Curriculum Vitae
Research and Scientific Activity
Dr George Avgouropoulos
Last updated: January 2017

#### **BRIEF CURRICULUM VITAE**

#### **PERSONAL**

Name/Surname: George Avgouropoulos

Father's name: Athanasios

Mother's name: Harikleia

**Date of birth:** 11/07/1974

**Place of birth:** Athens

Nationality: Hellenic

Marital status: Married (two children)

**Home address:** Andrea Papandreou 13, Patras, GR-26332

Tel.: +30 2611 110735, Mobile: +30 6973216076

Office address (1): Department of Materials Science

University of Patras, Rio, GR-26504, Patras, Greece

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Office address (2): Foundation for Research and Technology-Hellas (FORTH)

Institute of Chemical Engineering Sciences (ICE-HT)

P.O. Box 1414, Stadiou Str., Platani-Rio

GR - 26504 Patras, Greece

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E-mail: geoavg@iceht.forth.gr

#### **EDUCATION**

1992-1997 University of Patras, Patras, Greece,

Diploma in Chemical Engineering, October 1997, Grade: 7.03/10.00

Diploma Thesis: "In vitro calcification of bioprosthetic heart valves"

Advisor: Prof. P.G. Koutsoukos

1997-2000 Department of Chemical Engineering, University of Patras & FORTH/ICE-HT,

Patras, Greece

M.Sc. in Energy and Environment, University of Patras

*Thesis*: "CuO-CeO<sub>2</sub> catalysts for application in fuel processors"

Advisor: Prof. X.E. Verykios

1997-2003 Department of Chemical Engineering, University of Patras & FORTH/ICE-HT,

Patras, Greece

Ph. D in Chemical Engineering, University of Patras (Date of Ph. D defense:

July 2003)

Thesis: "Development of a catalytic process for the selective catalytic oxidation

of CO in the presence of excess hydrogen"

Advisor: Prof. X.E. Verykios

#### FELLOWSHIPS/AWARDS/DISTINCTIONS

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

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

Greece)

Jun. 2006 The paper No. 3 (G. Avgouropoulos et al. Catal. Today 75

(2002) 157-167", has been recognised in the "Top-50 most cited

articles" as published in in Elsevier's Catalysis journals 2001

2005 (as cited by Scopus)

Jun. 2007 The paper No. 3 (G. Avgouropoulos et al. Catal. Today 75

(2002) 157-167", has been recognised in the "Top-50 most cited

articles" as published in in Elsevier's Catalysis journals 2002

2006 (as cited by Scopus)

Jun. 2008 The paper No. 4 (G. Avgouropoulos et al. Appl. Catal. A: Gen.

244 (2003) 155-167", has been recognised in the "Top-50 most

cited articles" as published in in Elsevier's Catalysis journals

2003-2007 (as cited by Scopus)

Sep. 2014 Best poster award for the work: "Pt/TiO<sub>2</sub> and Pt/CeO<sub>2</sub>

nanostructured materials for fuel cell applications" presented by

A. Paxinou (post-graduate student under my supervision) at the

30<sup>th</sup> Panhellenic Conference on Solid-State Physics and Materials

Science, Heraklion, Crete, Greece, 21-24 September, 2014-

Jul. 2016 Young Researcher Award given to P. Angelopoulou (Ph.D.

student under my supervision) for best oral presentation of the

work: "Combustion-synthesized LiMn-based spinel

nanostructures as cathode materials for lithium-ion batteries

nanostructured materials for fuel cell applications" during the

13th International Conference on Nanosciences &

Nanotechnologies (NN16)

### **EMPLOYMENT/OCCUPATION**

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

Jul. 2003 – today Collaborating researcher of FORTH/ICE-HT, Patras, Greece

Sept. 2005 – Jul. 2010 Assistant Professor, Department of Agricultural Products

Technology, School of Agricultural Technology, Technological

Educational Institution of Kalamata, Greece

Oct. 2008 – Aug. 2013 Lecturer (fixed term), Department of Materials Science

University of Patras, Greece

Sept. 2009 – Dec. 2009 Consultant of ADVENT TECHNOLOGIES S.A. (development

of innovative materials for fuel cells)

Jan. 2014 – Sep. 2016 Lecturer in the field of: "Materials engineering in

microphase-nanophase or/and molecular or/and biomolecular

materials or/and devices – experimental direction"

Oct. 2016 - today

Department of Materials Science, University of Patras, Greece **Assistant Professor** in the field of: "Materials engineering in
microphase-nanophase or/and devices – experimental direction"

Department of Materials Science, University of Patras, Greece

#### TEACHING EXPERIENCE

### **Undergraduate Programs**

- "Electronic Materials Production Processes" (teaching assistant), core course of 3<sup>rd</sup> year, Chemical Engineering Department, University of Patras (1997-1998).
- "Organic Chemistry Laboratory", (teaching assistant), core course of 2<sup>nd</sup> year, Chemical Engineering Department, University of Patras (1998-2000).
- "Polymers Laboratory" (teaching assistant), core course of 3<sup>rd</sup> year, Chemical Engineering Department, University of Patras (1998-2000).
- "Physicochemical & Instrumental Analysis of Vegetative Products" core course of 2<sup>nd</sup> year, Department of Agricultural Products Technology, School of Agricultural Technology, Technological Educational Institution of Kalamata (2005-2010).
- "Topics in Industrial and Technological Applications of Materials I", optional course of 4<sup>th</sup> year, Department of Materials Science, University of Patras (winter semesters 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014).
- "Topics in Industrial and Technological Applications of Materials II", optional course of 4<sup>th</sup> year, Department of Materials Science, University of Patras (spring semesters 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013).
- "Materials Science Laboratory III", core course of 2<sup>nd</sup> year, Department of Materials Science, University of Patras (spring semesters 2008/2009, 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015/2016).
- "Physical Chemistry Laboratory", core course of 3<sup>nd</sup> year, Department of Materials Science, University of Patras (winter semesters 2009/2010, 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015, 2015/2016, 2016/2017).
- "Materials Science Laboratory I", core course of 1<sup>st</sup> year, Department of Materials Science, University of Patras (spring semesters 2010/2011, 2012/2013).
- "Materials and Environment", optional course of 4<sup>th</sup> year, Department of Materials Science, University of Patras (spring semesters 2010/2011, 2011/2012, 2013/2014,

- 2014/2015, 2015/2016).
- "Chemistry III", core course of 3<sup>rd</sup> year, Department of Materials Science, University of Patras (winter semesters 2010/2011, 2011/2012, 2012/2013).
- "Physics Laboratory II", core course of 1<sup>st</sup> year, Department of Materials Science, University of Patras (spring semester 2011/2012).
- "Chemistry Laboratory I", core course of 1<sup>st</sup> year, Department of Materials Science, University of Patras (winter semesters 2012/2013, 2013/2014, 2014/2015, 2015/2016).
- "Chemistry I", core course of 1<sup>st</sup> year, Department of Materials Science, University of Patras (winter semester 2016/2017).
- "Materials for Renewable Energy", optional course of 4<sup>th</sup> year, Department of Materials Science, University of Patras (spring semesters 2013/2014, 2014/2015, 2015/2016).
- "Physical Chemistry", core course of 2<sup>nd</sup> year, Department of Materials Science, University of Patras (winter semesters 2014/2015, 2015/2016, 2016/2017)
- Supervisor of several research diploma thesis (>15)

#### **Postgraduate Programs**

- "Environmental Applications & Impacts of Nanotechnology", optional course of Interdisciplinary Postgraduate Program on "Environmental Sciences", University of Patras (winter semester 2015/2016)
- "Design, Synthesis and Processing of Advanced Materials", core course of 1<sup>st</sup> year,
   Postgraduate Program of Materials Science Department, University of Patras (spring semester 2014/2015)
- Supervisor of the Master Diploma Thesis of Pinelopi Angelopoulou, "Development of Li-Mn spinel nanostructures for energy applications", Department of Materials Science, University of Patras, 2015.
- Supervisor of the Master Diploma Thesis of Alexandra Paxinou, "Development of Pt/CeO<sub>2</sub> and Pt/TiO<sub>2</sub> nanostructured catalysts for the production of hydrogen from methanol", Department of Materials Science, University of Patras, 2015.

## **Other Programs**

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

#### PROFESSIONAL SOCIETIES AND ACTIVITIES

Reviewer in 23 international journals (ISI-Journal Citation Reports 2015):

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

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... of Springer ...
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Catalysis Letters,

... of ACS ...

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

- Romanian Research Council reviewer
- Hong-Kong Research Council reviewer
- Greek GSRT reviewer
- Editorial Board Member, The Open Environmental Engineering Journal (Bentham Science), 2008-
- Editorial Board Member, FRONTIERS, 2008-
- Editor of Book: "Environmental catalysis over gold-based materials", RSC, August 2013.
- Technical Chamber of Greece
- Association of Greek Chemical Engineers
- Hellenic Catalysis Society
- Session Chair, 4<sup>th</sup> EFCATS School on Catalysis, St. Petersburg, Russia, 2006.
- Session Chair, 9<sup>th</sup> Panhellenic Catalysis Symposium, Leykada, Greece, 2006.
- Member of the Organizing Committee, Meeting for Materials Science & Industry, 10 years of operation of the Department of Materials Science, Patras, Greece, June 1<sup>st</sup>, 2010.
- Session Chair, XIX International Conference on Chemical Reactors, September 5-9, 2010,
   Vienna, Austria.

- Session Chair, 12<sup>th</sup> Panhellenic Catalysis Symposium, Chania, Greece, 2012.
- Member of the Scientific Committee, 12° Panhellenic Catalysis Symposium, Chania, Greece, 2012.
- Member of the Scientific Committee, 13<sup>th</sup> Panhellenic Catalysis Symposium, Palaios Agios Athanasios Pellas, Greece, 2014.
- Session Chair, 10<sup>th</sup> Panhellenic Conference on Chemical Engineering, Patras, Greece, 2015.
- Member of the Scientific Committee, "Innovative Manufacturing Engineering & Energy International Conference, IManEE 2016, Kallithea Chalkidiki, Greece, 2016
- Member of the Scientific Committee, 1<sup>4th</sup> Panhellenic Catalysis Symposium, Patras, Greece, 2016.
- Member of the Organizing Committee, 14<sup>th</sup> Panhellenic Catalysis Symposium, Patras, Greece, 2016.
- Session Chair, EMN Dubai Meeting, Energy Materials Nanotechnology, Dubai, United Arab Emirates, 2016.

#### **ADMINISTRATIVE ACTIVITIES**

- Member of the General Assembly in the Department of Materials Science (University of Patras, 2014-today)
- Member of several committees in the Department of Materials Science (University of Patras): Coordination of Research Proposals, Health & Safety, Public Relations and Promotion (Seminars coordinator), Infrastructure and Laboratory Operation (2015-today)
- Member of Interdisciplinary Committee of Interdisciplinary Postgraduate Program on "Environmental Sciences", University of Patras (2015-today)

#### **INVITED TALKS**

- Nov. 2007 "Copper-based catalysts for methanol processors", Institute of Catalysis, Bulgarian Academy of Sciences, Sofia Bulgaria, 26 November 2007.
- Sept. 2010 "Development of an Internal Reforming Methanol Fuel Cell: Concept,
   Challenges and Opportunities", Keynote presentation, XIX International
   Conference on Chemical Reactors, September 5-9, 2010, Vienna, Austria.

- Nov. 2014 "Catalytic and Technological Aspects of Reforming Methanol to Electricity Inside a Fuel Cell", Keynote presentation, 2014 AIChE Annual Electricity Inside a Fuel Cell", Keynote presentation, 2014 AIChE Annual Meeting, November 16-21, 2014, Atlanta, USA.
- Apr. 2016 "Technological aspects of internal reforming methanol fuel cells for portable applications", Invited, EMN Dubai Meeting, Energy Materials Nanotechnology, Dubai, United Arab Emirates, April 1-4, 2016.

### **RESEARCH ACTIVITY**

- (A) Synthesis and characterization of nanomaterials
- (B) Heterogeneous nanocatalysts
- (C) Alternative energy sources: Catalytic hydrogen technologies
- (D) Environmental catalytic chemical processes
- (E) Development of Internal Reforming Methanol Fuel Cell systems
- (F) Development of nanostructured electrodes for Li-ion batteries
- Nanomaterials: Synthesis and characterization
  - Preparation of nanostructured oxides (especially mixed oxides CuCeO<sub>x</sub> and spinel oxides CuMnO<sub>x</sub>) and precious metal-based catalysts (i.e. Au/Fe<sub>2</sub>O<sub>3</sub>, Au/CeO<sub>2</sub>, Pt/CeO<sub>2</sub>, Pt/Al<sub>2</sub>O<sub>3</sub> and (Pt,Au)/CNTs) and LiMn<sub>2</sub>O<sub>4</sub>-based nanostructured spinels via various chemical methods (impregnation, coprecipitation, sol-gel, hydorthermal and especially combustion methods). Materials characterization by atomic adsorption spectroscopy (AAS), N<sub>2</sub> adsorption, X-ray powder diffraction (XRD), electron microscopy (TEM, SEM), X-ray photoelectron spectroscopy (XPS), thermogravimetric analysis (TGA), electrochemical impedance spectroscopy (EIS), polarization measurements, transient-isotopic methods (SSITKA) and temperature-programmed methods (TPR, TPD). (Published papers 1-41).
- Catalytic processes for the production and purification of hydrogen for fuel cell applications: a) Production of hydrogen via steam reforming of methanol, b) Water-gas shift reaction, c) Removal of CO from hydrogen-rich mixtures via preferential CO oxidation. (Published papers 1, 3, 4, 5, 7, 9, 11-15, 17-29, 32, 33, 34, 36, 37, 39, 40).
- Environmental catalysis for air pollution control (CO and VOCs abatement): Catalytic oxidation of CO and ethanol. (Published papers 1, 10, 16, 31, 32).
- Development of a single methanol-fuelled power unit (Internal Reforming Alcohol Fuel

*Cell) based on a methanol reformer and a high temperature PEM fuel cell.* Incorporation of a methanol reforming catalyst into the anodic compartment (bi-functional anode) of a high-temperature, polymer electrolyte fuel cell (HT-PEMFC), so that methanol reforming takes place inside the fuel cell stack (internal reforming), (Published papers 28, 33, 34, 35, 37, 39, 40).

## PARTICIPATION IN RESEARCH PROJECTS (1998-today)

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

- EPAN E-25 entitled "**Development of a methanol fuelled fuel cell system**" (01-07-2004 to 31-10-2005)
- HY2SEPS entitled "Hybrid hydrogen-carbon dioxide separation systems" (01-02-2006 to 31-05-2008)
- APOLLON-B entitled "Polymer electrocatalysts and non noble metal electrocatalysts for high temperature PEM fuel cells" (15-09-2008 to 31-07-2009)
- IRAFC (senior researcher; total budget: 2.53 m€) entitled "Development of an Internal Reforming Alcohol High Temperature PEM Fuel Cell Stack" (01-01-2010 to 30-06-2013)
- IRMFC (<u>scientific coordinator</u>; total budget: 3.26 m€) entitled "Development of a Portable Internal Reforming Methanol High Temperature PEM Fuel Cell System" (01-05-2013 to 31-10-2016

#### PUBLICATIONS/PRESENTATIONS

A. Publications in peer-reviewed international journals: 41

Citations (Scopus, January 2017): 2832 (no self-citations: 2610)

h index (Scopus, January 2017):

B. Presentations-publications in international conferences: 46

C. Presentations-publications in national conferences: 37

D. Patents: 2

E. Books (book chapters):

F. Thesis: 3

#### A. PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS

 G. Avgouropoulos, T. Ioannides, H. Matralis, J. Batista, S. Hocevar, "CuO – CeO<sub>2</sub> mixed oxide catalysts for the selective oxidation of carbon monoxide in excess hydrogen" Catal. Lett. 73 (2001) 33-40.

Impact factor: 2.294, Times cited: 217

Second most cited article among the research articles published in Catalysis Letters in 2001.

 A. Ristic, <u>G. Avgouropoulos</u>, T. Ioannides, V. Kaucic, "Investigation of catalytic activity of framework and extraframework cobalt and manganese in MeAPO-34 prepared from fluoride medium"

Stud. Surf. Sci. Catal. 135 (2001) 314.

{Impact factor: 0.307}.

3. <u>G. Avgouropoulos</u>, T. Ioannides, C. Papadopoulou, J. Batista, S. Hocevar, H. Matralis, "A comparative study of  $Pt/\gamma$ - $Al_2O_3$ ,  $Au/\alpha$ - $Fe_2O_3$  and CuO- $CeO_2$  catalysts for the selective oxidation of carbon monoxide in excess hydrogen"

Catal. Today 75 (2002) 157-167.

Impact factor: 4.312, Times cited: 410

Most cited article among the research articles published in Catal. Today in 2002.

Recognised in the "Top-50 most cited articles" as published in Elsevier's Catalysis Journals 2001-2005 and 2002-2006 (as cited by Scopus).

4. **G. Avgouropoulos**, T. Ioannides, "Selective CO oxidation over CuO-CeO<sub>2</sub> catalysts prepared via the urea-nitrate combustion method"

Appl. Catal. A: Gen. 244 (2003) 155-167.

Impact factor: 4.012, Times cited: 397

Most cited article among the research articles published in Appl. Catal. A in 2003. Recognised in the "Top-50 most cited articles" as published in Elsevier's Catalysis Journals 2003-2007 (as cited by Scopus).

5. J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, "Production of hydrogen via combined steam reforming of methanol over CuO-CeO<sub>2</sub> catalysts"

Catal. Commun. 5 (2004) 231-235.

Impact factor: 3.389, Times cited: 77

Featured on the ScienceDirect TOP25 Hottest Articles (2004) within Catal.

Commun.

Fourth most cited article among the research articles published in Catal. Commun. in 2004.

6. A. Machocki, T. Ioannides, B. Stasinska, W. Gac, <u>G. Avgouropoulos</u>, D. Delimaris, W. Grzegorczyk, S. Pasieczna, "Manganese-lanthanum oxides modified with silver for the catalytic combustion of methane"

J. Catal. 227 (2004) 282-296.

Impact factor: 7.354, Times cited: 169

7. **G. Avgouropoulos**, T. Ioannides, H. Matralis, "Influence of the preparation method on the performance of CuO-CeO<sub>2</sub> catalysts for the selective oxidation of CO"

Appl. Catal. B: Environ. 56 (2005) 87-93.

Impact factor: 8.328, Times cited: 255

Third most cited article among the research articles published in Appl. Catal. B in 2005.

8. **G. Avgouropoulos**, T. Ioannides, "CO tolerance of Pt and Rh catalysts: effect of CO in the gas phase oxidation of H<sub>2</sub> over Pt and Rh supported catalysts"

Appl. Catal. B: Environ. 56 (2005) 77-86.

Impact factor: 8.328, Times cited: 28

9. J. Papavasiliou, G. Avgouropoulos, T. Ioannides, "Steam reforming of methanol over

copper-manganese spinel oxide catalysts"

Catal. Commun. 6 (2005) 497-501.

Impact factor: 3.389, Times cited: 72

Featured on the ScienceDirect TOP25 Hottest Articles (2005) within Catal.

Commun.

10. **G. Avgouropoulos**\*, E. Oikonomopoulos, D. Kanistras, T. Ioannides, "Complete oxidation of ethanol over alkali-promoted Pt/Al<sub>2</sub>O<sub>3</sub> catalysts"

Appl. Catal. B: Environ., 65 (2006) 62-69.

Impact factor: 8.328, Times cited: 69

11. J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, "In-situ combustion synthesis of structured Cu-Ce-O and Cu-Mn-O catalysts for the production and purification of hydrogen"

Appl. Catal. B: Environ. 66 (2006) 168-174.

Impact factor: 8.328, Times cited: 73

Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Appl. Catal. B.

12. **G. Avgouropoulos**, T. Ioannides, "Effect of synthesis parameters on catalytic properties of CuO-CeO<sub>2</sub>"

Appl. Catal. B: Environ. 67 (2006) 1-11.

Impact factor: 8.328, Times cited: 157

Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Appl. Catal. B.

13. J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, "Effect of dopants on the performance of CuO-CeO<sub>2</sub> catalysts in methanol steam reforming"

Appl. Catal. B: Environ. 69 (2007) 226-234.

Impact factor: 8.328, Times cited: 75

14. **G. Avgouropoulos**\*, J. Papavasiliou, V. Idakiev, T. Tabakova, T. Ioannides, "A comparative study of ceria-supported gold and copper oxide catalysts for preferential CO oxidation reaction"

Chem. Eng. J. 124 (2006) 41-45.

Impact factor: 5.310, Times cited: 74

Featured on the ScienceDirect TOP25 Hottest Articles (2006) within Chem. Eng. J.

T. Tabakova, V. Idakiev, J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, "Effect of additives on the WGS activity of combustion synthesized CuO/CeO<sub>2</sub> catalysts"
 Catal. Commun. 8 (2007) 101-106.

Impact factor: 3.389, Times cited: 72

16. M. Konsolakis, M. Vrontaki, <u>G. Avgouropoulos</u>, T. Ioannides, I.V. Yentekakis, "Novel doubly-promoted catalysts for the lean NO<sub>x</sub> reduction by H<sub>2</sub> + CO: Pd(K)/Al<sub>2</sub>O<sub>3</sub>-(TiO<sub>2</sub>)"

Appl. Catal. B: Environ. 68 (2006) 59-67.

Impact factor: 8.328, Times cited: 15

17. P. Panagiotopoulou, J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, D.I. Kondarides, "Water-gas shift activity of doped Pt/CeO<sub>2</sub> catalysts"

Chem. Eng. J. 134 (2007) 16-22.

Impact factor: 5.310, Times cited: 102

Featured on the ScienceDirect TOP25 Hottest Articles (2007) within Chem. Eng. J.

18. <u>G. Avgouropoulos</u>, T. Ioannides, "Adsorption and reaction of CO on CuO-CeO<sub>2</sub> catalysts prepared by the combustion method"

Catal. Lett. 116 (2007) 15-22.

Impact factor: 2.307, Times cited: 22

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

J. Catal. 251 (2007) 7-20.

Impact factor: 7.354, Times cited: 86

20. **G. Avgouropoulos\***, J. Papavasiliou, T. Ioannides, "PROX reaction over CuO-CeO<sub>2</sub> catalyst with reformate gas containing methanol"

Catal. Commun. 9 (2008) 1656-1660.

Impact factor: 3.389, Times cited: 16

21. **G. Avgouropoulos\***, M. Manzoli, F. Boccuzzi, T. Tabakova, J. Papavasiliou, T. Ioannides, V. Idakiev, "Catalytic performance and characterization of Au/doped ceria catalysts for the preferential CO oxidation reaction"

J. Catal. 256 (2008) 237-247.

Impact factor: 7.354, Times cited: 106

Featured on the ScienceDirect TOP25 Hottest Articles (2008) within J. Catal.

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

Impact factor: 0.349, Times cited: 1

23. M. Manzoli, <u>G. Avgouropoulos</u>, T. Tabakova, J. Papavasiliou, T. Ioannides, F. Boccuzzi, "Preferential CO oxidation reaction in H<sub>2</sub>-rich gas mixtures over Au/doped ceria catalysts"

Catal. Today 138 (2008) 239-243.

Impact factor: 4.312, Times cited: 41

Featured on the ScienceDirect TOP25 Hottest Articles (2009) within Catal. Today.

24. **G. Avgouropoulos**, T. Ioannides, "TPD and TPSR study of CO interaction with CuO-CeO<sub>2</sub> catalysts"

J. Mol. Catal. A 296 (2008) 47-53.

Impact factor: 3.958, Times cited: 19

25. J. Papavasiliou, <u>G. Avgouropoulos</u>, T. Ioannides, "Steady-state isotopic transient kinetic analysis of steam reforming of methanol over Cu-based catalysts"

Appl. Catal. B: Environ. 88 (2009) 490-496.

Impact factor: 8.328, Times cited: 26

26. **G. Avgouropoulos\***, "Isotopic transient study of methanol decomposition over noble metal/ceria"

Catal. Commun. 10 (2009) 682-686.

Impact factor: 3.389, Times cited: 2

27. **G. Avgouropoulos**\*, J. Papavasiliou, T. Ioannides, "Hydrogen production from methanol over combustion-synthesized noble metal/ceria catalysts"

Chem. Eng. J. 154 (2009) 274-280.

Impact factor: 5.310, Times cited: 21

28. **G. Avgouropoulos**\*, J. Papavasiliou, M. Daletou, T. Ioannides, J. Kallitsis, S. Neophytides, "Reforming methanol to electricity in a high temperature PEM fuel cell"

Appl. Catal. B: Environ. 90 (2009) 628-632.

Impact factor: 8.328, Times cited: 31

29. T. Tabakova, **G. Avgouropoulos**, J. Papavasiliou, M. Manzoli, F. Boccuzzi, K. Tenchev, F. Vindigni, T. Ioannides, "CO-free hydrogen production over Au/CeO<sub>2</sub>–Fe<sub>2</sub>O<sub>3</sub> catalysts: Part 1. Impact of the support composition on the performance for the preferential CO oxidation reaction"

Appl. Catal. B: Environ. 101 (2011) 256-265.

Impact factor: 8.328, Times cited: 58

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

Impact factor: 3.975, Times cited: 45

31. T. Skaltsas, <u>G. Avgouropoulos</u>, D. Tasis, "Impact of the fabrication method on the physicochemical properties of carbon nanotube-based aerogels"

Micropor. Mesopor. Mater. 143 (2011) 451-457.

Impact factor: 3.349, Times cited: 19

32. **G. Avgouropoulos**, T. Ioannides, "Kinetics of CO and H<sub>2</sub> oxidation over CuO–CeO<sub>2</sub> and CuO catalysts"

Chem. Eng. J. 176-177 (2011) 14-21.

Impact factor: 5.310, Times cited: 7

33. <u>G. Avgouropoulos\*</u>, T. Ioannides, J.K. Kallitsis, S. Neophytides, "Development of an internal reforming alcohol fuel cell: Concept, challenges and opportunities"

Chem. Eng. J. 176-177 (2011) 95-101.

Impact factor: 5.310, Times cited: 15

34. J. Papavasiliou, <u>G. Avgouropoulos\*</u>, T. Ioannides, "CuMnOx catalysts for internal reforming methanol fuel cells: Application aspects"

Int. J. Hydrogen Energy 37 (2012) 16739-16747.

Impact factor: 3.205, Times cited: 10

- 35. **G. Avgouropoulos\***, S. Neophytides, "Performance of internal reforming methanol fuel cell under various methanol/water concentrations"
  - J. Appl. Electrochem. 42 (2012) 719-726.

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