

Curriculum Vitae

Georgios Kyriakou

Professor

Department of Chemical Engineering

University of Patras

PERSONAL INFORMATION

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Date of Birth: 07 April 1978
Nationalities: Greek, British

EDUCATION

BSc in Chemistry (2000), University of Hull, United Kingdom, First Class Honours Degree.

PhD in Physical Chemistry (2004), University of Cambridge, United Kingdom. Thesis title: Catalytic studies on Cu-based model and dispersed catalysts. Supervisor: Professor Richard Lambert

PGCert - Postgraduate Certificate in Academic Practice, University of Hull (2014)

EMPLOYMENT HISTORY

October 2022 - current: Professor, Department of Chemical Engineering, University of Patras, Caratheodory 1, GR 265 04, Patras, Greece.

February 2019 – October 2022: Associate Professor, Department of Chemical Engineering, University of Patras, Caratheodory 1, GR 265 04, Patras, Greece.

August 2018 – February 2019: Reader in Nanomaterials, European Bioenergy Research Institute and Chemical Engineering and Applied Chemistry, Aston University, B20 2RB, Birmingham, United Kingdom.

September 2015 – August 2018: Senior Lecturer in Nanomaterials, European Bioenergy Research Institute and Chemical Engineering and Applied Chemistry, Aston University, B20 2RB, Birmingham, United Kingdom.

August 2012 – August 2015: Lecturer in Inorganic Nanomaterials. Department of Chemistry, University of Hull, Hull, HU6 7RX, United Kingdom.

January 2011 – July 2012: Research Assistant Professor. Research groups of Professor Charles Sykes and Professor Maria Flytzani-Stephanopoulos. Department of Chemistry, Pearson Chemistry Laboratory, 62 Talbot Avenue, Tufts University, Medford, Massachusetts, 02155, USA.

September 2008 – December 2010: Post Doctoral Research Associate. Department of Chemistry, University of Cambridge, Lensfield Road, CB2 1EW, United Kingdom. Sponsor: Engineering and Physical Sciences Research Council.

6 November 2007 - 6 May 2008: Military services – Greece.

February 2004 – September 2007: Post Doctoral Research Associate. Department of Chemistry, University of Cambridge, Lensfield Road, CB2 1EW, United Kingdom. Sponsor: BOC Edwards.

SCIENTIFIC COLLABORATIONS AS VISITING SCHOLAR

- Visiting Professor, Department of Chemical Engineering and Applied Chemistry, Aston University, Birmingham, United Kingdom (04/2019 – 04/2023)
- Visiting Scientist, Materials Science Institute, CSIC-University of Seville, Avda. Américo Vespucio 49, 41092 Seville, Spain (09/2010 – 12/2010)

FUNDING / AWARDS

1. 2000-2003 Engineering and Physical Sciences Research Council PhD Scholarship
2. 2001-2003 Cambridge European Trust award
3. 2001-2003 King's College Cambridge Scholarship
4. 2004-2007 BOC Edwards Industrial Post Doctoral research funding
5. 2011-2012 Tufts Collaborates Seed Grant (PI) - \$ 50,000
6. 2012-2015 National Science foundation funding, Atomic-scale alloys as energy- and cost-efficient catalysts for fuels and chemicals production - Award no: CBET-1159882 (GK Co-I) – \$ 349,999 (PI- Professor Maria Flytzani-Stephanopoulos, Co-I Professor Charles Sykes).
7. 2013-2016 Hull University Internal PhD Studentship (PI) - £ 42,000.
8. 2014 -2015 Royal Society Starting grant “Heterogeneously catalyzed hydrogenations for bio-based energy and fine chemicals” (PI)- £14,994.
9. 2014 Royal Society of Chemistry Small research grants: International scholarly visit by a member to a research institution (PI) £1500.
10. 2014 – 2017 EPSRC Starting Grant EP/M005186/1: Highly selective active sites in heterogeneous catalysis; (PI) £80,153
11. 2015-2017: EPSRC Starting Grant EP/M005186/2: Highly selective active sites in heterogeneous catalysis; (PI) £36,474
12. 2017-2019: BBSRC Cascade processes for integrated bio-refining of agricultural waste in India and Vietnam (Co-I) £607,148.
13. 2017-2019 EPSRC, Ionic Liquid Biorefining of Lignocellulose to Sustainable Polymers, (GK Co-I, Tom Welton-PI) 2,524,593.
14. 2019-2022: C. Caratheodori program – Research committee university of Patras (PI) €30,000.
15. 2020-2023: 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 2EDK-00955: Eco-Bio-H₂-FCs (GK-CoI) - €1.000.000,00
16. 2005 – 2019: Participated 5 times as a PI (Aston University) and 8 times as a Co-I in synchrotron funded projects at Diamond (UK), Elettra (Italy), ESRF (France).
 - 14/12/2018 (SP19850-1) Ultra dispersed Cu nanoparticles for the hydrogenation of biomass platform chemicals. UK Catalysis Hub: (BAG), Diamond Light Source B18 (GK-PI).
 - 29/11/2017 (SI18173-1) NAP XPS investigation of furfural hydrogenation over Pt(111) Diamond, B07-C, (GK-PI).
 - 17/02/2016 (SI12659-1) NAP XPS investigation of furfural hydrogenation over Pt(111) Diamond, I09-2 (GK-PI)
 - 12/02/2016 (SP12542-1) Structure, electronic properties and reactivity of well defined Au/Pd and Ag/Pd and nanoparticle catalysts for the selective catalytic reduction of NO_x by H₂ in the presence of oxygen. Diamond, B18(GK-PI)
 - 13/11/2014 (SP9577-2) Gold-based bimetallic catalysts for the selective reduction of NO with CO and propene. Diamond Light Source, B18 (GK-PI)
 - 25/09/2013 (CH-3947) Gold based Bimetallics: Low-Cost Catalysts for selective oxidations. ESRF. XAS (GK-CoI).
 - 05/07/2013 (SP8688-1) Sustainable chemicals production: elucidating the active site and role of Na promotion in Au /hydrotalcite catalysed HMF selective oxidation. Diamond Light Source, B18 (GK-CoI).

- 22/04/2013 (20125028) New directions in organic synthesis: mechanism and selectivity in the silver-catalyzed Sonogashira cross-coupling of chlorobenzene and phenylacetylene Elettra, SUPERESCA, (GK-CoI).
- 01/03/2013 (20125104) Sustainable chemicals production: elucidating the active site and role of Na promotion in Au /hydrotalcite catalysed HMF selective oxidation. Elettra XAFS, (GK-CoI).
- 24/04/2009 (20085084) New directions in the catalytic chemistry of gold: mechanism of Sonogashira coupling for the formation of carbon-carbon bonds. Elettra, SUPERESCA, (GK-CoI).
- 07/08/2007 (2007103) Four legs good, two legs better? One leg, two legs, three legs and four legs: surface-tethered manganese porphyrins as ultra-selective oxidation catalysts Elettra, SUPERESCA, (GK-CoI).
- 01/02/2007 (2006102) Surface-tethered metalloporphyrins as catalysts and as chemically switchable molecular rotors, Elettra, VUV, (GK-CoI).
- 11/10/2005 (2005034) Extreme UV light-induced decomposition of adsorbed organics on Ru (0001): towards the implementation of next-generation photolithography, Elettra VUV (Co-I).

MEMBERSHIPS/FELLOWSHIPS

- Fellow of the Royal Society of Chemistry (FRSC)
- Fellow of the Higher Education Academy (FHEA)
- Member of the Association of Greek Chemists
- Member of the American Chemical Society

OTHER ACTIVITIES

Member in University committees

- Deputy Head of Department, Department of Chemical Engineering, University of Patras (2022 -)
- Director of Postgraduate Studies, Department of Chemical Engineering, University of Patras (2024 -)
- Director of the International Rankings Committee for the University of Patras (2021-2023).
- Member of the Degree Accreditation Committee for the Department of Chemical Engineering, University of Patras (2020 -).
- Academic representative for Aston University for the Energy Research Accelerator Doctoral Training Partnership – Midlands UK (2016-2018).
- Participation in the European Bioenergy Research Institute's managements group (2017-2019).
- European Bioenergy Research Institute's representative for REF2021 Aston University.
- Aston representative for RSC. Organisation of promotional visits and invited lectures (2017-2019)
- Member of the Chemical Engineering and Applied chemistry H&S committee, Aston University (2016 -2019)
- Member of the European Bioenergy Research Institute's H&S committee, Aston University (2016-2019).

Editorial work

- Guest Editor with Professor Alexandros Katsaounis for the journal *Molecules*. Special issue title: New Insight in Catalysis and Electrocatalysis for CO₂ Conversion 2024
- Guest Editor with Professor Ioannis Yentekakis for the journal *Catalysts*. Special Issue Title: Noble Metal Catalysts (2020).
- Guest Editor with Professor Christopher Baddeley for *Surface Science*, Volume 646, April 2016, Surface science for heterogeneous catalysis, a special issue in Honour of Richard Lambert.

Grant proposal reviewer

- European Commission / Horizon Europe
- Engineering and Physical Science Research Council (EPSRC)
- Hellenic Foundation for Research and Innovation (ELIDEK)
- Centre of Functional Nanomaterials, Brookhaven National Laboratory (2013- 2015).

Reviewer for scientific journals

- Surface Science ▪ Chemical Science ▪ ACS NANO ▪ Accounts of Chemical Research ▪ The Journal of Physical Chemistry ▪ The Journal of Physical Chemistry Letters ▪ Applied catalysis B, Environmental ▪ Applied Catalysis A: General ▪ International Journal of Hydrogen Energy ▪ ACS Sustainable Chemistry & Engineering ▪ ACS Catalysis ▪ Advanced Materials ▪ Physical Chemistry Chemical Physics ▪ Chemical Engineering Research and Design ▪ Chemical Engineering Journal Advances ▪ Catalysis Science and Technology ▪ Catalysts
- Reviewer certificate of appreciation ACS publications -2011
- Surface science highly valued reviewer certificate – 2014

Conference and Workshop Involvement

- Co-organizer *14th Postgraduate Workshop / Panhellenic Scientific Conference in Chemical Engineering (ΠΕΣΧΜ14)*
Aristotle University of Thessaloniki (Porto Palace Hotel, Thessaloniki, Greece), 29–31 May 2024.
- Member of the Organizing Committee 14th Postgraduate Workshop in Chemical Engineering (ΠΕΣΧΜ14) Aristotle University of Thessaloniki, 29–31 May 2024
- Member of the Scientific Committee 13th Postgraduate Workshop in Chemical Engineering (ΠΕΣΧΜ13), University of Patras, 2–4 June 2023
- Co-organizer International Workshop on Catalysis, Nanomaterials, and Structural Characterization Techniques, University of Ghana, 20–22 May 2017
- Departmental Seminar Organizer, Department of Chemistry, University of Hull, 2012–2015 (Organized research seminars and guest lectures in surface science and catalysis)

TEACHING EXPERIENCE

1. Teaching Certification

- PGCert - Postgraduate Certificate in Academic Practice (2014) University of Hull.
- Fellow of the Higher Education Academy (FHEA). Recognition reference: PR059619 (30/08/2013).

2. Taught courses**Chemistry Department, Tufts University, United States:**

- Chem 0237 Catalysis on Surfaces. Fall semester 2011. Elective course for all graduate (PhD and MS) and final year undergraduate students.

Chemistry Department, The University of Hull, United Kingdom:

- 06727: Topics in Inorganic and Materials Chemistry (Design and deliver course on photo-electron Spectroscopy) – 4th year course (2012/13 – 2014/15)
- 06747: Advanced Topics in Nanotechnology (Design and deliver course on Surface Characterization Techniques) - 4th year course - (2012/13 – 2014/15)
- 06751/06750: Topics in Nanotechnology (Mesoporous ceramics) -3rd and 4th year (2012/13 – 2014/15)
- 05510: 1st year synthesis and analysis labs (2012/13 – 2014/15)
- 06013/06524: Inorganic chemistry workshops - 2nd year course (2012/13 – 2014/15)
- 06776: BSc Chemistry final year group research projects - (2013/14)

- 06770: Literature review projects; 2013-2015 – 3rd year course (2012/13 – 2014/15)
- 06785: MSc Literature Projects (2013/14)
- 06789: MSc Research Project (2013/14)
- 06791: MChem Extended Research Project (2013/14 – 2014/15)
- Supervisor for Industrial placements (2 students) (2013/14 – 2014/15)

Department of Chemical Engineering and Applied Chemistry, Aston University, United Kingdom:

- CH1105: States of Matter – 1st year Chemistry & Chemical Engineering (2015/16 – 2018/19)
- CE3003: Design projects - 3rd year Chemical Engineering
- CE3112: Nanomaterials - 3rd - 4th year - Chemistry & Chemical Engineering students (2015/16 – 2018/19)
- CH3010: Catalysis - 3rd - 4th year Chemistry & Chemical Engineering students (2016/17 – 2018/19)
- CH3117: Literature Review projects - 3rd year - Chemistry (2015/16 – 2018/19)
- CH3011: BSc Research Project (2016/17 – 2017/18)
- CE4100: MEng Research Project (2017/18)
- Supervisor for Industrial and Student placements (9 students) (2015/16 – 2017/18)

Department of Chemical Engineering, University of Patras, Greece:

- CHM-515: Principles of Instrumental Analysis - 3rd year (2019/20 -)
- CHM_841: Chemical Reaction Engineering II – 4th year (2020/21-)
- CHM-E-B3: Surface Science (5th year) (2019/20 -)
- CHM_521: Physical Chemistry Laboratory - 2nd year (2019/20 – 2023/24)
- GCHM_C711: Surface Science - MSc course (2019/20 – 2021/22)
- GCEHM-A501 Chemical Kinetics and Reactor Engineering – PhD course (2020/21 –)

Chemistry Department, Cambridge University, United Kingdom:

- Demonstrator, 1st year laboratories, Thermodynamics Kinetics
- Tutoring for 1st year Natural Sciences undergraduate tutoring (King's College, Cambridge). Topics: (i) Thermodynamics (ii) Kinetics (iii) Periodicity of the elements (iv) Organic chemistry.

3. Postgraduate student supervision (PhD, MSc)

- Dan Liu, **MSc** (2013-2014) The use of gold nano catalysts in selective oxidation catalysis. Chemistry Department, The University of Hull, United Kingdom.
- Mohammed Alotaibi, **PhD** (2013-2016) Development of novel continuous flow reaction methodology for fine chemical production. Chemistry Department, The University of Hull, United Kingdom.
- Martin J. Taylor, **PhD** (2013-2017) The Ultra-Selective Hydrogenation of Furfural on PtCu Supported Bimetallic Nanoparticles and on Pt(111) under Ultra-High Vacuum. Chemistry Department, The University of Hull, United Kingdom and Department of Chemical Engineering and Applied Chemistry, Aston University.
- Kin Wai Cheah, **Visiting PhD Student** (2017), Catalytic hydroprocessing of oleic acid to diesel-like hydrocarbons using tetralin as an in-situ hydrogen source. Department of Chemical Engineering and Applied Chemistry.
- Thomas A. Bryant, **PhD** (2016-2020) Smart Design of Solid Base Catalysts with Different Pore Architecture, Properties and Functional Groups for the Transesterification of Triglycerides and the Selective Oxidation Cascade of Benzyl Alcohol with Benzyl Amine. Department of Chemical Engineering and Applied Chemistry.
- Mohammed J. Islam, **PhD** (2017-2021) Pd and Cu Monometallic and Single Atom Alloy Catalysts for The Hydrogenation Of Biomass Based Chemicals. Department of Chemical Engineering and Applied Chemistry, Aston University.

- Sotirios Tsatsos, **PhD** (2019 - 2022) The adsorption and reactivity of Furfural on Model Monometallic and Bimetallic Catalytic systems based on Nickel, Copper and Platinum. Department of Chemical Engineering, University of Patras, Greece.
- Charalampos Drivas, **PhD** (2024 - 2025) Study of the Interfaces of Organic Semiconductors and Layered Materials with Surface Sensitive Techniques for Applications in Organic Electronics. Department of Chemical Engineering, University of Patras, Greece.
- Alexandros K. Bikogiannakis **PhD** (2023 -) CO₂ Hydrogenation over monometallic and Bimetallic Catalysts

4. DIPLOMA THESIS SUPERVISION (MENG, MCHEM, BSC)

University of Hull

- Richard Kidson, **MChem** (2013/14) Selective hydrogenation of biomass derived molecules on Pt(111)
- Rebecca Hills, **MChem** (2013/14) Heterogeneously catalysed coupling reactions on Cu based dispersed catalysts
- Louis Ashton, (2013/14) Heterogeneously catalysed coupling reactions on Au based dispersed catalysts
- Rory Megginson, **MChem** (2014/15) Selective oxidation of cyclohexene using gold nanoparticles supported in side silica monoliths
- Elis Davies, **MChem** (2014/15) Size Effects of Gold Nanoparticles on Cross Coupling Catalysts
- Blaine Murray, **MChem** (2014/15) Oxidation Effects in the Nano-Copper Catalysed Ullmann Condensation Reaction.
- Sophia Eggleston, Sirana Antonyan, Scott Barnes, Antonia Charlton and Colin Fabre **BSc Final Year Group project** (2014/15), Au Based Heterogeneous Catalysts for the Cross Coupling of Amines with Alcohols.

Aston University

- Mohammed J. Islam, **BSc Final Year Project** (2016/17), Coupling reactions on gold nanoparticles
- Friya Tailor, **BSc Final Year Project** (2017/18), Cross coupling reactions on gold nanoparticles
- Arjun P. Patel, **MEng** (2017/18), Metallic Catalysts for the Selective Transformation of Biomass Derived Hydrocarbons to Useful Products
- Navneet Dharni, **MEng** (2017/18), Magnesium oxide based catalysts for the production of biodiesel.

University of Patras

- Atsou Evmorfia, **MEng** (2020/21 – 2021/22) The Adsorption and reactivity of Furfural on clean and hydrogen pre-covered Pt(111).
- Eleni Lazana, **MEng** (2020/21 – 2021/22) The selective conversion of organic molecules derived from lignocellulosic biomass over model nickel catalyst surfaces.
- Kalliopi Helidoni, **MEng** (2021/22) Nickel and Copper based bimetallic catalysts for the catalytic upgrading of biomass products
- Stavroula Aretha, **MEng** (2021/22) Particle size effects on Ru/ YSZ electrocatalyzed CO₂ Hydrogenation
- Fotios Xydias, **MEng** (2022/23) The Interaction and Reactivity of Furfural on Clean and Oxidized Ni(111) Surface.
- Alexandros Bikogiannakis, **MEng** (2022/23) Dry Reforming of Methane at Low Temperatures with Ruthenium-Based Catalysts.
- Athina Stylla, **MEng** (2023/24) Oxidation of a model catalytic Ni(111) surface: Effect on the adsorption and reactivity of carbon monoxide and furfural.

PEER REVIEWED PUBLICATIONS

- A1. Acetylene coupling on Cu(111): formation of butadiene, benzene and cyclo-octatetraene.
G. Kyriakou, J. Kim, M. S. Tikhov, N. Macleod, R. M. Lambert.
J. Phys. Chem. B **2005**, 109, 10952-10956.
- A2. Structure and dynamics of gold atomic chains grown on Cu(110): experiment and theory.
G. Kyriakou, F. J. Williams, M. S. Tikhov, A. Wander, R. M. Lambert.
Phys. Rev. B **2005**, 72, 121408.
- A3. Copper as a selective catalyst for the epoxidation of propene.
S. O. P. H. Vaughan, G. Kyriakou, N. MacLeod, M. S. Tikhov, R. M. Lambert.
J. Catal. **2005**, 236, 401-404.
- A4. Sulphur, normally a poison, strongly promotes chemoselective catalytic hydrogenation: stereochemistry and reactivity of crotonaldehyde on clean and S-modified Cu(111).
M. E. Chiu, G. Kyriakou, F. J. Williams, D. J. Watson, M. S. Tikhov, R. M. Lambert.
Chem. Commun. **2006**, 1283-1285.
- A5. Sensitivity and selectivity of Pt electrodes for hydrocarbon sensing in an ultra high vacuum environment. G. Kyriakou, D. J. Davis and R. M. Lambert.
Sens. Actuator B-Chem. **2006**, 116, 1013-1018.
- A6. Uptake of n-hexane, 1-butene and toluene by Au/Pt bimetallic surfaces: a tool for selective sensing of hydrocarbons under high vacuum conditions.
D. J. Davis, G. Kyriakou, R. M. Lambert.
J. Phys. Chem. B **2006**, 110, 11958-11961.
- A7. Tilt the molecule and change the chemistry: mechanism of S-promoted chemoselective catalytic hydrogenation of crotonaldehyde on Cu(111).
M. E. Chiu, D. J. Watson, G. Kyriakou, M. S. Tikhov, R. M. Lambert.
Angew. Chem. Int. Ed. **2006**, 45, 7530-7534.
- A8. A novel, sensitive potentiometric hydrocarbon sensor for high vacuum applications.
G. Kyriakou, D. J. Davis, R. B. Grant, M. S. Tikhov, A. Keen, P. Pakianathan, R. M. Lambert.
J. Phys. Chem. B **2006**, 110, 24571-24576.
- A9. Quantitative hydrocarbon sensor for ultra high vacuum applications.
D. J. Davis, G. Kyriakou, R. B. Grant, M. S. Tikhov, R. M. Lambert.
J. Phys. Chem. C **2007**, 111, 1491-1495.
- A10. Electron impact-assisted carbon film growth on Ru(0001): implications for next generation EUV lithography.
G. Kyriakou, D. J. Davis, R. B. Grant, D. J. Watson, A. Keen, M. S. Tikhov, R. M. Lambert.
J. Phys. Chem. C **2007**, 111, 4491-4494.
- A11. Toward the in situ remediation of carbon deposition on Ru capped multilayer mirrors intended for EUV Lithography: Exploiting the electron induced chemistry.
D. J. Davis, G. Kyriakou, R. B. Grant, M. S. Tikhov, R. M. Lambert.
J. Phys. Chem. C **2007**, 111, 12165-12168.

- A12. The molecular mechanism of tropospheric nitrous acid production on mineral dust surfaces.
R. J. Gustafson, G. Kyriakou, R. M. Lambert.
ChemPhysChem **2008**, 9, 1390-1393.
- A13. Amperometric/potentiometric hydrocarbon sensors: real world solutions for use in ultra high vacuum.
G. Kyriakou, A. V. Stevens, D. J. Davis, R. B. Grant, M. S. Tikhov, R. M. Lambert.
J. Appl. Electrochem. **2008**, 38, 1089.
- A14. Deprotection, tethering and activation of a catalytically active porphyrin to a chemically active metal surface: [SAc]4P-Mn(III)Cl on Ag(100).
M. Turner, O. P. H. Vaughan, G. Kyriakou, D. J. Watson, L. Scherrer, G. Davidson, J. K. Sanders, R. M. Lambert.
J. Am. Chem. Soc. **2009**, 131, 1910-1914.
- A15. Principles of hydrocarbon detection in ultra high vacuum: optimizing sensitivity and selectivity towards harmful species.
A.V. Stevens, G. Kyriakou, R.B. Grant, R.M. Lambert.
Sens. Actuator B-Chem. **2009**, 136, 359-363.
- A16. Heterogeneously catalyzed asymmetric hydrogenation of C=C bonds directed by surface-tethered chiral modifiers.
D. J. Watson, R. B. R. J. Jesudason, S. K. Beaumont, G. Kyriakou, J. W. Burton, R. M. Lambert.
J. Am. Chem. Soc. **2009**, 131, 14584.
- A17. Deprotection, Tethering, and Activation of a One-Legged Metalloporphyrin on a Chemically Active Metal Surface: NEXAFS, Synchrotron XPS, and STM Study of [SAc]P-Mn(III)Cl on Ag(100).
M. Turner, O. P. H. Vaughan, G. Kyriakou, D. J. Watson, L. Scherrer, A. C. Papageorgiou, J. K. Sanders, R. M. Lambert.
J. Am. Chem. Soc. **2009**, 131, 14913-14919.
- A18. Sonogashira coupling on an extended gold surface in vacuo: reaction of phenylacetylene with iodobenzene on Au(111).
V. K. Kanuru, G. Kyriakou, S. K. Beaumont, A. C. Papageorgiou, D. J. Watson and R. M. Lambert.
J. Am. Chem. Soc. **2010**, 132, 8081-8086.
- A19. Heterogeneous uptake of gaseous hydrogen peroxide by Gobi and Saharan dust aerosols: a potential missing sink for H₂O₂ in the troposphere.
M. Pradhan, G. Kyriakou, A.T. Archibald, A. C. Papageorgiou, M. Kalberer, R. M. Lambert.
Atmos. Chem. Phys. **2010**, 10, 7127-7136.
- A20. Influence of Adsorption Geometry in the Heterogeneous Enantioselective Catalytic Hydrogenation of a Prototypical Enone.
S. K. Beaumont, G. Kyriakou, D. J. Watson, O. P.H. Vaughan, A. C. Papageorgiou, R. M. Lambert.
J. Phys. Chem. C **2010**, 114, 15075-15077.
- A21. Identity of the Active Site in Gold Nanoparticle-Catalyzed Sonogashira Coupling of Phenylacetylene and Iodobenzene.
S. K. Beaumont, G. Kyriakou, R. M. Lambert.
J. Am. Chem. Soc. **2010**, 132, 12246-12248.
- A22. Synthesis, characterization and surface tethering of sulfide-functionalized Ti16-oxo-alkoxy cages.

- S. Eslava, A. C. Papageorgiou, S. K. Beaumont, G. Kyriakou, D. S. Wright, R. M. Lambert.
Chem. Mater. **2010**, 22, 5174-5178.
- A23. Sonogashira coupling catalyzed by gold nanoparticles: does homogeneous or heterogeneous chemistry dominate?
G. Kyriakou, S. K. Beaumont, S. M. Humphrey, C. Antonetti, R. M. Lambert.
ChemCatChem **2010**, 2, 1444-1449.
- A24. Aspects of heterogeneous enantioselective catalysis by metals.
G. Kyriakou, S. K. Beaumont, R. M. Lambert.
Langmuir **2011**, 27, 9687-9695.
- A25. Organic thin film induced substrate restructuring: An STM study of the interaction of naphtho[2,3-a]pyrene Au(111) herringbone reconstruction.
E.V. Iski, A. D. Jewell, H. L. Tierney, G. Kyriakou, E. C. H. Sykes.
J. Vac. Sci. Technol. A **2011**, 29, 04601.
- A26. Controllable Restructuring of a Metal Substrate: Tuning the Surface Morphology of Gold.
E.V. Iski, A. D. Jewell, H. L. Tierney, G. Kyriakou, E. C. H. Sykes.
Surf. Sci. **2012**, 606, 536-541.
- A27. Rediscovering Cobalt's Surface Chemistry.
E. A. Lewis, A. D. Jewell, G. Kyriakou, E. C. H. Sykes.
Phys. Chem. Chem. Phys. **2012**, 14, 7215-7224.
- A28. Isolated Metal Atom Geometries as a Strategy for Selective Heterogeneous Hydrogenations.
G. Kyriakou, M. B. Boucher, A. D. Jewell, E. A. Lewis, T. J. Lawton, A. E. Baber, H. L. Tierney, M. Flytzani Stephanopoulos, E. C. H. Sykes.
Science **2012**, 335, 1209-1212.
- A29. Quantum Tunneling Enabled Self-Assembly of Hydrogen Atoms on Cu(111).
A. D. Jewell, G. Peng, M. F. G. Mattera, E. A. Lewis, C. J. Murphy, G. Kyriakou, M. Mavrikakis, E. C. H. Sykes.
ACS Nano **2012**, 6, 10115-10121.
- A30. Molecular-Scale Surface Chemistry of a Common Metal Nanoparticle Capping Agent: Triphenylphosphine on Au(111).
A. D. Jewell, E. C. H. Sykes, and G. Kyriakou.
ACS Nano **2012**, 6, 3545-3552.
- A31. Controlling the Spillover Pathway with the Molecular Cork Effect.
M. D. Marcinkowski, A. D. Jewell, M. Stamatakis, M.B. Boucher, E. A. Lewis, C. J. Murphy, G. Kyriakou, E. C. H. Sykes.
Nat. Mater. **2013**, 12, 523-528.
- A32. Molecular-Scale Perspective of Water-Catalyzed Methanol Dehydrogenation to Formaldehyde.
M. B. Boucher, M. D. Marcinkowski, M. L. Liriano, C. J. Murphy, E. A. Lewis, A. D. Jewell, M. F. G. Mattera, G. Kyriakou, M. Flytzani-Stephanopoulos and E. C. H. Sykes.
ACS Nano **2013**, 7, 6181-6187.
- A33. An Atomic Scale View of Methanol Reactivity at the Cu(111)/CuOx Interface.

- T. J. Lawton, G. Kyriakou, A. E. Baber E. C. H. Sykes.
ChemCatChem **2013**, 5, 2684-2690.
- A34. Significant Quantum Effects in Hydrogen Activation.
G. Kyriakou, E. R. M. Davidson, G. Peng, L. T. Roling, S. Singh, M. B. Boucher, M. D. Marcinkowski, M. Mavrikakis, A. Michaelides, E. C. H. Sykes.
ACS Nano **2014**, 8, 4827-2835.
- A35. Microwave-assisted hydrothermal synthesis of carbon monolith via a soft-template method using resorcinol and formaldehyde as carbon precursor and pluronic F127 as template.
S. E. Elaigwu, G. Kyriakou, T. J. Prior, G. M. Greenway.
Mater. Lett. **2014**, 123, 198-201.
- A36. Removal of Pb²⁺ and Cd²⁺ from aqueous solution using chars from pyrolysis and microwave-assisted hydrothermal carbonization of *Prosopis africana* shell.
S.E. Elaigwu, V. Rocher, G. Kyriakou, G. M. Greenway.
J. Ind. Eng. Chem. **2014**, 20, 3467-3473.
- A37. Sonogashira Cross-Coupling and Homocoupling on a Silver Surface: Chlorobenzene and Phenylacetylene on Ag(100).
C. Sanchez-Sanchez, N. Orozco, J. P. Holgado, S. K. Beaumont, G. Kyriakou, D. J. Watson, A. R. Gonzalez-Elipe, L. Feria, J. Fernández Sanz, R. M. Lambert.
J. Am. Chem. Soc. **2015**, 137, 940-947.
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B. BOOK CHAPTERS / PATENTS

- B1. C. L. Yiin, K. L. Yap, D. S. A. Mahmud, B. Chin, S. S. M. Lock, Y. H. Chan, K. W. Cheah, M. J. Taylor, G. Kyriakou
Chapter 6 - Role of deep eutectic solvents as pretreatment medium for biomass transformation,
Editor(s): Ashish Pandey, Bhagyashree Tiwari, Ashok Pandey, Suzana Yusup,

Current Developments in Biotechnology and Bioengineering,
Elsevier, **2022**, 139-160
ISBN 9780323999052
<https://doi.org/10.1016/B978-0-323-99905-2.00013-3>

- B2. Chatziliass, C; Martino, E; Zagoraios, D; Kyriakou, G; Katsaounis, A; (2023). Electrochemical Promotion of Catalysis for CO₂ Valorization. In: Vernoux, P., Vayenas, C.G. (eds) Recent Advances in Electrochemical Promotion of Catalysis. Modern Aspects of Electrochemistry, vol 61. Springer, Cham.
Published online 04 October **2022**
https://doi.org/10.1007/978-3-031-13893-5_6
- B3. Patent: Contamination control method for surface exposed to carbonaceous material and ionizing radiation involves supplying second gas containing reducing species such as carbon oxide for reacting with oxidizing species on material surface.
WO2007144666-A1; TW200809426-A; EP2030083-A1; US2010043837-A1.
Inventors: R. B. Grant, R. M. Lambert, D. J. Davis, G. Kyriakou.

C. CONFERENCE PROCEEDINGS / ABSTRACTS / PRESENTATIONS:

- C1. The Selective Oxidation of Styrene on Au/Cu(111)bimetallic surfaces
G. Kyriakou, M. S. Tikhov, R. M. Lambert
Abstract and Poster Presentation
4-9 August 2002, UK Surface Science Summer School, Department of Physics, University of Warwick, United Kingdom.
- C2. Chemistry and Catalysis on Cu and Cu/Au Bimetallic Surfaces
G. Kyriakou
Oral presentation
Departmental Colloquia in Physical Chemistry,
11 February 2003, Department of Chemistry, University of Cambridge, Cambridge, United Kingdom
- C3. Alkene Selective oxidation on Cu/Au surfaces
G. Kyriakou, F. J Williams, M. S. Tikhov, R. M. Lambert
Abstract and poster presentation
1 – 6 June 2003, 18th North American Catalysis Society Meeting, Cancun, Mexico
- C4. Part per trillion (10⁻⁹ mbar) sensor for trace determination of organic contamination in vacuum environments
R. B. Grant, F. Tapp, P. Pakianathan, R. M. Lambert, D. J. Davis and G. Kyriakou.
Abstract and poster presentation
1-4 November 2004, 3rd International EUVL symposium, Miyazaki, Japan
- C5. Contamination Sensing and Control for Multilayer Optics
A. Keen, R. B. Grant, G. Kyriakou, D. J. Davis, R. M. Lambert
Abstract and poster presentation
7- 9 November 2005, 4th International EUVL Symposium, San Diego, USA
- C6. Contamination Control in the projection Optics Environment
A. Keen, R. B. Grant, R. M. Lambert, M. S. Tikhov, G. Kyriakou, D. J. Davis

Abstract and poster presentation

15 – 18 October 2006, 5th International EUVL Symposium, Barcelona, Spain

- C7. Understanding chemoselective heterogeneous catalysis

M. E. Chiu, D. J. Watson, G. Kyriakou, F.J. Williams, M. S. Tikhov, R. M. Lambert

Abstract and oral presentation

10-14 September 2006, ACS 232nd National Meeting, San Francisco, CA, USA

- C8. Amperometric and potentiometric platinum/YSZ electrochemical hydrocarbon sensors for high vacuum applications

G. Kyriakou, D. J. Davis, A. V. Stevens, R. B. Grant, A. Keen, M. S. Tikhov, R. M. Lambert

Abstract and poster presentation

26 – 31 August, 2007, VIII European Congress on Catalysis, EuropaCat, Turku, Finland

- C9. Enabling Extreme Ultra Violet Lithography; Real world solutions in Ultra High Vacuum

G. Kyriakou, D. J. Davis, A. V. Stevens, R. B. Grant, A. Keen, M. S. Tikhov, R. M. Lambert

Abstract and Invited talk

1 – 5 September 2007, 1st International Conference Electrochemical Promotion of Catalysis, Thessaloniki, Greece

- C10. Gold nanoparticles from by seed-growth method: control of size and shape

C. Antonetti, S. M. Humphrey, S. K. Beaumont, G. Kyriakou, R. M. Lambert

Abstract and poster presentation

31 August – 4 September, 2009, IXth European Congress on Catalysis, Europacat, Europacat, Salamanca, Spain

- C11. Heterogeneous asymmetric C=C hydrogenation: Enantiodirection by surface tethered chiral modifiers

S. K. Beaumont, G. Kyriakou, D. J. Watson, R. J. Bennie Ram John Jesudason, O. P.H. Vaughan, A. C. Papageorgiou, J. W. Burton, R. M. Lambert

Abstract and poster presentation

March 21 - 25, 2010, ACS 239th National Meeting, San Francisco, CA, USA

- C12. Heterogeneously-catalyzed Sonogashira coupling of phenylacetylene and iodobenzene on gold nanoparticles and Au(111)

G. Kyriakou, S. K. Beaumont, V. K. Kanuru, A. C. Papageorgiou, D. J. Watson, S. M. Humphrey and R. M. Lambert

Abstract and oral presentation

Gabor A. Somorjai Award for Creative Research in Catalysis: Symposium in Honor of Robert J. Madix

21 - 25 March 2010, ACS 239th National Meeting, San Francisco, CA, USA

- C13. Synthesis, characterization and Au surface tethering of Ti16-oxo-alkoxy cages

S. Eslava, A. C. Papageorgiou, S. K. Beaumont, G. Kyriakou, D. S. Wright, R. M. Lambert.

Abstract

22-26 August 2010, Fundamental Research in Colloid and Surface Science, 240th ACS National Meeting, Boston, MA, USA

- C14. Heterogeneously-catalyzed C-C and C-N bond forming reactions on Au(111) and gold catalysts

G. Kyriakou, S. K. Beaumont, V. K. Kanuru, A. C. Papageorgiou, D. J. Watson, S. M. Hamphrey, R. M. Lambert

Abstract and oral presentation

22-26 August 2010, 240th ACS Meeting, Boston, MA, USA

- C15. Heterogeneous asymmetric C=C hydrogenation: Critical influence of the hydrogenation substrate
S. K. Beaumont, G. Kyriakou, D. J. Watson, R. B. Jesudason, O. P. Vaughan, A. Papageorgiou, J. W. Burton, R. M. Lambert

Abstract and oral presentation

22-26 August 2010, 240th ACS National Meeting, Boston, MA, USA

- C16. An STM and XPS investigation of the interaction of methanol with bare and oxidized Cu(111) model catalysts

T. J. Lawton, G. Kyriakou, A. E. Baber and E. C. H. Sykes

Abstract to the New England Chapter of the American Vacuum Society

6 June 2011, Burlington, MA, USA

- C17. An atomic-scale study of the reactivity of methanol with model Cu, O/Cu and Pd/Cu catalysts via STM, XPS and TPR

T. J. Lawton, M. B. Boucher, A. E. Baber, G. Kyriakou and E. C. H. Sykes

Poster Presentation

17 March 2012, 2nd Annual NanoWorcester, Conference, Worcester, MA, USA

- C18. Atomic Scale Insights into the reactivity of catalytically important CuPd alloys

M.B. Boucher, T.J. Lawton, Jewell, M.D Marcinkowski, A. E. Baber, A. Lewis, H. Tierney, G. Kyriakou, M. Flytzani-Stephanopoulos, E.C.H. Sykes

Abstract and oral presentation

1-6 July 2012, International Congress in Catalysis, 15th Annual ICC, Munich, Germany

- C19. An atomic-scale study of the adsorption, assembly and reactivity of methanol with model Cu, O/Cu and Pd/Cu alloy surfaces with STM, TPD and XPS

T. J. Lawton, M. B. Boucher, G. Kyriakou and E. C. H. Sykes

Abstract and oral presentation

11 June 2012, 86th ACS Colloid and Surface Science Symposium Baltimore, Maryland, USA

- C20. Towards a Molecular Level Understanding of CO and H₂ Adsorption and Dissociation on Cobalt Nanoparticles

E. A. Lewis, A.D. Jewell, G. Kyriakou, E.C.H. Sykes

Abstract and oral presentation

27 February – 2 March, 2012, APS March Meeting 2012, Volume 57, Number 1, Boston, Massachusetts, USA

- C21. Isolated metal atom geometries: A strategy for selective heterogeneous hydrogenations

G. Kyriakou, M. B. Boucher, A. D. Jewell, E. A. Lewis, T. J. Lawton, A. E. Baber, E.C.H. Sykes

Abstract and oral presentation

243rd ACS National Meeting, 25-29 March, 2012, San Diego, CA, USA

- C22. Single Atom Alloy Catalysts for Selective Hydrogenation Reactions

M. Boucher, G. Kyriakou, G. Cladaras, B. Zugiz, J. Kammert, M. Marcinkowski, T. Lawton, E.C.H. Sykes, M. Flytzani-Stephanopoulos

Abstract and oral presentation

1-6 September 2013, XIth European Congress on Catalysis, Lyon, France

- C23. Pt-based heterogeneous catalysts for the selective hydrogenation of biomass based molecules

M. Taylor, G. Kyriakou

Poster presentation

09 April 2014, Royal Society of Chemistry, Organic Division, North East Regional Meeting, University of Hull, United Kingdom

- C24. Nanostructured materials for renewable energy and chemical synthesis

G. Kyriakou

Invited lecture

22 October 2014, Aston University, Birmingham, United Kingdom

- C25. Pt-based heterogeneous catalysts for the selective hydrogenation of biomass based molecules

M. J. Taylor, G. Kyriakou

Poster presentation

09 April 2014, Royal Society of Chemistry, Organic Division, North East Regional Meeting, University of Hull, United Kingdom

- C26. Optimising Pt Based Heterogeneous Catalysts for the Hydrogenation of Biomass Derived Molecules

M. J. Taylor, G. Kyriakou

Poster presentation

05 November 2015, Challenges in Catalysis for Pharmaceuticals and Fine Chemicals IV, Bridlington house, London, United Kingdom

- C27. Ir catalysed N₂O decomposition: Effect of Ir particle size and metal support interaction

I. V. Yentekakis, G. Goula, P. Panagiotopoulou, S. Kampouri, M. J. Taylor, G. Kyriakou and R. M. Lambert

Abstract

27 - 30 September 2016, 5th International Conference on Industrial & Hazardous Waste Management, Chania, Crete, Greece

- C28. Heterogeneously catalysed cross coupling reactions on Gold; particles vs atomic dispersions

G. Kyriakou, S. K. Beaumont, A. F. Lee and R. M. Lambert

Abstract and oral presentation

30 June – 2 July 2016, The International Symposium on Single-Atom Catalysis (ISSAC), Dalian, China

- C29. Single atom alloys for selective catalytic hydrogenation reactions

G. Kyriakou, M. B. Boucher, F. R. Lucci, J. Liu, M. D. Marcinkowski, M. J. Taylor, M. Flytzani-Stephanopoulos and E. C. H. Sykes

Abstract and poster presentation

3 - 8 July 2016, 16th International Congress on Catalysis (ICC 16), China National Convention Centre, Beijing, China

- C30. Highly selective supported nanoparticles for the hydrogenation of furfural under mild conditions
M. J. Taylor, K. Wilson, A. F. Lee and G. Kyriakou

Abstract and poster presentation

3 - 8 July 2016, 16th International Congress on Catalysis (ICC 16), China National Convention Centre, Beijing, China

- C31. Highly selective supported nanoparticles for the hydrogenation of furfural under mild conditions
M. J. Taylor, K. Wilson, A. F. Lee and G. Kyriakou

Abstract and poster presentation

8 March 2016, Perspectives On Applied Catalyst Characterization, Royal Society of Chemistry, Burlington House, London, United Kingdom

- C32. Ultra-selective hydrogenation of furfural on Pt based dispersed catalysts and extended Pt(111) single surfaces”

G. Kyriakou

Invited talk

Global Bioenergy, Biofuels and Biorefining network (GB3 -Net)

2 December 2016, Department of Chemical Engineering, University of Massachusetts, USA

- C33. Ultra-selective hydrogenation of furfural on Pt based dispersed catalysts and extended Pt(111) single surfaces

G. Kyriakou, M. J. Taylor, K. Wilson and A. F. Lee

Abstract and Oral presentation

4- 6 January 2017, UK Catalysis Conference (UKCC), Holywell Park, Loughborough University, United Kingdom

- C34. A surface science approach to heterogeneous catalysis

G. Kyriakou

Sponsors: Leverhulme - Royal Society Africa scheme.

Invited lecture

International Workshop on Heterogeneous Catalysis, Nanomaterials, X-ray Techniques and NMR
22 – 24 May 2017, Chemistry Department, University of Ghana, Accra, Ghana

- C35. Ultra-selective hydrogenation of furfural on Pt based dispersed catalysts and extended Pt(111) single crystal surfaces

Invited lecture

G. Kyriakou

Sponsors: Leverhulme - Royal Society Africa scheme.

International Workshop on Heterogeneous Catalysis, Nanomaterials, X-ray Techniques and NMR.
22 – 24 May 2017, Chemistry Department, University of Ghana, Accra, Ghana

- C36. Triglyceride Transesterification over MgO doped Hierarchical Porous SiO₂

T. A. Bryant, M. A. Isaacs, C. M. A. Parlett, K. Wilson, G. Kyriakou, A. F. Lee

Abstract and poster presentation

17 - 21 July 2017, Royal Society of Chemistry, Catalysis: Fundamentals and Practice, Liverpool , United Kingdom

- C37. Hydrogenation reactions of model alkenes and biomass derived molecules on Pt based catalysts, Pt(111) single crystals and single atom alloy catalysts

G. Kyriakou

Invited lecture

19 October 2017 Chemical Engineering, University of Patras, Greece

- C38. The challenges for the characterisation of commercial anion exchange resins for catalysis
Manuela Schirru, Marta Granollers Mesa, Georgios Kyriakou

Abstract and poster presentation

27th -28th March 2018, ChemEngDay UK 2018, University of Leeds, United Kingdom

- C39. The effect of Cu in PtCu bimetallic particles for the selective transformation of furfural (Abstract and poster presentation)

Martin J. Taylor, Mohammed J. Islam, Thomas Bryant, Christopher Parlett, Mark Isaacs, Karen Wilson, Adam Lee and Georgios Kyriakou

Abstract and poster presentation

3rd – 5th January 2018, UK Catalysis Conference 2018, Loughborough University, Loughborough, United Kingdom

- C40. The effect of the labile lattice oxygen of the carrier on the oxidation state and catalytic behaviour of dispersed Rh nanoparticles during the biogas dry reforming reaction.

Abstract and poster presentation

G. Goula, G. Μποτζολάκη, G. Artemakis, I. Betsi-Argyropoulou, M. Χατζησυμεών, K. Kousi, D. Kondarides, G. Kyriakou, I. Yentekakis.

29-31 May 2019, 12th Panhellenic Scientific Conference of Chemical Engineering, Athens, Greece.

- C41. Monometallic and highly-diluted bimetallic catalysts based on Pt and Cu for the selective Transformation of furfural

Abstract and poster presentation

G. Kyriakou, M. J. Islam, M. J. Taylor

29-31 May 2019, 12th Panhellenic Scientific Conference of Chemical Engineering, Athens, Greece.

- C42. The role of platinum in cinnamaldehyde aerobic oxidation to cinnamic acid

Abstract and poster presentation

Costanza Cucuzzella, Marta Granollers-Mesa, Georgios Kyriakou

14th International conference on materials chemistry (MC14) 8 - 11 July 2019, Birmingham, United Kingdom.

- C43. The selective hydrogenation of model hydrocarbons and biomass derived molecules over bimetallic catalysts and single crystal surfaces.

Invited lecture

G. Kyriakou

4 May 2020 ITE/IEEXMH, Patras, Greece.

- C44. Furfural on Pt(111); A correlation between Surface Activity and Electronic Structure

G. Kyriakou

Invited lecture

Symposium on Bioenergy, Solid Fuels & Catalysis, 14 April 2021, University of Hull, United Kingdom,

- C45. The effect copper phase dispersion and nanoparticle formation altered by metal precursor selection for the catalytic hydrogenation of furfural

M. Islam, M. Granollers Mesa, A. Osatiashtiani, M. Taylor, J. Manayil, C. Parlett, M. Isaacs and G. Kyriakou

Abstract and Poster presentation

UK Catalysis Virtual Conference 2021, 6th – 8th January 2021.

- C46. Mechanistic and kinetic studies on hydrogen transfer deoxygenation of oleic acid over a bimetallic Pd₆₀Cu₄₀ catalyst

K. W. Cheah, S. Yusup, M. J. Taylor, B. ShenHow, A. Osatiashtiani, D. J. Nowakowski, A. V. Bridgwater, Georgios Kyriakou, Y. Uemura, V.S koulou

Abstract and poster presentation

29th European Biomass Conference and Exhibition, 26th - 29th April, 2021, Marseille, France

- C47. Support-induced effects on the iridium nanoparticles activity, selectivity and stability performance under the CO₂ reforming of methane reaction
V. Yentekakis, G. Kyriakou, R. M. Lambert, P. Panagiotopoulou¹, K. Kousi, D. I. Kondarides, G. Goula
Abstract – Oral presentation
12th International Conference on Hydrogen Production September 19-23, 2021 (ICH2P-2021 – On-line conference)
- C48. Electronic and Geometric Aspects of Copper Growth on a Stepped Nickel Surface
S. Tsatsos and G. Kyriakou,
Abstract and Oral presentation
XXXV Panhellenic Conference on Solid State Physics and Materials Science Virtual Conference, Athens, 26-29 September 2021.
- C49. The selective Hydrogenation of Furfural on monoatomic and Single Atom Alloy Catalysts based on Pd and Cu
Mohammed J. Islam, Marta Granollers Mesa, Amin Osatiashtiani, Martin J. Taylor, S Tsatsos and G. Kyriakou
Abstract and Plenary Lecture by G. Kyriakou
16 Panhellenic Symposium in Catalysis Chania, Greece. 20-22 October 2022.
- C50. A study of the Electrochemical Promotion of Catalytic Activity of CO₂ Hydrogenation on Ru/YSZ catalytic thin films over a semi-pilot scale monolithic reactor .
E. Martino, C. Chatziliias, C. G. Vayenas, G. Kyriakou and A. Katsaounis
Abstract and poster presentation
16 Panhellenic Symposium in Catalysis, Chania, Greece. 20-22 October 2022.
- C51. Low temperature SOFC as a self-electropromoted reactor for CO₂ hydrogenation.
C. Chatziliias, A Lymperi, E. Martino, C.G. Vayenas, G. Kyriakou, A. Katsaounis.
Abstract and presentation
16 Panhellenic Symposium in Catalysis, Chania, Greece. 20-22 October 2022.
- C52. Wireless Electrochemical Promotion Of Catalytic Reactions Using Low Temperature Sofcs. The Case Of CO₂ Hydrogenation
Abstract – Oral presentation
A. Lymperi, C. Chatziliias, E. Martino, C. Vayenas, G. Kyriakou, A. Katsaounis
13^ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής, Πάτρα, 2-4 Ιουνίου 2022
- C53. Systematic Study of the Hydrodeoxygenation of Furfural on Model Bimetallic Cu/Ni(119) Catalysts
Abstract – Poster Presentation
S. Tsatsos, G. Kyriakou
13th Panhellenic Scientific Conference on Chemical Engineering
Patras, June 2–4, 2022
- C54. Pd-Based Bimetallic Electrocatalysts for the Hydrogen Oxidation Reaction in Acidic Media
Abstract – Oral Presentation
G. Bampos, S. Tsatsos, G. Kyriakou, S. Bebelis
13th Panhellenic Scientific Conference on Chemical Engineering
Patras, June 2–4, 2022
- C55. Low temperature SOFC as a self-electropromoted reactor for CO₂ hydrogenation.
C. Chatziliias, A Lymperi, E. Martino, C.G. Vayenas, G. Kyriakou, A. Katsaounis.

Invited lecture

Department of Chemistry, National and Kapodistrian University of Athens 29 May 2023.

- C56. Influence of surface structure on furfural conversion: comparative studies on Ni(111) and NiO(111) single crystal surfaces.

A. Bikogiannakis, F. Xydas, A. Stylla, S. Tsatsos, G. Kyriakou

Abstract - Poster

14ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής Θεσσαλονίκη, 29-31 Μαΐου 2024

- C57. The effect of the reaction conditions on the deactivation of a highly active Ru/TiO₂ catalyst for CO₂ hydrogenation.

A. Bikogiannakis, A. Lymperi, C. Papadopoulou, A. Katsaounis, G. Kyriakou

Abstract - Poster

14ο Πανελλήνιο Επιστημονικό Συνέδριο Χημικής Μηχανικής Θεσσαλονίκη, 29-31 Μαΐου 2024

- C58. Electrochemical Promotion of the Dry Reforming of Methane on a Ru Catalyst Supported on a YSZ Solid Electrolyte

A. Lymperi, A. Zafeiraki, A. Bikogiannakis, G. Kyriakou, A. Katsaounis

Abstract – Oral Presentation

14th Panhellenic Scientific Conference on Chemical Engineering
Thessaloniki, May 29–31, 2024

- C59. Dry Reforming of Methane over Ru Catalysts Supported on Alkaline Earth-Modified CeO₂ Carriers

Abstract – Poster Presentation

P. Mallis, G. Bampos, E.A. Kyriakidou, S. Tsatsos, G. Kyriakou, K.M. Papazissi, D. Tsiplakidis, S. Balomenou, D. Kontaridis

14th Panhellenic Scientific Conference on Chemical Engineering
Thessaloniki, May 29–31, 2024

- C60. Influence of surface structure on furfural conversion: comparative studies on Ni(111) and NiO(111) single crystal surfaces.

A. Bikogiannakis, F. Xydas, A. Stylla, S. Tsatsos, G. Kyriakou

Abstract - Poster

38th Panhellenic Conference on Solid State Physics and Materials Science. Ioannina, 15-18 September 2024.