επιστημονική εμπειρία:

Μεταπτυχιακός βοηθός, University of Rochester, 9/1/73-9/1/76
Επίκουρος Καθ. Μηχανικής και Εφαρμοσμένης Έρευνας, Yale University, 9/1/76-9/1/77
Επίκουρος Καθ. Χημικής Μηχανικής, M.I.T., 9/1/77-9/1/78
Επίκουρος Καθ. Χημικής Μηχανικής Dupont, M.I.T., 9/1/78-6/1/80
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Καθηγητής Τμήματος Χημικών Μηχανικών, Παν/μιο Πατρών 1981-
Alexander von Humboldt Fellow, University of Karlsruhe, 1991
Επισκέπτης καθηγητής, Yale University, 1991-92
Προσκεκλημένος καθηγητής, EPFL, Lausanne, 1994
Προσκεκλημένος καθηγητής, Université de Lyon, 2007

Επαγγελματική εμπειρία:

Κοσμήτορας Πολυτεχνικής Σχολής, Πανεπιστήμιο Πατρών, 1983-85
Πρόεδρος Τμήματος Χημικών Μηχανικών, Πανεπιστήμιο Πατρών 1986-89 & 1993-95
Αναπληρωτής Πρόεδρος του ΔΙΚΑΤΣΑ, 1988-89
Αναπληρωτής Πρόεδρος του ΕΙΧΗΜΥΘ, 1985-87 & 1989-91
Αναπληρωτής Πρόεδρος του Εθνικού Ιδρύματος Ερευνών (ΕΙΕ), 1994 - 1995
Πρόεδρος του Εθνικού Ιδρύματος Ερευνών (ΕΙΕ), 1995 -1996
Πρόεδρος της Ελληνικής Καταλυτικής Εταιρείας, 1993 - 1995
Αντιπρύτανης Οικονομικού Προγραμματισμού και Ανάπτυξης Πανεπιστημίου Πατρών, 1997-2003
Μέλος της European Science and Technology Assembly (ESTA), 1997-2000
Μέλος Εθνικού Γνωμοδοτικού Συμβουλίου Έρευνας (ΕΓΣΕ), 1997-2001
Α΄ Αντιπρόεδρος Εθνικού Συμβουλίου Έρευνας και Τεχνολογίας (ΕΣΕΤ) 2001-2004
Πρόεδρος του τομέα 5, International Society of Electrochemistry (ISE), 2007-09
Τακτικό Μέλος της Ακαδημίας Αθηνών, 2010 -

Βιομηχανική εμπειρία:

Θερινή ερευνητική απασχόληση, W.R. Grace Research Center, August 81 and 82
Τεχνικός Σύμβουλος (Consultant), Celanese Co., Modar Inc., 1979-83, W.R. Grace, 1980,
Exxon 1991, Carten Controls 1991-92, Shell 1999

Ερευνητικά Ενδιαφέροντα:

Ετερογενής Κατάλυση, Φυσικοχημεία, Χημικοί Αντιδραστήρες, Ηλεκτροχημεία, Ηλεκτροκατάλυση, Ηλεκτροχημική Ενίσχυση της Κατάλυσης, Κυψέλες Καυσίμου (Fuel Cells), Χημική Συμπαράγωγη σε Κυψέλες Καυσίμου, Κινητική Χημικών και Ηλεκτροχημικών Αντιδράσεων, Σηράγγωση Πρωτονίων, Μαθηματική Μοντελοποίηση Χημικών και Φυσικών Συστημάτων, Βαρύτητα, Ειδική Σχετικότητα, Θερμοδυναμική των Στοιχειωδών Σωματιδίων, Μοντέλο περιστρεφόμενων λεπτονίων, Θερμοδυναμική και Κατάλυση της Βαρυογένεσης, Δημιουργία της Μάζας μέσω Βαρυτικού Συντοπισμού των Νετρίνων.

Βραβεία και Διακρίσεις:

Μέλος της Εθνικής Ακαδημίας Μηχανικών των ΗΠΑ, 2017
Επίτιμος διδάκτορας της Πολυτεχνικής Σχολής του ΑΠΘ, 2015
Τακτικό Μέλος της Ακαδημίας Αθηνών, 2010 -
Fellow του International Society of Electrochemistry (ISE) 2005
Γραμματεύς και Ταμίας, Διεθνής Εταιρία Ιοντικών Αγωγών (International Society of Solid State Ionics, 600 μέλη) 1988-2000
Μέλος της European Science and Technology Assembly (ESTA), 1997 - 2000
Βραβείο της Αμερικανικής Ηλεκτροχημικής Εταιρείας (Electrochemical Society) για το έργο μου στην επιστημονική περιοχή της Ηλεκτροχημείας Υψηλών Θερμοκρασιών, 1996
Βραβείο Χημικών Επιστημών, Εμπειρικό Ιδρυμα, 1994
Βραβείο Ακαδημίας Αθηνών στην Χημεία, 1992
Wason Medal for Materials Research, American Concrete Institute, 1992
Alexander von Humboldt Fellowship, 1990
B.F. Dodge Lecture, Yale University, 1989
H. and C. Dreyfus Teacher-Scholar Award, 1981
Outstanding Faculty Award, Department of Chemical Engineering, M.I.T. 1979 & 1981
E.H. Hooker Fellowship, University of Rochester, 1975.
Κρατικό βραβείο 1^{ου} βαθμού αποφοίτησεως (9.23) όλων των Σχολών ΕΜΠ, 1972
Υποτροφία του Ιδρύματος Κρατικών Υποτροφιών (IKY), 1969-73
Υποτροφία του Ιδρύματος Κρατικών Υποτροφιών (IKY) ως 1^{ος} εισαχθείς στο Τμήμα Χημικών Μηχανικών ΕΜΠ, 2^{ος} στο ΕΜΠ, 1968-69
Έπαινος της Ελληνικής Μαθηματικής Εταιρείας, 1968

Επιστημονικός εκδότης (Editor):

Modern Aspects of Electrochemistry, 2001-
Ionics, Associate Editor, 1999-2004
Solid State Ionics, Guest Editor, 1999-2000
Topics in Catalysis, Guest Editor, 2006-2007
Journal of Applied Electrochemistry, Guest Editor, 2008
Catalysis Today, Guest Editor, 2009

Μέλος Εκδοτικής Επιτροπής Διεθνών Περιοδικών

Topics in Catalysis
Catalysis Letters
Ionics
Journal of New Materials for Electrochemical Systems

Chemical Industry
ChemElectroChem

Επαγγελματικοί Σύλλογοι και Επιτροπές στους οποίους είναι μέλος:

International Society for Solid State Ionics, Γραμματεύς και Ταμίας	(1998-2000)
European Science and Technology Assembly (ESTA)	(1997-)
Εθνικό Γνωμοδοτικό Συμβούλιο Έρευνας	(1997-)
Ελληνική Καταλυτική Εταιρεία, Πρόεδρος	(1993-95)
Μέλος του European Working Party on Catalysis in Reaction Engineering,	(1991-)
Μέλος του Council of Scientists of the International Association for the Promotion of Cooperation with Scientists from the independent states of the former Soviet Union	(1993-)
Έλληνας αντιπρόσωπος της European Federation of Catalysis,	(1993-)
Μέλος του U.S. IEC National Program Committee,	(1980-82)
American Institute of Chemical Engineers	
American Chemical Society	
Electrochemical Society	
North American Catalytic Society	
Τεχνικό Επιμελητήριο Ελλάδος	
Sigma Chi	

Οργάνωση Διεθνών Συνεδρίων:

Μέλος της οργανωτικής και επιστημονικής επιτροπής:

- 1^o Πανελλήνιο Συμπόσιο Κατάλυσης, Πάτρα 1987
- 2^o Πανελλήνιο Συμπόσιο Κατάλυσης, Πάτρα 1989
- 2^o International Conference on Solid Oxide Fuel Cells, Athens 1991
- 1st International Conference on Electrocatalysis, Ferrara 1993
- 1st Euroconference on Solid State Ionics, Zakynthos 1994
- 2nd Euroconference on Solid State Ionics, Portugal 1995
- 4^o Πανελλήνιο Συμπόσιο Κατάλυσης, Πάπυγκο 1995
- 3rd Euroconference on Solid State Ionics, Sardinia 1996
- 192nd Annual Meeting of the Electrochemical Society, Paris, 1997
- 4th International Conference on Spillover, Dalian, China, 1997
- 3rd World Congress on Oxidation Catalysis, San Diego, USA, 1997
- 12th International Conference on Solid State Ionics (SSI-12, 460 Σύεδροι), Thessaloniki
1999, Conference Chairman
- 50th International Society of Electrochemistry, (ISE) Meeting, Pavia, Italy, 1999
- 3rd International Symposium on Electrocatalysis, Portoroz, Slovenia, 2000
- 12th International Congress on Catalysis, Granada, Spain, 2000
- 55th International Society of Electrochemistry Meeting (ISE) Thessaloniki, 2004
- 19th North American Catalysis Meeting, Philadelphia, 2005

Χρηματοδοτούμενη έρευνα μέχρι σήμερα: ~5,800,000 Euro

Δημοσιεύσεις σε διεθνή περιοδικά με κριτές: 260 (Εκ των οποίων 4 στα περιοδικά Science και Nature)

Βιβλία που έχω συγγράψει: 3, περιλαμβανομένου του “*Electrochemical Activation of Catalysis: Promotion, Electrochemical Promotion and Metal-Support Interactions*” C.G. Vayenas, S. Bebelis, C. Pliangos, S. Brosda, and D. Tsiplakides, Kluwer/Plenum Press, New York (2001).

Κεφάλαια σε βιβλία που έχω συγγράψει: 12

Βιβλία που έχω επιμεληθεί: 8, περιλαμβανομένου του “*Catalysis and Electrocatalysis at Nanoparticles Surfaces*” (A. Wieckowski, E. Savinova & C.G. Vayenas, eds.), Marcel Dekker Inc., New York - Basel (2003).

Διπλώματα ευρεσιτεχνίας (Ευρωπαϊκά και Διεθνή): 12 (ένα αγοράστηκε από την εταιρεία BASF, Γερμανία)

Ετεροαναφορές: ~5475 (h-index 48) *Science Citation Index Expanded (ISI Web of Science®)*, (h-index 61) (*scholar google*)

Επιστημονικά άρθρα τρίτων αναφερόμενα αποκλειστικά στην έρευνά μας : 9

Συμμετοχές σε Διεθνή Συνέδρια : >100

Προσκεκλημένες διαλέξεις σε Πανεπιστήμια και Ερευνητικά Κέντρα: 111

Προσκεκλημένες, keynote και plenary διαλέξεις σε Διεθνή Συνέδρια: 78

Επίβλεψη Διδακτορικών Διατριβών: 37 (12 είναι ήδη καθηγητές σε ΑΕΙ ή Κύριοι Ερευνητές σε Ερευνητικά Κέντρα).

ΔΗΜΟΣΙΕΥΣΕΙΣ

A. ΣΕ ΔΙΕΘΝΗ ΠΕΡΙΟΔΙΚΑ ΜΕ ΚΡΙΤΕΣ

1979

- J1. “Chemistry at Catalyst Surfaces: The Oxidation of SO₂ on noble metals”, C.G. Vayenas and H.M. Saltsburg, *J. Catal.* **57**, 296-314 (1979)

1980

- J2. “Solid Electrolyte Aided Study of the Oxidation of Ethylene Oxide on Silver”, M. Stoukides and C.G. Vayenas, *J. Catal.* **64**, 18-28 (1980)
- J3. “Kinetics, Limit Cycles and Mechanism of Ethylene Oxidation on Pt”, C.G. Vayenas, B. Lee and J. Michaels, *J. Catal.* **66**, 36-48 (1980)
- J4. “Cogeneration of Electric Energy and Nitric Oxide”, C.G. Vayenas and R.D. Farr, *Science* **208**, 593-595 (1980)
- J5. “Ammonia High Temperature Solid Electrolyte Fuel Cell”, R.D. Farr and C.G. Vayenas, *J. Electrochem. Soc.* **127**, 1478-1483 (1980)

1981

- J6. “The role of PtO_x in the isothermal rate and oxygen activity oscillations of the Ethylene Oxidation on Pt”, C.G. Vayenas, C.Georgakis, J. Michaels and J. Tormo, *J. Catal.* **67**, 348-361 (1981)
- J7. “Solid Electrolyte-Aided Study of the Ethylene Oxidation on Polycrystalline Silver”, M. Stoukides and C.G. Vayenas, *J. Catal.* **69**, 18-31 (1981)
- J8. “The effect of Electrochemical Oxygen Pumping on the Rate and Selectivity of Ethylene Oxidation on Polycrystalline Silver”, M. Stoukides and C.G. Vayenas, *J. Catal.* **70**, 137-146 (1981)
- J9. “The effect of Homogeneous Gas Phase Oxidations in Char Particle Gasification”, R. Cwiklinski, C.G. Vayenas, C. Georgakis and J. Wei, *Chem. Eng. Science* **36 (12)**, 1883-1896 (1981)
- J10. “Ammonia Oxidation to Nitric Oxide in a Solid Electrolyte Fuel Cell”, C. Sigal and C.G. Vayenas, *Solid State Ionics* **5**, 567-570 (1981)

1982

- J11. “Kinetics and Rate Oscillations of the oxidation of Propylene Oxide on Silver”, M. Stoukides and C.G. Vayenas, *J. Catal.* **74**, 266-274 (1982)
- J12. “Response to Comments on the Model of Isothermal Oscillations of Ethylene Oxidation on Pt”, C.G. Vayenas, C. Georgakis, and J.Michaels, *J. Catal.* **73**, 201-204 (1982)
- J13. “On the Stability Limit of Surface Platinum Oxide and its role in the oscillatory behavior of Platinum Catalyzed Oxidations”, C.G.Vayenas and J. Michaels, *Surface Science* **120**, L405-L408 (1982)

1983

- J14. “Steady State Analysis of High Temperature Fuel Cells”, P.G. Debenedetti and C.G.Vayenas, *Chem. Engin. Sci.* **38(11)**, 1817-1829 (1983)
- J15. “Solid Electrolyte Aided-Study of Propylene Oxidation on Polycrystalline Silver”, M. Stoukides and C.G. Vayenas, *J. Catal.* **82**, 45-55 (1983)

1984

- J16. “Electrocatalytic Rate Enhancement of Propylene Epoxidation on Porous Silver Electrodes Using a Zirconia Oxygen Pump”, M. Stoukides and C.G. Vayenas, *J. Electrochem. Soc.* **131(4)**, 839-845 (1984)

- J17.** “Kinetics of Vapor-Phase Electrochemical Oxidative Dehydrogenation of Ethylbenzene”, J.N. Michaels and C.G. Vayenas, *J. Catalysis* **85**, 477-487 (1984)
- J18.** “Styrene Production from Ethylbenzene on Platinum in a zirconia Electrochemical Reactor”, J.N. Michaels and C.G. Vayenas, *J. Electrochem. Soc.* **131**(11), 2544-2550 (1984)
- J19.** “Comment on the “Interpretation of the Electromotive Forces of Solid Electrolyte Concentration Cells during CO oxidation on Platinum” and on “Electromotive-Forces Studies of CO oxidation on Platinum”, C.G. Vayenas, *J. Catalysis* **90**, 371-373 (1984)
- 1985**
- J20.** “Cross-Flow Solid-State Electrochemical Reactors: A steady-state Analysis”, C.G. Vayenas, P.G. Debenedetti, Y. Yentekakis and L.L. Hegedus, *Ind. & Eng. Chem. Fundamentals* **24**, 316-324 (1985)
- 1986**
- J21.** “Optimal Residence Time Distribution for Product Yield Maximization in Chemical Reactors”, V. Nestoridis, I. Andreou and C.G. Vayenas, *J. of Optimization Theory and Applications (JOTA)* **49**(2), 271-287 (1986)
- J22.** “A Novel Cross-Flow Design for Solid State Electrochemical Reactors”, J.N. Michaels, C.G. Vayenas and L.L. Hegedus, *J. Electrochem. Soc.* **133**(3), 522-525 (1986)
- 1987**
- J23.** “Effectiveness Factors for reactions between volatile and non-volatile components in partially wetted catalysts”, I. Yentekakis and C.G. Vayenas, *Chem. Engng. Science* **42**(6), 1323-1332 (1987)
- J24.** “Optimal Catalyst Distribution and Generalized Effectiveness Factors in Pellets: Single Reactions with Arbitrary kinetics”, C.G. Vayenas and S. Pavlou, *Chem. Engng. Science* **42**(11), 2633-2645 (1987)
- J25.** “Optimal Catalyst Distribution for Selectivity Maximization in Pellets: Parallel and Consecutive Reactions”, C.G. Vayenas and S. Pavlou, *Chem. Engng. Science* **42**(7), 1655-1666 (1987)
- J26.** “Optimal Catalyst Distribution in Pellets with Shell Progressive Poisoning”, T. Bacaros, S. Bebelis, S. Pavlou and C.G. Vayenas in “Catalyst Deactivation 1987”, P. Delmon, G.F. Froment (eds) “Studies in Surface Science and Catalysis”, Elsevier, Amsterdam, **34**, 459-468 (1987)
- 1988**
- J27.** “Optimal Catalyst Distribution for Selectivity Maximization in Nonisothermal Pellets: The case of Parallel Reactions”, C.G. Vayenas and S. Pavlou, *Chem. Engng. Science* **43**(10), 2729-2740 (1988)
- J28.** “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**, 152-169 (1988)
- J29.** “The Effect of Electrochemical O²⁻ 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)
- J30.** “Catalytic and Electrocatalytic Reactions in Solid Oxide Fuel Cells”, C.G. Vayenas, *Solid State Ionics*, Review Paper, **28-30**, 1521-1539 (1988)
- J31.** “Non-Faradaic Electrochemical Modification of Catalytic Activity”, C.G. Vayenas, S. Bebelis and S. Neophytides, *J. Phys. Chem.* **92**, 5083-5085 (1988)
- J32.** “Mathematical Modelling of SLC Precalciners”, S. Kolifetis and C.G. Vayenas, *ZKG (Zement-Kalk-Gypsum) International* **41**(11), 559-563 (1988)

1989

- J33.** “Optimal Catalyst Distribution for Selectivity Maximization in Nonisothermal Pellets: The Case of Consecutive Reactions”, C.G. Vayenas, S. Pavlou and A. Pappas, *Chem. Engng. Science* **44**(1), 133-145 (1989)
- J34.** “Non-Faradaic Electrochemical Modification of Catalytic Activity: 1. The case of Ethylene Oxidation on Pt”, S. Bebelis and C.G. Vayenas, *J. Catalysis* **118**, 125-146 (1989)
- J35.** “Non-Faradaic Electrochemical Modification of Catalytic Activity: 2. The case of Methanol Dehydrogenation and Decomposition on Ag”, S. Neophytides and C.G. Vayenas, *J. Catalysis* **118**, 147-163 (1989)
- J36.** “Chemical Cogeneration in Solid Oxide Fuel Cells: The Oxidation of H₂S to SO₂”, I.V. Yentekakis and C.G. Vayenas, *J. Electrochem. Soc.* **136**, 996-1002 (1989)
- J37.** “Feste Ionenleiter in der Heterogene Katalyse”, H.-G. Lintz and C.G. Vayenas, (review paper) *Angewandte Chemie* **101**(6), 725-732 (1989)
- J38.** “Solid Ion Conductors in Heterogeneous Catalysis”, H.-G. Lintz and C.G. Vayenas (review paper) *Angewandte Chemie Intern. Ed. in Engl.* **28**(6), 708-715 (1989)
- J39.** “In Situ High Temperature SERS on Ag Catalysts and Electrodes during Ethylene Epoxidation”, S. Boghosian, S. Bebelis, C.G. Vayenas and G.N. Papatheodorou, *J. Catal.* **117**, 561-565 (1989)
- J40.** “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)
- J41.** “A Reaction Engineering Approach to the Problem of Concrete Carbonation”, V. Papadakis, C.G. Vayenas and M.N. Fardis, *AIChE J.* **35**(10), 1639-1650 (1989)

1990

- J42.** “Chemical Cogeneration in Solid Electrolyte Cells: The Oxidation of CH₃OH to H₂CO”, S. Neophytides and C.G. Vayenas, *J. Electrochem. Soc.* **137**(3), 839-845 (1990)
- J43.** “Optimal Catalyst Activity Profile in pellets with Shell-progressive Poisoning: The case of fast linear kinetics”, S. Pavlou and C.G. Vayenas, *Chem. Engng. Science* **45**(3), 695-703 (1990)
- J44.** “Optimal Catalyst Activity Distribution for Selectivity Maximization in Triangular Reaction Networks: Application to the cases of Oxidative Coupling of CH₄ and Epoxidation of C₂H₄”, S. Pavlou and C.G. Vayenas, *J. Catal.* **122**, 389-405(1990)
- J45.** “The Dependence of Catalytic Activity on Catalyst Work Function”, C.G. Vayenas, S. Bebelis and S. Ladas, *Nature* **343**, 625-627 (1990)
- J46.** “Non-Faradaic Electrochemical Modification of Catalytic Activity on Pt Metals” C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras and H. Karasali, *Plat. Met. Rev.* **34**(3), 122-130 (1990)
- J47.** “Non-Faradaic Electrochemical Modification of Catalytic Activity: Partial Oxidation of C₂H₄ on Ag and CH₃OH on Pt”, C.G. Vayenas, S. Bebelis and S. Neophytides in “New Developments in Selective Oxidation” G. Centi and F. Trifiro Ed., “*Studies in Surface Science and Catalysis*” **55**, pp. 643-652, Elsevier, Amsterdam (1990)

1991

- J48.** “Non-Faradaic Electrochemical Modification of Catalytic Activity: 3. The Case of Methanol Oxidation on Pt”, C.G. Vayenas and S. Neophytides, *J. Catalysis* **127**, 645-664 (1991)
- J49.** “Physical and Chemical Characteristics Affecting the Durability of Concretes”, V.G. Papadakis, M.N. Fardis and C.G. Vayenas, *ACI Materials J.* **88**(2), 186-196 (1991)

- J50.** “Experimental investigation and Mathematical modeling of the concrete carbonation problem”, V.G. Papadakis, C.G. Vayenas and M.N. Fardis, *Chem. Engng. Sci.* **46** (5/6), 1333-1338 (1991)
- J51.** “Oxidative Coupling of Methane over Ytria-doped Zirconia Solid Electrolyte”, S. Seimanides, P. Tsiakaras, X.E. Verykios and C.G. Vayenas, *Appl. Catalysis* **68**, 41-53 (1991)
- J52.** “Fundamental Modeling and Experimental Investigation of Concrete Carbonation”, V. Papadakis, C.G. Vayenas and M.N. Fardis, *ACI Materials J.* **88**(4), 363-373 (1991)
- J53.** “Non-Faradaic Electrochemical Modification of Catalytic Activity: 4. The use of β "-Al₂O₃ as the solid electrolyte”, C.G. Vayenas, S. Bebelis and S. Despotopoulou, *J. Catalysis* **128**, 415-435 (1991)
- J54.** “Solid Electrolyte Cyclic Voltammetry for in situ Investigation of Catalyst Surfaces”, C.G. Vayenas, A. Ioannides and S. Bebelis, *J. Catalysis* **129**, 67-87 (1991)
- J55.** “Solid Electrolytes and Catalysis. Part 1: Chemical Cogeneration”, C.G. Vayenas, S. Bebelis and C. Kyriazis, *Chemtech* **21**, 422-428 (1991)
- J56.** “Solid Electrolytes and Catalysis. Part 2: Non-Faradaic Catalysis”, C.G. Vayenas, S. Bebelis and C. Kyriazis, *Chemtech* **21**, 500-505 (1991)
- J57.** “Comment on the “Optimal catalyst activity profiles in pellets-VIII. General nonisothermal reacting systems with arbitrary kinetics”, S. Pavlou, C.G. Vayenas and G. Dassios, *Chem. Eng. Science* **46**(12), 3327-3328 (1991)
- J58.** “Work Function Measurements on Catalyst Films subject to in-situ Electrochemical Promotion”, S. Ladas, S. Bebelis and C.G. Vayenas, *Surface Science* **251/252**, 1062-1069 (1991)
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2. Volumes 136 & 137 of *Solid State Ionics*, “Proceedings of the 12th International Conference on Solid State Ionics”, (2000).
3. Volumes 36, 37, 38, 39, 40, 41 and 42 of *Modern Aspects of Electrochemistry*, B. Conway, R.E. White and C.G. Vayenas, eds. (2003-).
4. Volume 44 of *Topics in Catalysis*, Electrochemical Promotion of Catalysis, C.G. Vayenas, R.M. Lambert, C. Comninellis, eds, (2007).

D. ΠΡΟΣΚΕΚΛΗΜΕΝΑ ΚΕΦΑΛΑΙΑ ΣΕ ΒΙΒΛΙΑ

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2. “Non-Faradaic Electrochemical Modification of Catalytic Activity: A Status Report”, C.G. Vayenas, S. Bebelis, I.V. Yentekakis and H.-G. Lintz, Monograph published as a Special Issue of *Catalysis Today*, Elsevier, *Catalysis Today* **11(3)**, 303-442 (1992)
3. “Electrochemical Activation of Catalyzed Reactions”, C.G. Vayenas in “Elementary Reaction Steps in Heterogeneous Catalysis”, R.W. Joyner & R.A. van Santen eds., Kluwer Academic Publishers, Dordrecht 1993, pp. 73-92.
4. “The Electrochemical Activation of Catalysis”, C.G. Vayenas, M.M. Jaksic, S. Bebelis and S.G. Neophytides, in «*Modern Aspects of Electrochemistry*» (J.O’M. Bockris, B.E. Conway and R.E. White eds) Vol. **29**, pp. 57-202 Plenum Press, NY, (1995).
5. “Electrochemical Activation of Catalysis: In situ controlled promotion of catalyst surfaces” C.G. Vayenas and S. Neophytides in “Catalysis-Special periodical Report”, Royal Society of Chemistry, Cambridge, Vol. **12**, pp. 199-253 (1996)
6. “Electrocatalysis and Electrochemical Reactors” C.G. Vayenas, S. Bebelis, I.V. Yentekakis & S. Neophytides, CRC «*Handbook on Solid State Electrochemistry*» (P.J. Gellings and H.J.M. Bouwmeester eds.) CRC Press, Inc., Boca Raton, Chapter 13, pp. 445-480 (1997).
7. “Electrochemical Modification of Catalytic Activity”, C.G. Vayenas and I.V. Yentekakis, «*Handbook of Catalysis*», (G. Ertl, H. Knötzinger and J. Weitcamp eds) VCH Publishers, Weinheim, Vol. 3, pp. 1310-1338 (1997).
8. “Electrocatalysis, catalysis and electrochemical promotion in solid electrolyte cells”, C.G. Vayenas and S.I. Bebelis, “*Oxygen ion and mixed conductors and their technological applications*” (H.L. Tuller et al., eds), Kluwer Academic Publishers, pp. 123-164 (2000)
9. “Promotion, Electrochemical Promotion, and Metal-Support Interactions: The Unifying Role of Spillover”, C.G. Vayenas, C. Pliangos, S. Brosda and D. Tsiplakides, in “*Catalysis and Electrocatalysis at Nanoparticles Surfaces*” (A. Wieckowski, E. Savinova & C.G. Vayenas, eds.), Marcel Dekker Inc., New York - Basel (2003).
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11. “Electrochemical Modification of Catalytic Activity”, C.G. Vayenas, A. Katsaounis, S. Brosda and A. Hammad, Ch. 8.1.2 in *Handbook of Heterogeneous Catalysis*, 2nd Edition, (G. Ertl, H. Knötzinger, F. Schüth and J. Weitkamp, eds), Wiley-VCH (2007).
12. “NEMCA effect”, C.G. Vayenas, in *Electrochemical Dictionary*, (A.J. Bard, G. Inzelt, and F. Scholz, eds), Springer (2007).
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E. ΑΗΜΟΣΙΕΥΣΕΙΣ ΣΕ ΠΡΑΚΤΙΚΑ ΣΥΝΕΔΡΙΩΝ ΜΕ ΚΡΙΤΕΣ

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2. "Transient and Steady State Vapor Phase Electrocatalytic Ethylene Epoxidation: Voltage, Electrode Surface Area and Temperature Effects", M. Stoukides and C.G. Vayenas, ACS Monograph Ser. on "Catalysis Under Transient Conditions", A.Bell and L.L. Hegeudus eds., ACS Symp. Series 178, 181-208 (1982)
3. "Rate Oscillations During Propylene Oxide Oxidation on Silver Films in a CSTR", M. Stoukides, S. Seimanides and C.G. Vayenas, ACS Symp. Series 196, 165-178 (1982)
4. "Thermodynamic Analysis and computer simulations of a cogeneration process using ASPEN.II. Sulfur oxidation process with Fuel Cell Technology", Y. Yang, P.G. Debenedetti, H. Britt, C.G. Vayenas and L. Evans, Proc. Int. Symp. on Process Systems Engineering, p.17, Kyoto (1982)
5. "Mathematical Modelling of Cross-Flow Solid State Electrochemical Reactors", C.G. Vayenas, P.G. Debenedetti, Y. Yentekakis and L.L. Hegeudus, ACS Symp. Series, 237, 171-196, (1984)
6. "Electrochemical modification of the properties of Partial Oxidation Catalysts", M. Stoukides and C.G. Vayenas, Proc. 8th Int. Congress on Catalysis, 4, 827-834 (1984)
7. "Catalytic and Electrocatalytic Reactions in Solid Oxide Fuel Cells", C.G. Vayenas, in Proc. 6th International Conf. on Solid State Ionics, Garmisch-Partenkirchen, North Holland, Amsterdam, pp. 1521-1539 (1988)
8. "Fundamental Concrete Carbonation Model and Application to Durability of Reinforced Concrete", V.G. Papadakis, M.N. Fardis and C.G. Vayenas, Proc. 5th Inter. Conf. on Durab. of Build. Mat. and Comp., Brighton, U.K., pp. 27-38 (1990)
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11. "Mathematical Modeling of Cross-flow, Counter-flow and Cocurrent-flow Solid Oxide Fuel Cells: Theory and some preliminary experiments", I.V. Yentekakis, S. Neophytides, S. Seimanides and C.G. Vayenas, Proc. 2d Intl. Conference on Solid Oxide Fuel Cells, Athens, Greece, pp. 281-288, Offic. Publ. of the EEC, Luxembourg (1991)
12. "Catalytic and Electrocatalytic Reactions in Solid Electrolyte Cells: The NEMCA effect" C.G. Vayenas, S. Bebelis, I.V. Yentekakis, P. Tsiakaras, H. Karasali and Ch. Karavasilis, Proc. 3d Intl. Conference on Fast Ionic Transport in Solids, Holzgau, 1991, Trans Tech Publ., Zurich, pp. 141-148 (1991)
13. "Work Function Measurements in Solid Electrolyte Cells: Dependence of Electrode Work Function on Electrode Potential and Polarization". S. Bebelis and C.G. Vayenas, Proc. 3d Intl. Conference on Fast Ionic Transport in Solids, Holzgau, 1991, Trans Tech Publ., Zurich, pp. 221-224 (1991)
14. "NEMCA: The Oxidation of CO on Pt", H. Karasali and C.G. Vayenas, Proc. 3d Intl. Conference on Fast Ionic Transport in Solids, Holzgau, 1991, Trans Tech Publ., Zurich, pp. 171-174 (1991)
15. "NEMCA: The Oxidation of CO on Ag", Ch. Karavasilis, S. Bebelis and C.G. Vayenas, Proc. 3d Intl. Conference on Fast Ionic Transport in Solids, Holzgau, 1991, Trans Tech Publ., Zurich, pp. 175-178 (1991)

16. “NEMCA: Methane oxidation on Pt”, P. Tsiakaras and C.G. Vayenas, Proc. 3d Intl. Conference on Fast Ionic Transport in Solids, Holzgau, 1991, Trans Tech Publ., Zurich, pp. 179-182 (1991)

F. ΔΙΠΛΩΜΑΤΑ ΕΥΡΕΣΙΤΕΧΝΙΑΣ

- P1.** U.S. Patent 4,272,336 “Method and Apparatus for Forming Nitric Oxide from Ammonia”, C.G. Vayenas and D.E. Ortman (1981).
- P2.** U.S. Patent 4,329,208 “Method and Apparatus for Forming Ethylene Oxide from Ethylene”, C.G. Vayenas and M. Stoukides (1982).
- P3.** U.S. Patent 4,463,065 “Fuel Cell and Method for Conducting Gas Phase Oxidations”, L.L. Hegedus, C.G. Vayenas and J.N. Michaels (1984).
- P4.** U.S. Patent 4,512,964 “Method for Forming Nitric Oxide from Ammonia”, C.G. Vayenas and C.E. Teague (1985).
- P5.** U.S. Patent 4,643,806 “Electrocatalytic Energy Conversion and Chemicals Production”, L.L. Hegedus, C.G. Vayenas and J.N. Michaels (1987).
- P6.** European Patent Appl. 90600021.1 “Metal-Solid Electrolyte Catalysts”, C.G. Vayenas, S. Bebelis, I.V. Yentekakis and P. Tsiakaras (1990); European Patent 0480116; 24.7.1996. Αγοράστηκε από την εταιρεία BASF.
- P7.** PCT Patent Appl. GR94/00001 “Method and Apparatus for Forming Ethylene from Methane” C.G. Vayenas, I.V. Yentekakis and Y. Jiang (1994). Εκδόθηκε σε 8 χώρες.
- P8.** European Patent Appl. 94600002.3 “New monolithic three-way catalysts with optimized distribution of precious metals within three separate washcoat layers” C.G. Vayenas, X.E. Verykios, V.G. Papadakis, I.V. Yentekakis, C. Pliangos (1994). European Patent 0665047; 26.08.98.
- P9.** U.S. Patent 6,194,623 B1 “Hydrogenation of organic compounds with the use of the NEMCA effect” A. Frenzel, C.G. Vayenas, A. Giannikos, P. Petrolekas, C. Pliangos (2001).
- P10.** PCT/GR2003/000032 “Triode fuel cell and battery and method for conducting exothermic chemical reactions” C. G. Vayenas, S. Balomenou (2003).
- P11.** PCT/GR2004/000006 “Method and Apparatus for carrying out electrochemically promoted reactions” C.G. Vayenas, S. Balomenou, D. Tsiplakides, A. Katsaounis, S. Brosda, G. Foti, C. Comninellis, S. Thiemann-Handler, B. Cramer (2004).
- P12.** U.S. Patent 7,267,807 B2 “Method and Device for Treating Automotive Exhaust” Leo B. Kriksunov and C.G. Vayenas, (2007).

G. ΕΠΙΣΤΗΜΟΝΙΚΑ ΑΡΘΡΑ ΤΡΙΤΩΝ ΑΝΑΦΕΡΟΜΕΝΑ ΑΠΟΚΛΕΙΣΤΙΚΑ ΣΤΗΝ ΕΡΕΥΝΑ ΜΑΣ

- D1.** “Fuel Cell Yields Nitric Oxide”, C & EN May 19, (1980), p. 32
- D2.** “Cogeneration of Nitric Acid and Electricity. Platinum Electrodes Employed in High-Temperature Fuel Cell”, Platinum Metals Review 25 (2), April (1981), p.56
- D3.** “Applied Highlights: Fuel cells for cogenerating electricity and SO₂”, Chemistry and Industry, 17, September 4, (1989), p. 571
- D4.** “Electrochemical Promotion”, by J. Pritchard, Nature 343, pp.592-593 (1990)
- D5.** “American Concrete Institute Honors 25, one Association”, Concrete International 15, 15-22 (1993)
- D6.** “Recycling reactions” P. Szuromi, Science 264, 1513 (1994)
- D7.** “One-step process converts methane to ethylene in 85% yield”, C&EN June 13 (1994) p. 41
- D8.** “Chemical engineers near ‘holy grail’”, Chemistry and Industry 22, June 20, 1994
- D9.** “Electrocatalysis: Past, present and Future” in J.O’M. Bockris and Z.S. Minevski, Electrochimica Acta 39, 1471-79 (1994), last section, 1478 “NEMCA 1990’s”

H. ΑΝΑΣΚΟΠΗΣΕΙΣ ΒΙΒΛΙΩΝ

- BR1.** “Heterogeneous Catalysis in Industrial Practice, 2nd Edition by C.N. Satterfield McGraw-Hill, NY 1991” C.G. Vayenas, *J. Catalysis* 134, 755-756 (1992).

I. ΚΡΙΤΗΣ ΣΕ ΠΕΡΙΟΔΙΚΑ

Εχω διατελέσει κριτής (reviewer) για τα εξής διεθνή περιοδικά:

Science	AIChE Journal
Journal of Catalysis	I&EC Fundamentals
Journal of Physical Chemistry	The Chemical Engineering Journal
Applied Catalysis A	I&EC Research
Catalysis Rev.-Science and Engineering	Energy and Fuels
Journal of the Electrochemical Society	Computers & Chemical Engineering
Solid State Ionics	Chemical Engineering Communications
Electrochimica Acta	Surface Science
Chemical Engineering Science	Topics in Catalysis
Catalysis Letters	Applied Catalysis B: Environmental
Journal of Applied Electrochemistry	Ionics

K. ΧΡΗΜΑΤΟΔΟΤΟΥΜΕΝΗ ΕΡΕΥΝΑ

1977 - 80	Petroleum Research Fund, “Solid Electrolyte Aided Study of Catalytic Oxidations” <i>Principal Investigator: Costas G. Vayenas</i>	\$ 9,000
1978 - 80	National Science Foundation, “Solid Electrolyte Aided Study of Catalytic Oxidations”. <i>Principal Investigator: Costas G. Vayenas</i>	\$ 83,534
1979 - 80	M.I.T. Energy Lab Seed Money, “High Temperature Fuel Cells” <i>Principal Investigator: Costas G. Vayenas</i>	\$ 20,000
1979 - 80	Union Carbide, “Selective Catalytic Oxidations”	\$ 9,000
1979 - 80	Mobil, “Study of Ethylene Epoxidation on Silver”	\$ 9,000
1980 - 82	Department of Energy, “Cogeneration of Electric Energy and Useful Chemicals in a Fuel Cell” <i>Principal Investigators: Costas G. Vayenas and J. Wei</i>	\$ 150,076
1980 - 83	National Science Foundation, “Solid Electrolyte Aided Study of Catalytic and Electrocatalytic Oxidations” <i>Principal Investigator: Costas G. Vayenas</i> CPE800-9436	\$ 263,380
1981 - 82	H. and C. Dreyfus Teacher Scholar Award	\$ 40,000
1983 - 86	VW Stiftung, F.R. of Germany “Cogeneration of Electric Energy and Useful Chemicals in Fuel Cells” <i>Principal Investigators: C.G. Vayenas, L. Riekert, H.-G. Lintz</i>	90,000 DM
1987 - 90	European Economic Community Non-nuclear Energy Program “Multichannel solid oxide fuel cell reactors” EN3E/167/E	100,000 €
1988 - 92	European Economic Community Non-nuclear Energy Program “Fabrication and Evaluation of Small SOFC reactors” EN3E/D2/407/UK	115,000 €
1988 - 91	VW Stiftung, F.R. of Germany “Cogeneration of Electricity and Chemicals in Solid Electrolyte Cells with Catalytic Electrodes” <i>Principal Investigators: C.G. Vayenas, L. Riekert, H.-G.Lintz</i>	65,000 DM
1990 - 95	European Economic Community JOULE Programme “Fundamental Studies of NonFaradaic Catalysis” <i>Principal Investigators: R. Lambert, C.G. Vayenas</i>	100,000 €
1990 - 94	European Economic Community JOULE Programme “Operational Tests of SOFC Modules and Use of SOFC as Chemical Reactors”	65,000 €

1991- 95	JOULE Programme. European Economic Community “Use of SOFC as chemical reactor: Non-Faradaic Electrochemical Modification of the Catalytic Activity and Selectivity of Partial Oxidation and CO Hydrogenation Catalysts” <i>Principal Investigator: C.G. Vayenas</i>	300.000,00 €
1992- 94	STRIDE Programme. European Economic Community. “Development of improved catalytic converters” (jointly with X.E. Verykios)	385.000,00 €
1992 - 95	CEC JOULE Programme “New SOFC Materials and Technology”	98.000,00 €
1992 - 95	CEC JOULE Programme “Operational Tests of SOFC and use of SOFC as Chemical Reactor”	50.000,00 €
1993 - 95	CEC Human Capital and mobility network: “Impact of surface mobility phenomena on catalytic activity and selectivity”	40.000,00 €
1993 - 95	CEC Human Capital and mobility network: “Intermediate Temperature SOFC”	10.000,00 €
1993 - 95	British Council (Hellenic-British collaboration) “Fundamental Studies in Non-Faradaic Catalysis” (with R.M. Lambert , S. Ladas, S. Kennou and S. Bebelis)	16.000,00 €
1994 -	Electric Power Research Institute (EPRI, U.S.A.) “Non-Faradaic Electrochemical Modification of Catalytic Activity”	\$ 25,000,00
1995 - 98	EPET-II Programme, National Secretariat of Research and Technology - EEC “Optimization, quality control and production of automotive exhaust catalytic converter” (with X.E. Verykios)	605.000,00 €
1995 - 98	EPET II Programme, National Secretariat of Research and Technology - EEC “Increase in the Hellenic Capacity of Recycling Spent Lube Oils” (with D. Theodorou, J. Tsamopoulos, S. Ladas)	604.000,00 €
1995- 98	CEC JOULE Programme “New energy-efficient processes for the partial oxidation of methane to ethylene and to methanol/formaldehyde”, Coordinator Total budget: 1,000,000 ECU	131.758,77 €
1996 -98	PENED «Metal-solid electrolyte catalysts”	29.347,03 €
1996 - 98	PABE: «Study of high durability concrete production with Greek artificial pozolans»	70.432,87 €
1996 - 01	BASF “Agreement field: Examination of the NEMCA-Effect on BASF-Relevant Catalytic Reactions”	112.571,76 €
1997 - 99	W0 60-25 EPRI “Electrochemical Promotion of the Ammonia Synthesis with electrically promoted pellets”	136.273,36 €
1997 - 99	Greek-Italian Cooperation «Electronic Promotion in Heterogeneous Catalysis»	6.156,53 €
1997 - 00	EC BRITE Programme (BRPR-CT97-0460) “Application of NEMCA and DIMSI Principles in Designing Novel DeNO _x catalysts for lean burn engines” (with X. Verykios)	303.376,32 €

1998 - 98	ECIA “Preparation and testing multi-supported three-way catalysts preparation & testing multi-sec”	14.367,55 €
1998 - 99	SCIENTIFIC DESIGN COMPANY “Laboratory expenses for the TPD Analysis”	5.426,47 €
1997 - 00	EU TMR Project FMRX-CT97-0130 “Synthesis, fabrication & characterization of alternative anodes for direct methane oxidation in solid oxide fuel cells”	169.900,11 €
1998 - 01	EPET 127-EKBAN «Development of integrated system of catalytic ceramic filters, membranes and sensors for the reduction and control of soot particulates from mobile and stationary sources»	206.016,14 €
1999 - 03	EU Growth Project G5RD-CT 1999-00154 “Catalyst Deactivation”	284.664,15 €
2000 - 03	EU TMR Project HPRN-CT-2000-00042 “Investigation of high temperature solid proton conductors of relevance to fuel processing & energy conversion applications”	161.943,00 €
2002 – 05	EU Growth Project G5RD-CT-2002-00710 “NO _x Abatement systems for next-generation environmental technologies”	369.639,00 €
2002 – 05	PENED “Metal-electrolyte catalysts for automotive exhaust gas treatment”	175.000,00 €
2003 - 04	TOYOTA «Catalysis and Electrocatalysis”	120.000,00 €
2004 - 07	PF6-2003-NEST-A/2400 “Electrocatalytic Gas-phase conversion of CO ₂ in confined catalysts”	215.604,00 €
2005 - 06	EC AST4-CT-2005-516126 “Fuel Cell Application in a New Configured Aircraft”	94,000,00 €
2005 - 07	«04 ΑΚΜΩΝ 61: Σχεδιασμός και μελέτη ετερογενών υλικών για εφαρμογές σε τεχνολογίες ενέργειας και περιβάλλοντος»	245,000,00 €
2007-08	«05 NON EU 268: Application of Electrochemical Promotion in novel monolithic reactors»	14.000,00 €
2007-09	MSCF-CT-2006-046201: “Marie Curie Conferences and Training Courses”	28.000,00 €
2008-09	ARAMCO: “Research Agreement with University of Patras”	133.000,00 €
2008-10	PROTOTECH AS: “High Temperature Fuel Cells”	75.000,00 €
2009-11	CERTH\CPERI: “Regenerative PEM Fuel Cells”	80.000,00 €
2010-13	GSRT: “Nano-structured electrodes for water electrolysis in high temperature Polymer Electrolyte Membrane electrolyzers”	130.000,00 €
2010-13	GSRT: “Electrochemically promoted CO ₂ hydrogenation for the production of clean fuel cells”	111.200,00 €
2012-15	ΓΓΕΤ: ΑΡΙΣΤΕΙΑ - “ Ηλεκτροχημική ενίσχυση της κατάλυσης για την υδρογόνωση του CO ₂ σε χρήσιμα καύσιμα και χημικά προϊόντα”	550.000,00 €

L. ΠΡΟΣΚΕΚΛΗΜΕΝΕΣ ΔΙΑΛΕΞΕΙΣ ΣΕ ΠΑΝΕΠΙΣΤΗΜΙΑ, ΒΙΟΜΗΧΑΝΙΑ ΚΑΙ ΕΡΕΥΝΗΤΙΚΑ ΚΕΝΤΡΑ

1. February 1976, "The Oxidation of SO₂ on Noble Metals" Department of Chemical Engineering, University of California at Davis.
2. February 1976, "The Oxidation of SO₂ on Noble Metals" Department of Chemical Engineering, California Institute of Technology.
3. February 1976, "Electrochemical and Kinetic Study of SO₂ Oxidation on Noble Metals" Department of Chemical Engineering, Stanford University.
4. March 1976, "Electrochemical and Kinetic Study of SO₂ Oxidation on Platinum", Department of Chemical Engineering, Syracuse University.
5. March 1976, "Electrochemical and Kinetic Study of SO₂ Oxidation on Noble Metals", Department of Engineering and Applied Science, Yale University.
6. February 1977, "Electrochemical and Kinetic Study of SO₂ Oxidation on Noble Metals", Department of Chemical Engineering, M.I.T.
7. October 1978, "A New Approach to Oxidation Catalysis: Solid Electrolyte Potentiometry and Electrocatalysis", Department of Chemical Engineering, M.I.T.
8. November 1978, "A New Approach to Oxidation Catalysis: Solid Electrolyte Potentiometry and Electrocatalysis", ILP Symposium on Catalysis, M.I.T.
9. December 1978, "Solid Electrolyte Potentiometry and Electrocatalysis", Monsanto, St. Louis.
10. December 1979, "Cogeneration of Electrical Energy and Nitric Oxide", GM Laboratories, Warren, Michigan.
11. April 1980, "Ammonia High Temperature Fuel Cell", Department of Chemical Engineering, Tufts University.
12. April 1980, "Ammonia High Temperature Fuel Cell", Celanese Research Center, Summit, N.J.
13. July 1980, "Limit Cycle Phenomena During Ethylene and Ammonia Oxidation Over Platinum" Gordon Conference on Chemistry at Interfaces, Meriden, New Hampshire.
14. August 1980, "Vapor Phase Electrocatalytic Ethylene Epoxidation", E.I. DuPont de Nemours, Wilmington, Delaware.
15. October 1980, "Fuel Cell Cogeneration of Electricity and Useful Chemicals", Department of Engineering and Applied Science, Yale University.
16. October 1980, "Fuel Cell Cogeneration of Electricity and Useful Chemicals", Celanese Co., Corpus Christi.
17. October 1980, "Fuel Cell Cogeneration of Electricity and Useful Chemicals", Department of Chemical Engineering, University of Houston.
18. October 1980, "Fuel Cell Cogeneration of Electricity and Useful Chemicals", Exxon Research, Linden, N.J.
19. October 1980, "Limit Cycle Phenomena During Ethylene oxidation on Pt", Department of Chemistry, Brandeis University.
20. April 1981, "Cogeneration of Electricity and Chemicals in High Temperature Electrocatalytic Reactors", W.R. Grace Research Center.
21. September 1981, "Cogeneration of Electricity and Chemicals" Shell Res. Laboratories, Amsterdam, Holland.
22. September 1981, "Solid Electrolytes and Catalysis", Institut Francais du Petrol, Paris, France.
23. September 1981, "Solid Electrolytes and Catalysis", Monte-Edison Research Center, Novarra, Italy.
24. February 1982, "Solid Electrolytes and Catalysis", National Technical University Athens.
25. June 1983, "Solid Electrolyte-Aided Studies of Catalytic Reactions", University of Karlsruhe, F.R. Germany.
26. June 1984, "Optimal Catalyst Activity Distribution in Pellets", W.R. Grace Research, Washington, DC.
27. September 1984, "Solid Electrolytes and Catalysis", University of Thessaloniki, Greece.
28. December 1985, "Solid Electrolytes and Catalysis", Democritus Research Center, Athens, Greece.

29. June 1986, "Catalytic Phenomena in Solid Electrolyte Cells", Imperial College, London, UK.
30. June 1986, "Cogeneration of Electrical Power and Chemicals in Solid Electrolyte Cells" British Gas Research Division, London, UK.
31. September 1987, "Catalytic Phenomena in Solid Electrolyte Cells", University of Twente, Holland.
32. March 1988, "Catalytic and Electrocatalytic Reactions in Solid Oxide Fuel Cells", T.N.O., Zeist, Holland.
33. March 1988 "Solid Electrolytes and Catalysis", University of Liege, Belgium.
34. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", W.R. Grace, Columbia, Maryland, USA.
35. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", Princeton University, Princeton, USA.
36. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", Yale University, 1988 Dodge Lecture, New Haven, USA.
37. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", ARCO, Philadelphia, USA.
38. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", University of Pennsylvania, Philadelphia, USA.
39. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", University of Rochester, Rochester, USA.
40. December 1988, "Non-Faradaic Electrochemical Modification of Catalytic Activity", MIT, Cambridge, USA.
41. February 1990, "Solid Electrolytes and Catalysis", École Polytechnique Federale de Lausanne, Switzerland.
42. February 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity", École Polytechnique Federale de Lausanne, Switzerland.
43. February 1990, "On the origin of the NEMCA effect and on the dependence of catalytic rates on catalyst work function", École Polytechnique Federale de Lausanne, Switzerland.
44. March 1990, "Ethylene Epoxidation on Silver", École Polytechnique Federale de Lausanne, Switzerland.
45. March 1990, "Chemical Cogeneration", École Polytechnique Federale de Lausanne, Switzerland.
46. March 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity", Université de Poitiers, France.
47. September 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Center for Industrial Research (SI), Oslo, Norway.
48. October 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity. Oxidation and Oxidative Coupling of Methane", RISØ, Roskilde, Denmark.
49. October 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity", Chemetal-Lurgi, Frankfurt, Germany.
50. April, 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity", KFA Research Center, Julich, Germany
51. April, 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity", University of Hannover, Germany
52. June 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity", University of Tübingen, Germany
53. September 1991, "Promotion effects in Catalysis: Dependence of Catalytic Rates on Catalyst Work Function", W.R. Grace Research, Washington DC, USA
54. September 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Exxon Research, Annandale, NJ, USA
55. October 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" City College, City University of New York, USA
56. October 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" New England Catalysis Society, Worcester, Mass., USA

57. November 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Brookhaven National Laboratory, Long Island, USA
58. November 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Tufts University, Boston, USA
59. December 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Yale University, New Haven, USA
60. March 1992, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Princeton University, USA
61. March 1992, "Non-Faradaic Electrochemical Modification of Catalytic Activity" University of Pennsylvania, USA
62. March 1992, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Rohm & Haas, Pennsylvania, USA
63. March 1992, "Non-Faradaic Electrochemical Modification of Catalytic Activity" MIT, Cambridge, Ma, USA
64. March 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" Fritz Haber Institute, Berlin, Germany
65. March 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" LURGI GmbH, Frankfurt, Germany
66. April 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" University of Milano, Italy
67. December 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" University of Thessaloniki, Greece
68. May 1994, "Non-Faradaic Electrochemical Modification of Catalytic Activity" National Research Foundation (EIE), Athens, Greece
69. May 1994, "Non-Faradaic Electrochemical Modification of Catalytic Activity" EPRI, Palo Alto, Ca, USA
70. May 1995, "Non-Faradaic Electrochemical Modification of Catalytic Activity", BASF, Ludwigshafen, Germany
71. June 1995, "Electrochemical Activation of Catalysis", Weizmann Institute of Science, Rehovot, Israel
72. June 1995, "Electrochemical Activation of Catalysis", Technion, Haifa, Israel
73. June 1995, "Electrochemical Activation of Catalysis", University of Crete, Greece
74. August 1995, "Electrochemical Activation of Catalysis", Dalian Institute of Chemical Physics, Dalian, China
75. May 1996, "Electrochemical Activation of Catalysis", University of Ulm, Germany
76. October 1996, "Electrochemical Activation of Catalysis", KFA Research Center, Jülich, Germany
77. December 1996, "Electrochemical Activation of Catalysis", Electricité de France (EDF), Paris, France
78. February 1997, "Electrochemical Activation of Catalysis" Société Vandoise des Sciences Naturelles, Lausanne, Switzerland
79. March 1997, "Electrochemical Activation of Catalysis", Democritos Research Center, Athens
80. March 1997, "The NEMCA effect" BASF, Ludwigshafen, Germany
81. December 1997, "The NEMCA effect", Lurgi, Frankfurt, Germany
82. December 1997, "The NEMCA effect", BASF, Ludwigshafen, Germany
83. March 1998, "Electrons and Catalysis", Physics Department, University of Thessaloniki
84. November 1998, "Electrons and Catalysis", University of Thessaly
85. June 1999, "Electrochemical Promotion of Catalysis", EPFL, Lausanne
86. January 2000, "Electrochemical Promotion of Catalysis", BASF, Ludwigshafen, Germany
87. March 2000, "Electropromotion with proton conductors", Schloss Ringberg, Germany
88. March 2000, "Electrochemical Promotion of Catalysis", New England-New York, Catalysis Club, Bethlehem, PA, USA
89. March 2000, "Electrochemical Promotion of Catalysis", Engelhard, Philadelphia, USA

90. March 2000, “Electrochemical Promotion of Catalysis”, Atofina, King of Prussia, PA, USA
91. June 2000, “Electrochemical Promotion of Catalysis”, Technion, Haifa, Israel
92. June 2000, “Electrochemical Promotion of Catalysis”, Weizmann Institute, Rehovot, Israel
93. November 2000, “Electrochemical Promotion of Catalysis”, Twente University, Holland
94. March 2001, “Electrochemical Promotion of Catalysis”, Bosch, Stuttgart, Germany
95. May 2001, “Electrochemical Promotion of Catalysis”, NSF-EPRI, Washington DC, USA
96. September 2001, “Electrochemical Promotion of Catalysis” Ulm University, Ulm, Germany
97. November 2003, “Electrochemical Promotion of Catalysis” DuPont, Wilmington, DE, USA
98. November 2003, “SOFC and PEM fuel cells” Atofina, King of Prussia, USA
99. November 2003, “Electrochemical Promotion of Catalysis” UC Berkeley, Chemistry Dept. USA
100. February 2004, “SOFC and PEM fuel Cells” University of Thessaly
101. February 2005, “Electrochemical Promotion”, Université de Nancy, France
102. April 2006, “Proton interactions in chemical, electrochemical and physical systems”, EPFL, Lausanne
103. March 2006, “The double layer approach to Promotion, Electrochemical Promotion and Metal-Support Interactions” (Invited lecture), Université de Lyon and CNRS, France
104. March 2006, “The search for the origin of Electrochemical Promotion” (Invited lecture), Université de Lyon and CNRS, France
105. March 2006, “The Interface of Catalysis and Electrochemistry: Electrochemical promotion of Catalysis” (Invited lecture), Université de Lyon and CNRS, France
106. June 2007, “Electrochemical promotion of Catalysis”, Université de Lyon and CNRS, France
107. June 2007, “Electrochemical Promotion of Catalysis”, St. Gobain Research Center, France
108. May 2008, “Non-Faradaic electrochemical activation of catalysis: Phenomenology, theory and applications”, (Invited lecture), EPFL
109. October 2010, “Promotion, Electrochemical Promotion and Metal-Support Interactions”, Fritz-Haber Institute der Max-Planck Gesellschaft, (Invited Lecture), Berlin, Germany.
110. April 2015, “Bohr-type mathematical modelling of mass generation via confinement of relativistic particles”. (Invited lecture), Princeton University, USA
111. July 2015, “Bridging Catalysis and Electrochemistry”, (Invited lecture) 3rd Hellenic forum for Science Technology and Innovation, National Center for Scientific Research “Demokritos”, Athens, Greece

M. PLENARY, KEYNOTE KAI ΠΡΟΣΚΕΚΑΗΜΕΝΕΣ ΔΙΑΛΕΞΕΙΣ ΣΕ ΔΙΕΘΝΗ ΣΥΝΕΔΡΙΑ

1. July 1980, "Limit Cycle Phenomena during Ethylene and Ammonia Oxidation over Pt" Invited Lecture, Gordon Conference on Chemistry at Interfaces, Meriden, New Hampshire
2. September 1987, "Catalytic and Electrocatalytic Phenomena in Solid Electrolyte Cells", Plenary Lecture, 6th International Conference on Solid State Ionics, Garmisch-Partenkirchen, F.R. Germany, Sept. 6-11, 1987.
3. September 1987, "Faradaic and NonFaradaic electrocatalysis in Solid Electrolyte Cells", Invited Keynote Lecture, 38th Meeting of the International Society of Electrochemistry (ISE). Maastricht, Holland Sept. 14-18, 1987.
4. November 1989, "Non-Faradaic Electrochemical Modification of Catalytic Activity in Zirconia Cells" (plenary lecture given by S. Seimanides), American Ceramic Association National Meeting, Anaheim, USA.
5. April 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity", (invited lecture) Rideal Congress on Catalysis, Cambridge, England.
6. November 1990, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (invited lecture) Shell Conference on Oxidation Catalysis, Wolfheze, Holland
7. April 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (plenary lecture) 3d Intl. Symposium on Systems with Fast Ionic Transport, Holzgau, Germany
8. June 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (invited lecture), Gordon Conference on Catalysis, New Hampshire, USA
9. September 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (plenary lecture), 7th Intl. Symposium on Heterogeneous Catalysis, Varna, Bulgaria
10. October 1991, "Non-Faradaic Electrochemical Modification of Catalytic Activity in Solid Electrolyte cells" (keynote lecture), 8th International Conference on Solid State Ionics, Lake Louise, Canada
11. July 1992, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Invited Lecture) 1992, International Symposium on C₁ Reactions, Vienna, Austria
12. November 1992, "Electrochemical Activation of Catalyzed Reactions" (Invited Lecture) NATO Advanced Research Workshop "Elementary reaction steps in Heterogeneous Catalysis", Bedoin, France.
13. May 1993, "Electrochemical Activation of Catalyzed Reactions" (Invited Lecture), 13th European Chemical Reaction Engineering Conference (CCRE 13), Windsor, England
14. July 1993, "In situ reversible promotion of Catalysts using ion-conducting metal oxides" (Invited lecture) 2nd Schwab Conference, Berlin, Germany
15. August 1993, "Ion spillover as the origin of the NEMCA effect" (Invited lecture) 3d International Conference on spillover, Kyoto, Japan
16. September 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity in solid electrolyte cells" (Plenary lecture) 14th International Symposium on Materials Science, Riso, Denmark
17. September 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Keynote Lecture) 9th International Conference on Solid State Ionics, The Hague, Netherlands
18. September 1993, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Keynote lecture) International Symposium on Electrocatalysis, Ferrara, Italy
19. May 1994, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Invited Lecture) 185th Electrochemical Society Meeting, San Francisco, USA
20. August 1994, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Keynote Lecture) 45th Intl. Society of Electrochemistry (ISE) Meeting, Oporto, Portugal
21. May 1995, "In situ controlled Promotion of catalyst surfaces via Solid Electrolytes" (Keynote Lecture) 94th Annual Meeting of the Deutsche Bunsen-Gesellschaft für Physikalische Chemie, Bremen, Germany
22. June 1995, "Non-faradaic Electrochemical Modification of Catalytic Activity" (Plenary Lecture) 13th International Symposium on Electrochemistry, Vranka Bania, Yugoslavia

23. September 1995, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Invited talk) 46th Annual International Society of Electrochemistry (ISE) Conference, Xiamen, China
24. November 1995, "Non-Faradaic Electrochemical Modification of Catalytic Activity" (Invited Lecture given by I.V. Yentekakis) 186th Electrochemical Society Meeting, Chicago, U.S.A.
25. March 1996, "Electrochemical Activation of Catalysis" (Invited Lecture) European Workshop on the relation between Solid State and Aqueous Electrochemistry Schloss Ringeberg, Germany
26. September 1996, "Non-Faradaic Electrochemical Modification of Catalytic Activity using solid electrolytes" 3rd Euroconference on Solid State Ionics, (Invited Lecture), Sardinia, Italy
27. October 1996, "Electrochemical Activation of Catalysis" (Award Lecture) 190th ECS Meeting, San Antonio, USA
28. October 1996, "Electrochemical Activation of Catalysis" (Plenary Lecture) GDCh Angewandte Electrochemie, Monheim, Germany
29. July 1997, "The modern problems of gas phase electrocatalysis and electrochemical promotion" (Plenary Lecture) 2nd memorial G.K. Boreskov Conference, Novosibirsk, Russia
30. July 1997, "Thermodynamic and kinetic considerations of Solid Gas Interactions, Catalysis, Electrocatalysis, Gas reforming" (3 invited lectures) International School of materials Science and Technology, Erice, Italy
31. September 1997, "Direct STM, XPS and TPD observation of spillover phenomena over mm distances on metal catalyst films interfaced with solid electrolytes (plenary lecture) 4th Intl. Conference on Spillover, Dalian, China
32. September 1997, "Electrochemical activation of complete and partial oxidation reactions" (plenary lecture) 2nd World Congress on Oxidation Catalysis, San Diego, U.S.A.
33. September 1999, "Electrochemical promotion of environmentally important reactions" 50th International Society of Electrochemistry (ISE) Meeting (Keynote lecture), Pavia, Italy
34. September 1999, "Electrochemical Promotion: Origin and Applications" 3rd International Conference on Electrocatalysis (Keynote lecture), Portoroz, Slovenia
35. October 1999, "Electrochemical Promotion in Catalysis" Euroconference on Fast Oxidation Catalysis, (Keynote lecture), Lelystadt, Holland
36. September 2002, "Electrochemical Promotion in Catalysis", 53rd International Conference of ISE, (Keynote Lecture), Düsseldorf, Germany
37. September 2003, "Electrochemical Promotion in Catalysis", 54th International Conference of ISE, (Keynote Lecture), San Pedro, Brazil
38. May 2004, "A new triode fuel cell", 7th ISSFIT, (Invited talk), Slovenia
39. May 2004, "Thermodynamics of Adsorbed Species and the Double Layer approach to catalysis", PPEPPD-2004, (Invited talk), Salt Lake City, USA
40. September, 2004, "Solid State Electrocatalysis and Electrochemical Promotion: From Fundamentals to Monolithic Electropromoted Reactors", 55th ISE, (Keynote Lecture), Thessaloniki, Greece.
41. September 2004, "Electrochemical Promotion of Catalysis", (Plenary Lecture), 55th International Conference of ISE, Thessaloniki, Greece
42. July, 2005, "Solid Electrolyte Electrocatalysis and Electrochemical Promotion", 3rd Gerisher Symposium on Electrocatalysis: Theory and Experiment, (Invited talk), Berlin
43. May 2006, "STM observation of the origin of electrochemical promotion on metal catalyst-electrodes interfaced with YSZ and β'' -Al₂O₃", International Symposium on Surface Imaging/Spectroscopy at the Solid/Liquid Interface, (Invited talk), Krakow, Poland
44. August, 2006, "First principles computation of the conductivity of hydrated Nafion membranes", 57th Annual Meeting of the ISE, (Invited talk), Edinburgh, UK
45. September 2006, "Catalysis and electrocatalysis in SOFCs Internal reforming SOFCs – chemical cogeneration", 3rd Summer school on Solid Oxide Fuel Cell Technology, (Invited talk), Limnos, Greece

46. June 2007, "Proton Transport in Electrocatalytic, Catalytic and Physical Environments", Symposium on Advances in Selective Heterogeneous Oxidation Catalysis, (Invited lecture), Kloster Irsee, Germany
47. August 2007, "Electrochemical and Classical Promotion: Common features and Rules", VIII Europacat, (Keynote lecture), Turku, Finland
48. September 2007, "Fuel cells and our energy future", 1st Polish forum on Fuel Cells and Hydrogen, (Plenary lecture), Zakopane, Poland
49. September 2007, "Isotopic Oxygen investigation of the origin of Metal-Support Interactions and Electrochemical Promotion using supported metal catalysts", 58th ISE Meeting, (Keynote lecture), Banff, Canada
50. October, 2007, "The quest for the origin of Electrochemical Promotion", 1st International Conference on the Origin of Electrochemical Promotion of Catalysis (OREPOC), (Plenary Lecture), Thessaloniki, Greece
51. June, 2008, "Electrochemical and chemical promotion of catalysis", 5th University of California Symposium on Surface Science and its Applications, (Invited talk), Santa Barbara, U.S.A.
52. August 2008, "Electrochemically promoted monolithic reactors", 8th European Symposium on Electrochemical Engineering (ESEE), CHISA Congress, (Keynote Lecture), Prague, Czech Republic.
53. September 2008, "Electrochemical promotion of catalytic reactions with sputtered metal catalyst-electrode films in a monolithic electropromoted reactor", 59th Annual Meeting of the International Society of Electrochemistry, (Invited talk), Seville, Spain
54. July 2009, "Electrocatalysis and Electrochemical Promotion with Oxygen Ion and Proton Conductors", SSI-17, (Plenary lecture), Toronto, Canada.
55. October 2009, "Mobile ions as promoters on catalyst surfaces" International Bunsen Discussion Meeting, (Keynote Lecture), Muenster, Germany.
56. June 2010, "Electrochemical Promotion of Selective Oxidations: Some Examples", Irsee V Conference, (Invited Talk), Irsee, Germany.
57. June 2010, "Electrochemical Promotion of Catalysis", RSE-SEE, (Invited Talk), Beograd, Serbia.
58. August 2010, "Electrochemical Promotion of Catalysis", ACS, 240th National Meeting and Exposition Symposium, (Invited Talk) Boston, USA.
59. September 2010, "On the Negative Impedance Region and Proton Transfer Mechanism in Fully Hydrated Nafion Membranes", The 61st Annual Meeting of the International Society of Electrochemistry, (Invited Talk), Nice, France.
60. June 2011, "Chemical Cogeneration and Electrochemical Promotion of Catalysis", Summer School: "Energy and Materials from the Sun", Rolduc Abbey, The Netherlands.
61. July 2011, "The Use of Anionic and Cationic Conductors for the Electrochemical Promotion of Catalysis", The 18th International Conference on Solid State Ionics, (Plenary lecture), Warszawa, Poland.
62. October 2011, "Perfluorinated membranes & Proton conduction mechanism". (Invited talk) Summer school: Electrolytes for PEM Water electrolysis,
63. August 2012, "Triode operation of CO poisoned PEM fuel cells". (Invited talk) 63rd Annual Meeting of the ISE, Prague, Czech.
64. October 2012, "Rules of classical and electrochemical promotion". (Plenary lecture) 12th Catalysis symposium, Chania, Greece.
65. April 2013, "Modeling of the structure of protons and neutrons". Academy of Athens, Greece
66. April 2013, "Electrochemical promotion with Oxygen Ion and Proton conductors". (Keynote Lecture) RGJ-PhD Congress XIV, Pattaya, Thailand.
67. July 2013, "Rules and modeling of classical and electrochemical promotion". (Invited lecture) Irsee IV Conference, Germany.
68. September 2013, "Mathematical modeling of mass generation via confinement of relativistic particles", IC-MSQUARE, Prague, Czech.
69. September 2013, "Electrochemical promotion of CO₂ hydrogenation on Ru films deposited on O²⁻ and Na⁺ conductors". (Invited lecture) IC³, Lyon, France.

70. October 2013, "Triode Fuel Cells". (Invited Lecture) Smart Energy convention & storage IV polish forum. Krynica, Poland.
71. July 2014, "A Bohr type model of a composite particle using gravity as the attractive force" (Invited Lecture) 4th Ph.D. School on "Mathematical Modeling of Complex Systems", Athens, Greece.
72. August 2014, "Microscopic black hole stabilization via the uncertainty principle". International Conference on Mathematical Modeling in Physical Sciences, Madrid, Spain.
73. September 2014, "Electrochemical Promotion of Catalysis: Novel Catalyst – Electrodes and reactors", (Keynote Lecture) 65th Annual Meeting of the ISE, Lausanne, Switzerland.
74. October 2014, "Enhanced Oxygen Reduction using Triode Fuel Cells". (Invited lecture) 226th Meeting of the ECS, Cancun, Mexico.
75. October 2014, "Electrochemical Promotion of Catalysis: Novel Catalyst-Electrodes and reactors", (Keynote lecture) 10th European Symposium on Electrochemical Engineering, Sardinia, Italy.
76. April 2015, "Rules of Chemical and Electrochemical Promotion and their application for the conversion of CO₂ to hydrocarbons". Greg Botsaris Memorial Symposium. Boston, USA.
77. August 2017, "Gravitationally confined relativistic neutrinos", 18th Lomonosov Conference on Elementary Particle Physics, (Keynote Lecture), Moskow, Russia.
78. September 2017, "Rules of Promotion in Oxidation Catalysis". 8th World Congress on Oxidation Catalysis, (Keynote Lecture), Krakow, Poland.

ΕΠΙΒΛΕΨΗ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΑΣΤΩΝ

Διδακτορικά Διπλώματα

1. James Michaels, Sc.D. M.I.T. (1983) (with J. Wei), Associate Professor, University of California, Berkeley, Mobil, NJ
2. Μιχάλης Στουκίδης, Sc.D.M.I.T. (1982), Associate Professor Tufts University, Professor, University of Thessaloniki
3. Mark Manton Sc.D. MIT (1986) (with J. Wei), Shell Laboratories, Amsterdam
4. Ι. Γεντεκάκης, Ph.D. (1987) Postdoctoral Fellow, Princeton University, Καθηγητής, Πολυτεχνείο Κρήτης
5. Σ. Νεοφυτίδης, Ph.D. (1988), Διευθυντής Ερευνών, ΙΤΕ/ΕΙΧΗΜΥΘ
6. Σ. Μπεμπέλης, PhD (1989), Καθηγητής, Πανεπιστήμιο Πατρών
7. Ε. Παπαδάκης, PhD (1990) (σε συνεργασία με κ. Μ. Φαρδή), Αναπληρωτής Καθηγητής, Πανεπιστήμιο Ιωαννίνων
8. Ε. Κολυφότης, PhD (1993), Ερευνητής, ΑΓΕΤ Ηρακλής, Αθήνα
9. Δ. Σπαρτινός, PhD (1993), Λέκτορας, Πανεπιστήμιο Πατρών
10. Π. Τσιακάρας, PhD (1993), Καθηγητής, Πανεπιστήμιο Θεσσαλίας
11. Α. Ιωαννίδης, PhD (1993)
12. Χ. Καραβασίλης, PhD (1994), Ερευνητής, Lube Processing Co. (LPC), Athens
13. Ε. Καρασαλή, PhD (1994), Ερευνήτρια Β', Μπενάκειο Φυτοπαθολογικό Ινστιτούτο
14. Yi Jiang PhD (1994), Associate Professor, Dalian Institute of Chemical Physics, Dalian, China
15. Κ. Πλιάγκος, PhD (1995)
16. Α. Καλογιάννης, PhD (1995)
17. Μ. Μακρή, PhD (1999)
18. Κ. Γιόκαρη, PhD (2000)
19. Δ. Τσιπλακίδης, PhD (2001), Αναπληρωτής Καθηγητής, ΑΠΘ
20. Ι. Μπάφας, PhD (2003)
21. Κ. Ράπτης, PhD (2003)
22. Θ. Μπάδας, PhD (2003)
23. Α. Κατσαούνης, PhD (2004), Αναπληρωτής Καθηγητής, Πανεπιστήμιο Πατρών
24. Α. Φραντζής, PhD (2004)
25. Σ. Μπαλωμένου, PhD (2005), Συνεργαζόμενη Ερευνήτρια ΙΤΧΗΔ/ΕΚΕΤΑ
26. Ι. Κωνσταντίνου, PhD (2005)
27. Α. Γιαννίκος, PhD (2006)
28. Δ. Άρχοντα, PhD (2007)
29. Κ. Κουτσοδόντης, PhD (2008)
30. Φ. Σαπουντζή, PhD (2009)
31. Σ. Σουεντίε, PhD (2009)
32. Δ. Πρεσβύτες, PhD (2009)
33. Μ. Τσαμπάς, PhD (2010)
34. Β. Παπαϊωάννου, PhD (2010)
35. Δ. Θελερίτης, PhD (2015)
36. Ι. Καλαϊντζίδου, PhD (2017)
37. Μ. Μακρή, PhD (2017)
38. Δ. Γρηγορίου, PhD (2018)
39. Ε. Μαρτίνο, PhD expected
40. Δ. Ζαγοραΐος, PhD expected

Μεταπτυχιακά Διπλώματα

1. BOWEI Lee, M.S., M.I.T. (1979)
2. Roger Farr, M.S., M.I.T. (1980)
3. James Mulready, M.S., M.I.T. (1980)
4. Catherine Teague-Sigal, M.S., M.I.T. (1981)
5. Pablo Debenedetti, M.S., M.I.T. (1982) Professor, Princeton University, Member of the National Academy of Engineering, USA.

Postdoctoral Fellows

1. Panagiotis Petrolekas, (1999) Assistant Professor, Dept. of Environmental Engineering, Democritus University of Thrace
2. Jiang Yi (1994-96), Associate Professor, Dalian University
3. Xingang Li (2005-2006), Associate Professor, School of Chemical Engineering and Technology, Tianjin University, China