

CURRICULUM VITAE

Name : Despina Vamvuka
Date of Birth : 20th June, 1958
Place of Birth : Hania, Greece
Nationality : Greek
Social Status : Widow with two children
Address : Technical University of Crete
Department of Mineral Resources Engineering
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EDUCATION

Diploma (First Honours Degree, 10) in Chemical Engineering and MSc Degree in Organic Chemical Technology, Department of Chemical Engineering, University "Traian Vuia" of Timisoara, Rumania 1982

MSc Degree in Advanced Chemical Engineering, Department of Chemical Engineering, University of Manchester Institute of Science and Technology (UMIST), U.K. 1983
Title of MSc Thesis: " Devolatilization and Combustion Characteristics of Low Rank Coals".
Supervisor: Prof. E.T. Woodburn

Ph.D Degree in Chemical Engineering, Department of Chemical Engineering, UMIST, U.K. 1988
Title of Ph.D. Thesis: " Thermogravimetric Analysis Studies of Low Rank Coals and Modelling of Combustion and Gasification Processes in Entrained Systems".
Supervisor: Prof. E.T. Woodburn

PROFESSIONAL EXPERIENCE

Teaching Assistant and Special Demonstrator, Department of Chemical Engineering, UMIST, UK 1984-1988

Post Doctor 1989-1991
Institute of Chemical Engineering and High Temperature Chemical Processes, University of Patras, Greece

Accosiate Teaching Scientist 1991-1992

Lecturer 1993-1995

Department of Mineral Resources Engineering, Technical University of Crete, Greece

Visiting Researcher 1994

Department of Ferrous Metallurgy, RWTH Aachen, Germany.

Assistant Professor 1996-2004

Associate Professor 2005-2011

Professor 2012-Present

Department of Mineral Resources Engineering,
Technical University of Crete, Greece

Teaching Subjects to Undergraduate Students: Coal Beneficiation, Technologies for the Exploitation of Solid Fuels and Applied Fluid Mechanics.

Teaching Subjects to Postgraduate Students: Coal Beneficiation, Clean Coal Technologies, Reduction of Emissions from Power Plants, Techniques of Physical and Chemical Processes, Physicochemical Processes, Environmental Management in Mining Industry and in Energy Production , Biomass-Bioenergy-Environment, Environmental Control in Energy Production. Air Pollution.

Supervisor of 30 DiplomaThesis, 15 MSc Thesis and 2 PhD Thesis

ADMINISTRATIVE POSITIONS

Member of the General Assemblies of the Departments of Mineral Resources Engineering and Environmental Engineering	1993-Present
Director of the Laboratory of Solid Fuels Beneficiation and Technology of the Department of Mineral Resources Engineering	1993-Present
Member of the Senate of the Technical University of Crete	1997-1998 2005-2006
Member of the Committee of Studies of the Department of Mineral Resources Engineering	1998-Present
Member of the Board of Directors of the Greek Combustion Institute	2001-Present
Member of the General Assembly for the Postgraduate Program “Environmental quality control and management” of the Departments of Mineral Resources Engineering and Environmental Engineering	2004-Present
Member of the Committees of Energy and Environment of the Greek Chamber of Technology (West Crete)	2007-Present

PROFESSIONAL MEMBERSHIP

Member of the Greek Association of Chemical Engineers	1983-Present
Member of the Greek Chamber of Technology	1983-Present
Member of the Greek Combustion Institute	1996-Present
Member of the American Chemical Society	2000-2011

GRANTS-HONORS

Grants

Grant from UMIST, Great Britain	1983-1988
Grant from COMMET STRAND BC, European Community	1994

Invited Lecturer

Invited Lecturer in Various Universities and Associations	1994-2002
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Member of Organising Committees

Member of the Organising Committee for the International Conference "Restoration and Protection of the Environment III", Hania, Greece.	August 1996
Member of the Organising Committee for the 3 rd International Conference of the Greek Section of the Combustion Institute, Patras, Greece.	November 2003
Chairman and Member of the Organising Committee for the 3 rd European Combustion Meeting, ECM	April 2007

Member of Scientific Committees

Member of the Advisory Board of the Mediterranean Combustion Symposium, Antalya, Turkey.	June 1999.
Member of the Advisory Board of the 1 st International Conference AMIREG Hania, Greece	June 2004
Member of the Advisory Board of the 2 nd International Conference AMIREG Hania, Greece	September 2006
Member of the Environmental Committee of the Technical University of Crete	2007-Present
Member of the Biomass Committee of the Technological Biofuels Platform for Thesalia	2007-Present
Member of the Hydrogen Production Committee of the Hellenic Platform For Hydrogen and Fuel Cells	2007-Present
Member of the Advisory Board of the 3 rd International Conference AMIREG Athens, Greece	September 2009
Member of the Scientific Committee "Regional Steering Committee of the region of Chania"(Program Intelligent Energy Europe)	2010-Present

Editorial Board

Member of the Editorial Board of the International Scientific Journal "International Journal of Energy and Environment" published by the International Energy and Environment Foundation	2009-Present
Member of the Editorial Board of the International Scientific Journal "Energy Science and Technology" published by the Canadian Research and Development Center of Sciences	2011-Present
Member of the Editorial Board of the "Scientific World Journal" published by Hindawi Publishing Corporation	2012-Present

Referee

Referee of 22 International Scientific Journals "Energy and Fuels", "Industrial and Engineering Energy Research", "Environmental Science and Technology" published by the American Chemical Society, "Fuel Processing Technology", "J. of Analytical and Applied Pyrolysis", "Bioresource Technology", "Applied Energy", "Journal of Cleaner Production", "Renewable Energy", "Biomass and Bioenergy", published by Elsevier, "Energy, The International Journal", published by Pergamon, "Chemical Engineering Communications", "Combustion Science and Technology", published by Taylor & Francis, "The Canadian Journal of Chemical Engineering", published by the Canadian Society for Chemical Engineers, "J. of Zhejiang University Science", published by Zhejiang University Press, "J. of the Chinese Institute of Chemical Engineers", "Biobased Materials and Bioenergy" published by American Scientific Publishers, "J. of Molecular Science", published by MDPI, Switzerland, "Chinese J. of Oceanology and Limnology" published by Science Press and Springer, "Journal of Energy and Power" published by Professional Engineering Publishing, U.K.,

“BioResources” published by NC. State University, USA and “J. of Combustion” published by Hindawi Publishing Corporation, USA	1998-Present
Referee of National Research Programmes	2001-Present
Referee of GSRT (General Secretariat of Research & Technology)	2004-Present

RESEARCH PROGRAMS

1.	Principal Researcher Development of Improved Hydrogenation Catalysts for Coal-derived Liquids. Source of Funding: EC (Joule Programme)	1989-1990
2.	Principal Researcher Development of Partial Catalytic Oxidation of Methane for the Production of C ₂ Hydrocarbons. Source of Funding: EC (Joule Programme)	1990-1991
3.	Coordinator Qualitative Upgradement of Carbonaceous Seams from Komanos Mine by Selective Grinding. Source of Funding: ELKE (Technical University of Crete).	1993-1994
4.	Contractor Study on Combustion of Pulverized Coal and Plastic Wastes under conditions simulating Blast Furnace Injection. Source of Funding: COMMET STRAND BC, EC.	1994
5.	Contractor Increase of the Local Potential for the Recycling of Used Oils Source of Funding: GSRT (Programme EPET II)	1995-1998
6.	Researcher Rational Use of Energy in Agriculture - The Case of Olive Oil Residues Source of Funding: 17th G.D. EC (Save Programme)	1996-1998
7.	Coordinator Revamping the Existing Undergraduate Curriculum of the Dept. of Mineral Resources Engineering and its Tentative Application. Source of Funding: 2nd Support Framework of the European Union	1997-2000
8.	Contractor Combustion Behaviour of Clean Fuels in Power Generation Source of Funding: EC (ENERGY Programme)	2000-2003
9.	Researcher Advanced Demineralization of Coal Source of Funding: EC (ECSC Programme)	2000-2004
10.	Contractor Study on the Use of Greek Lignites as Absorbing Materials for Retention of Gaseous Emissions Source of Funding: EC (EPAN Programme)	2003-2006
11.	Contractor Revamping the Undergraduate Curriculum of the Dept. of Mineral Resources Engineering Source of Funding: Greek Ministry of Education (Programme EPEAEK)	2003-2005
12.	Researcher Bioenergy chains from perennial crops in S. Europe Source of Funding: EC (ENK6-CT2001-00524)	2001-2005
13.	Coordinator “Nuclear” Energy from Peaches Source of Funding: EC and Region of Crete (CRINNO Programme)	2005-2006
14.	Contractor	

- Revamping the Undergraduate Curriculum of the Dept. of Mineral Resources Engineering
Source of Funding: Greek Ministry of Education (Programme EPEAEK) 2006-2008
15. Contractor
Prototype Unit for Biomass Combustion
Source of Funding: GSRT (Programme Regional Innovation Pole of Crete) 2006-2008
16. Researcher
Demonstration of large scale biomass co-firing and supply chain integration
Source of Funding: EC (FP7 DEBCO) 2008-2011
17. Contractor
Economic Modeling and Assessment of CCS (Carbon Capture and Sequestration) Implementation in Europe
Source of Funding: GSRT (Programme FENCO-ERA.NET) 2009-2010
18. Contractor
Strategies to improve and protect soil quality from the disposal of olive oil mills' wastes in the Mediterranean region
Source of Funding: EC (LIFE07/ENV/GR/000280) 2009-2012
19. Contractor
Best practices for agricultural WASTEs (AW) treatment and REUSE in the Mediterranean countries
Source of Funding: EC (LIFE10/ENV/GR/594) 2011-2015
20. Contractor
Sustainable strategies for the improvement of seriously degraded agricultural areas: The example of Pistachia vera L.
Source of Funding: EC (LIFE11/ENV/GR/951) 2012-2016
21. Contractor
Development of an integrated Methodology for the management, treatment and valorisation of hazardous waste (WasteVal)
Source of Funding: Greek Ministry of Education (Program Thalys) 2012-2016

PUBLICATIONS

Articles in International Scientific Journals

1. M.Koussathana, D.Vamvuka, H.Economou and X.Verykios, "Slurry-phase hydrogenation of aromatic compounds over supported noble metal catalysts", *Applied Catalysis*, **77** (2), 283-301 (1991).
2. M.Koussathana, D.Vamvuka, M.Tsapatsis and X.Verykios, "Hydrogenation of aromatic compounds over noble metals dispersed on doped titania carriers", *Applied Catalysis A: General*, **80**, 99-113 (1992).
3. D.Papageorgiou, D.Vamvuka, D.Boudouvas and X.E.Verykios, "Oxidative coupling of methane to C₂ hydrocarbons over titania-based catalysts", *Catalysis Today*, **13**, 391-400 (1992).
4. A.M.Efstathiou, D.Boudouvas, D.Vamvuka and X.E.Verykios, "Kinetics of methane oxidative coupling on Zn-doped titanium oxide", *Applied Catalysis A: General*, **92**, 1-15 (1992).
5. A.M.Efstathiou, D.Boudouvas, D.Vamvuka and X.E.Verykios, "Kinetics of methane oxidative coupling on Li-doped titania catalysts", *Journal of Catalysis*, **140**, 1-15 (1993).
6. M.Koussathana, D.Vamvuka and X.Verykios, "Naphthalene hydrogenation reactivity of Rh-Re and Ru-Re formulations dispersed on doped titania carriers", *Applied Catalysis A: General*, **95**, 211-220 (1993).
7. M.Koussathana, D.Vamvuka and X.Verykios,

- "Improved hydrogenation catalysts for coal-derived liquids", *International Journal of Energy Research*, **18**, 243-250 (1994).
8. D.Papageorgiou, D.Vamvuka and X.E.Verykios,
"Oxidative coupling of methane to C₂ hydrocarbons over doped titania catalysts", *Studies in Surface Science and Catalysis*, **75**, 2269-2272 (1993).
 9. D.Vamvuka, P.R.Senior and E.T.Woodburn,
"Modelling of an entrained flow coal gasifier. Development of the model and general predictions", *Fuel*, **74(10)**, 1452-1460 (1995).
 10. D.Vamvuka and E.T.Woodburn,
"Modelling of an entrained flow coal gasifier. Effect of operating conditions on reactor's performance", *Fuel*, **74(10)**, 1461-1465 (1995).
 11. D.Vamvuka and E.T.Woodburn,
"Effect of inorganic matter on the devolatilization and combustion of low rank coals", *Technika Chronika*, **15(1-2)**, 23-33 (1995).
 12. D.Vamvuka, G.Schwanekamp and H.W.Gudenau,
"Combustion of pulverized coal with additives under conditions simulating blast furnace injection", *Fuel*, **75(9)**, 1145-1150 (1996).
 13. D.Vamvuka,
"Study on the possibility of recovering lignites from refused innerburden", *Energy Exploration and Exploitation*, **14(5)**, 439-447 (1996).
 14. D.Vamvuka,
"Thermogravimetric analysis of beneficiated low-rank coal in oxidative environment", *Mineral Wealth*, **106**, 21-28 (1998).
 15. D.Vamvuka and E.T.Woodburn,
"A model of the combustion of a single small coal particle using kinetic parameters based on thermogravimetric analysis", *Int. J. of Energy Research*, **22**, 657-670 (1998).
 16. S.Drakonaki, D.Vamvuka, E.Diamantopoulos, E.Lahaniatis,
"Leaching behaviour of lignite fly ash", *J. of Environmental Science and Health*, **A33(2)**, 237-248 (1998).
 17. D. Vamvuka,
"Gasification of coal", *Energy Exploration and Exploitation*, **17(6)**, 515-581 (1999).
 18. D. Vamvuka,
"Environmental impacts of coal utilization on the ecosystem", *Energy Exploration and Exploitation*, **17(6)**, 583-605 (1999).
 19. D.Vamvuka,
"Chemical comminution as a method of fracturing and cleaning lignites", *J. of the Institute of Energy*, **74**, 29-37 (2001).
 20. D.Vamvuka and V.Agridiotis,
"The effect of chemical reagents on lignite flotation", *International Journal of Mineral Processing*, **61**, 209-224 (2001).
 21. D. Vamvuka, E. Mistakidou, S. Drakonaki, A. Foscolos and K. Kavouridis,
"Ash quality of a beneficiated lignite from Ptolemais basin, Northern Greece", *Energy and Fuels*, **15**, 1181-1185 (2001).
 22. E. Kastanaki, D. Vamvuka, P. Grammelis and E. Kakaras,
"Thermogravimetric studies of the behaviour of lignite/biomass blends during devolatilization", *Fuel Processing Technology*, **77-78**, 159-166 (2002).
 23. D.Vamvuka and T.D. Tsoutsos,
"Energy exploitation of agricultural residues in Crete", *Energy Exploration and Exploitation*, **20(1)**, 113-121 (2002).
 24. D. Vamvuka, E. Kastanaki, P. Grammelis and E. Kakaras,
"Pyrolysis characteristics and kinetics of biomass residuals mixtures with poor coal", *Fuel*, **82**, 1949-1960 (2003).
 25. D. Vamvuka, N. Pasadakis, P. Grammelis, E. Kastanaki and E. Kakaras,
"Kinetic modeling of coal/agricultural by-product blends", *Energy and Fuels*, **17**, 549-558 (2003).

26. D. Vamvuka, E. Kastanaki and M. Lasithiotakis, "Devolatilization and combustion kinetics of low-rank coal blends from dynamic measurements", *Industrial and Engineering Chemistry Research*, **42**, 4732-4740 (2003).
27. D. Vamvuka, E. Kastanaki M. Lasithiotakis and C. Papanicolaou, "Combustion behavior of xylite/lignite mixtures", *Carbon*, **42(2)**, 351-359 (2004).
28. D. Vamvuka, C. Arvanitidis and D. Zahariadis, "Flue gas desulfurization at high temperatures. A review ", *Environmental Engineering and Science*, **21(4)**, 525-547 (2004).
29. D. Vamvuka and D. Zografos, "Predicting the behavior of ash from agricultural wastes during combustion", *Fuel*, **83(14-15)**, 2051-2057 (2004).
30. D. Vamvuka, J. Hahladakis and D. Pentari, "Leaching of toxic elements from lignite and agroresidue ashes in cultivated soils of Crete", *Energy and Fuels*, **19**, 807-812 (2005).
31. D. Vamvuka, E. Troulinos and E. Kastanaki, "The effect of mineral matter on the physical and chemical activation of low rank coal and biomass materials", *Fuel*, **85**, 1763-1771 (2006).
32. D. Vamvuka and E. Kastanaki, "A comparative reactivity and kinetic study on the combustion of coal/biomass char blends", *Fuel*, **85(9)**, 1186-1193 (2006).
33. D. Vamvuka, D. Zografos and G. Alevizos, "Control methods for mitigating biomass ash-related problems in fluidized beds", *Bioresource Technology*, **99**, 3534-3544 (2008).
34. D. Vamvuka, "Comparative fixed/fluidized bed experiments for the thermal behaviour and environmental impact of olive kernel ash", *Renewable Energy*, **34**, 158-164 (2008).
35. D. Vamvuka, N. Salpigidou, E. Kastanaki and S. Sfakiotakis, "Possibility of using paper sludge in co-firing applications", *Fuel*, **88(4)**, 637-643 (2009).
36. M. Galetakis and D. Vamvuka, "Lignite quality uncertainty estimation for the assessment of CO₂ emissions, *Energy and Fuels*, **23**, 2103-2110 (2009).
37. D. Vamvuka, M. Pitharoulis, G. Alevizos and E. Repouskou, "Ash effects during combustion of lignite/biomass blends in fluidized beds", *Renewable Energy*, **34(12)**, 2662-2671 (2009).
38. D. Vamvuka and M. Galetakis, "Carbon Dioxide Emissions from Coal-fired Power Plants in Greece in Relation to Mined Lignite Quality", *Energy and Fuels*, **24**, 1396-1401 (2010).
39. D. Vamvuka, V. Topouzi, S. Sfakiotakis, "Evaluation of production yield and thermal processing of switchgrass as a bioenergy crop for the Mediterranean region", *Fuel Processing Technology*, **91**, 988-996 (2010).
40. D. Vamvuka, G. Bandelis, "Evaluation of wood residues from Crete as alternative fuels", *International Journal of Energy and Environment*, **1(4)**, 667-674 (2010).
41. D. Vamvuka, E. Kakaras, "Ash properties and environmental impact of various biomass and coal fuels and their blends", *Fuel Processing Technology*, **92**, 570-581 (2011).
42. D. Vamvuka, S. Sfakiotakis, T. Mourouzidis, G. Bandelis, "Development of a biomass-fired combustion unit for residential heating", *Combustion Science and Technology*, **183**, 764-778 (2011).
43. D. Vamvuka, "Bio-oil, solid and gaseous biofuels from biomass pyrolysis processes-an overview, *International Journal of Energy Research*, **35(10)**, 835-862 (2011).
44. D. Vamvuka, E. Karouki, S. Sfakiotakis, "Gasification of waste biomass chars by carbon dioxide via thermogravimetry. Part I. Effect of mineral matter.", *Fuel*, **90**, 1120-1127 (2011).

45. D. Vamvuka, S. Sfakiotakis, "Effects of heating rate and water leaching of perennial energy crops on pyrolysis characteristics and kinetics", *Renewable Energy*, **36**, 2433-2439 (2011).
46. Th. Damartzis, D. Vamvuka, S. Sfakiotakis, A. Zabaniotou, "Thermal degradation studies and kinetic modelling of cardoon (*Cynara cardunculus*) pyrolysis using thermogravimetric analysis", *Bioresource Technology*, **102**, 6230-6238 (2011).
47. D. Vamvuka, E. Karouki, S. Sfakiotakis, "Gasification of waste biomass chars by carbon dioxide via thermogravimetry-Effect of catalysts", *Combustion Science and Technology*, **184**, 64-77 (2012).
48. M. Galetakis, C. Roumpos, G. Alevizos, D. Vamvuka, "Production scheduling of a lignite mine under quality and reserves uncertainty", *Reliability Engineering and System Safety*, **96**, 1611-1618 (2011).
49. D. Vamvuka, S. Sfakiotakis, "Combustion behaviour of biomass fuels and their blends with lignite", *Thermochimica Acta*, **526**, 192-199 (2011).
50. E. Karampinis, D. Vamvuka, S. Sfakiotakis, P. Grammelis, G. Itskos, E. Kakaras, "Fuel/ash characterization and thermogravimetric analysis of energy crops", *Energy and Fuels*, **26**, 269-278 (2012).
51. D. Vamvuka, S. Sfakiotakis, M. Kotronakis, "Combustion performance of orange tree residues and their blends in a fluidized bed", *Renewable Energy*, **46**, 231-237 (2012).
52. D. Vamvuka, S. Saxioni, "Investigation of slagging/fouling and environmental impact of ashes produced from co-combustion of urban wastes with lignite", *Fresenius Environmental Bulletin*, **21 (11a)**, 3345-3351 (2012).
53. D. Vamvuka, S. Sfakiotakis, K. Panopoulos, "An experimental study on the thermal valorisation of municipal and animal wastes", *IJEE*, **4**, 191-198 (2012).
54. D. Vamvuka, V. Tsamourgeli, M. Galetakis, "Study on catalytic combustion of biomass mixtures with poor coal", *Thermochimica Acta*, submitted.
55. D. Vamvuka, M. Trikouvertis, G. Alevizos, D. Pentari, "Evaluation of ashes of orange tree residues burned in a fluidized bed", under preparation.

Conference Proceedings

56. D. Vamvuka and E.T. Woodburn, "Thermogravimetric analysis studies on low rank coal", *Proceedings of the International Meeting on the Exploitation of Low Calorific Value Solid Fuels*, Ptolemais, Greece, September 1985.
57. M. Koussathana, D. Vamvuka and X. Verykios, "Improved hydrogenation catalysts for coal-derived liquids", *Proceedings of EEC Contractors' Meeting on Advanced Transport Fuels*, Palermo, Italy, October 1990.
58. D. Papageorgiou, D. Vamvuka, D. Boudouvas and X. Verykios, "Oxidative coupling of methane to C₂ hydrocarbons over titania-based catalysts", *Proceedings of EEC Contractors' Meeting on Catalytic Conversion of Methane*, Villeurbanne, France, May 1991.
59. S. Drakonaki, D. Vamvuka, E. Diamantopoulos and M. Lahaniatis, "Leaching behaviour of lignite fly ash", *Proceedings of the 8th International Symposium of Environmental Pollution and its Impact on Life in the Mediterranean Region*, Rhodes, Greece, October 1995, p.192.
60. D. Vamvuka and D. Douvris, "Demineralization of coal for reducing pollutant emissions", *Proceedings of the 3rd International Conference on the Protection and Restoration of the Environment*, Hania, Greece, August 1996, p.658-664.
61. D. Vamvuka and I. Tsamopoulos, "Lignite fragmentation method with simultaneously selective removal of inorganic matter", *Proceedings of the 1st Hellenic Chemical Engineering Scientific Conference*, Patras, May 1997, p. 689-694.
62. D. Vamvuka, E.T. Woodburn and G. Stavrakakis, "Combustion model of a fine coal particle", *Proceedings of the 1st Meeting of the Greek Section of the Combustion Institute*, Athens, 28-29 Nov., 1997, p.259-265.

63. E.Kakaras, P.Vourliotis, P.Grammelis and D.Vamvuka, "Fossil fuels combined combustion with biomass in a fluidized bed combustor", Proceedings of the Mediterranean Combustion Symposium, Antalya, Turkey, 20-25 June, 1999, p.941-953.
64. D.Vamvuka, P.Grammelis, "Combustion of coal and wastes under blast furnace conditions", Proceedings of the 2nd Meeting of the Greek Section of the Combustion Institute, Thessaloniki, 26-27 Nov., 1999, p.S3/19-25.
65. Δ. Βάμβουκα και Α. Καραλή, "Θραύση και εμπλουτισμός λιγνίτη με χημικά μέσα", Πρακτικά 3^{ου} Συνεδρίου Ορυκτού Πλούτου, Τεχνικό Επιμελητήριο Ελλάδος, Αθήνα, 2000, σ. 567-576.
66. D. Vamvuka, E. Mistakidou, S. Drakonaki, A. Foscolos and E. Kakaras, "On the quality of ash of a beneficiated lignite", Proceedings of the Open Meeting on Combustion, 23rd Event of the Italian Section of the Combustion Institute, Lacco Ameno, 22-25 May, 2000, p.III.6-9.
67. D. Vamvuka, T.Sdrolias, M. Christou and T.D. Tsoutsos, "CHP systems in Crete using biomass residues", Proceedings of the First World Conference on Biomass for Energy and Industry, Sevilla, Spain, 5-9 June, 2000, Vol.II, p. 991-994.
68. A. Dimopoulou, V. Gekas, D. Vamvuka and P. Vourliotis, «Air pollutant emissions from the power plant of Atherinolakos at Crete», Proceedings of the 5th Conference on Protection and Restoration of the Environment, Thassos Island, 3-6 July, 2000, p.961-966.
69. E. Kastanaki, D. Vamvuka, P. Grammelis and E. Kakaras, "Thermogravimetric studies of the behaviour of lignite/biomass blends during devolatilization", Proceedings of the 4th International Symposium on Coal Structure 2002, Structure and Reactivity of Carbonaceous Materials, Gliwice, Poland, 7-10 July 2002, Fuel Processing Technology, Vol.77-78, p.159-166.
70. D. Vamvuka, E. Kastanaki, P. Grammelis and E. Kakaras, "Pyrolysis characteristics and kinetics of biomass residuals by thermogravimetry", Proceedings of the 4th U.K. Conference on Coal Research and its Applications, Imperial Colledge, London, 16-18 September 2002, paper 4.5.
71. Δ. Βάμβουκα, Δ. Ζωγράφος, "Μελέτη της επίδρασης της ανόργανης ύλης στην καύση αγροτικών υπολειμμάτων από καλλιέργειες της Κρήτης σε συνθήκες ρευστοποιημένης κλίνης", Πρακτικά 4ου Πανελληνίου Επιστημονικού Συνεδρίου Χημικής Μηχανικής, Πάτρα, Εκδόσεις Τζιόλα, 2003, σ.605-608.
72. E. Kastanaki, P. Grammelis, D. Vamvuka and E. Kakaras, "A comparison of the combustion reactivity of biomass, hard coal and lignite chars", Proceedings of the European Combustion Meeting under the auspices of the Federation of the European Sections, Orléans, 25-28 October 2003, p.1-5, paper 059.
73. D. Vamvuka, E. Kastanaki, E. Kakaras and P. Grammelis, "Combustion reactivity and ash related properties of coal-wood mixtures", 3rd Meeting of the Greek Section of the Combustion Institute, University of Patras, 7-8 Nov., 2003, p.1-8, paper 2.7.
74. D. Vamvuka, M. Galetakis, F. Pavloudakis and K. Kavouridis, "Methods of upgrading and controlling the quality of lignite mined from West Macedonia Lignite Centre", Proceedings of the 1st International Conference AMIREG 2004, Chania, 7-9 June 2004, p.375-382.
75. I. Papamichael and D. Vamvuka, "Pyrolysis oil produced from biomass as a biofuel for combustion", Proceedings of the Joint Meeting of the Greek and Italian Sections of the Combustion Institute, Corfu, 17-19 June, 2004, p.1-6, paper 5.5.
76. E. Kastanaki, P. Salatino, O. Senneca and D. Vamvuka, "Thermogravimetric study of thermal and oxidative processes of a low rank Greek coal", Proceedings of the Joint Meeting of the Greek and Italian Sections of the Combustion Institute, Corfu, 17-19 June, 2004, p.1-6, paper p68.
77. P. Grammelis, E. Kakaras, G. Skodras and D. Vamvuka, "A methodological tool of biomass combustion modeling", Proceedings of the European Combustion Meeting, Louvain-la-Neuve, Belgium, 3-6 April, 2005, paper 049.
78. Δ. Δήμου, Δ. Βάμβουκα, Ν. Πασαδάκης και Γ. Ρωμανός, "Προσρόφηση αερίων ρύπων σε ενεργοποιημένους Ελληνικούς λιγνίτες", Πρακτικά 5ου Πανελληνίου Συνεδρίου Χημικής Μηχανικής, Θεσσαλονίκη, 26-28 Μαΐου, 2005, σ. 381-384.
79. D. Vamvuka and E. Mistakidou, "Predicting the effect of inorganic constituents of wood residues on boiler slagging/fouling and ash disposal", Proceedings of the 14th European Biomass Conference and Exhibition, Paris, 17-21 October, 2005, p.1328-1331.

80. M. Τζινευράκης, I. Τζαβάρα, Θ. Τσούτσος, Δ. Βάμβουκα και Κ. Ξιφάρας, “Ενεργειακό δυναμικό της βιομάζας στην Κρήτη”, 8^ο Συνέδριο για τις Ήπιες Μορφές Ενέργειας, Θεσσαλονίκη, 29-31 Μαρτίου, 2006.
81. K. Kavouridis, D. Vamvuka, M. Galetakis, “The effect of lignite quality on CO₂ emissions and cost of power production from Western Macedonia power plants”, Proceedings of the 2nd International Conference AMIREG 2006, Chania, September 2006, p. 45-50.
82. D. Vamvuka, E. Mavrou, G. Bandelis, T. Tsoutsos and I. Papamichael, “Biomass cogeneration in Europe: Economical, technical and environmental evaluation”, Proceedings of the 3rd European Combustion Meeting, Hania, Greece, 11-13 April, 2007, paper 12.11.
83. D. Vamvuka, V. Topouzi, A. Stratakis, M. Christou, E. Alexopoulou and C. Panoutsou, “Giant reed as a fuel for heat and electricity applications in Greece” Proceedings of the 15th European Biomass Conference and Exhibition, Berlin, 7-11 May, 2007, p. 777-780.
84. Th. Kalpakas, D. Vamvuka, G. Bandelis, S. Sfakiotakis and Th. Mourouzidis, “An innovative combustion unit for the energy exploitation of agricultural wastes in Greece”, Proceedings of the 12th Conference on Environment and Mineral Processing and Exhibition, Ostrava, June 2008, p.225-231.
85. C. Panoutsou, D. Vamvuka and T. Tsoutsos, “Socio-economic impacts of biomass CHP in the island of Crete”, Proceedings of the 16th European Biomass Conference and Exhibition, Valencia, 2-6 June, 2008.
86. K. Panopoulos and D. Vamvuka, “Experimental evaluation of thermochemical use of two promising biomass fuels”, Proceedings of the 4rd European Combustion Meeting, Vienna, Austria, 14-17 April, 2009, P810290.
87. D. Vamvuka, V. Topouzi, S. Sfakiotakis, D. Pentari and M. Christou, “Production yield and combustion characteristics of Cardoon grown as a potential feedstock for energy applications in Greece”, Proceedings of the 17th European Biomass Conference and Exhibition, Hamburg, 29 June-3 July, 2009, p. 1269-1272.
88. M. Galetakis, D. Vamvuka, C. Roumpos and F. Pavloudakis, “Prediction of annual CO₂ emissions of lignite mined from the South Field Mine, Greece”, Proceedings of the 3rd International Conference AMIREG 2009, Athens, 7-9 September, 2009, p.119-124.
89. D. Vamvuka, S. Sfakiotakis, “Ash disposal impacts from co-firing lignite and agricultural prunnings in Crete”, Proceedings of the International Symposium on Green Chemistry for Environment and Health, Mykonos, 27-29 September, 2010, p. 1-6.
90. D. Vamvuka, N. El Chatib, S. Sfakiotakis, “Measurements of ignition point and combustion characteristics of biomass fuels and their blends with lignite”, Proceedings of the 5th European Combustion Meeting, London, England, 28-30 June, 2011, p. 1-6.
91. D. Vamvuka, K. Panopoulos, “Experimental evaluation of thermochemical use of poultry wastes”, Proceedings of the 5th European Combustion Meeting, London, England, 28-30 June, 2011, p. 1-4.
92. D. Vamvuka, S. Sfakiotakis, G. Alevizos, M. Galetakis, “Evaluating olive tree prunnings as a secondary fuel in fluidized bed combustion-Emissions and ash effects”, International Nordic Bioenergy Conference, Finland, 5-9 September, 2011, p. 227-234.
93. D. Vamvuka, S. Saxioni, “Investigation of slagging/fouling and environmental impact of ashes produced from co-combustion of urban wastes with lignite”, 16th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, Ioannina, 24-27 September, 2011.
94. S. Techniti, K. Anastasiadou, D. Vamvuka, E. Gidaracos, “Investigating the recycling of agricultural biomass wastes in construction materials”, 4th Int. Conference on Hazardous and Industrial Waste Management, Chania-Crete, October, 2012.
95. D. Vamvuka, “Thermogravimetric study for the gasification of urban wastes”, Dibanet Smart CHP Network, Salonica, 1-2 November, 2012.
96. K. Komnitsas, D. Zaharaki, D. Vamvuka, “Factors affecting quality of compost produced from agricultural waste: assessment of risk”, Istanbul International Solid Waste, Water and Wastewater Congress, Istanbul, Turkey, May 2013.

97. C. Mihailof, E. Koytsoumpa, S. Sfakiotakis, K. Panopoulos, A. Lemonidou, D. Vamvuka, "Thermal degradation studies using thermogravimetric analysis and kinetic modeling of five novel biomasses: an assessment of their co-utilization for thermochemical biorefinery operations", Proceedings of the 21st European Biomass Conference and Exhibition, Copenhagen, Denmark, June 2013.
98. C. Christodoulou, D. Grimakis, K. Marinakis, K. Tsiotas, I. Papamichail, K. Panopoulos, D. Vamvuka, S. Karellas, E. Kakaras, "Circulating fluidized bed gasification of 1st and 2nd generation biofuel seed cakes after oil extraction", Proceedings of the 21st European Biomass Conference and Exhibition, Copenhagen, Denmark, June 2013.
99. D. Vamvuka, M. Galetakis, C. Roumpos, "Coal quality control techniques and selective grinding as means to reduce CO₂ emissions", 6th International Conference on Sustainable Development in the Minerals Industry, Milos, Greece, July 2013.

Articles in Scientific Journals

100. D. Vamvuka, "Transportation fuels. Perspectives of using biofuels and their economics", Oikopolis, 32, 41-43 (2008).

Workshops

101. D. Vamvuka, "Energy exploitation of biomass. The case of Crete.", Meeting on "Biomass pellets. Perspectives for Greek market development", Hania, Greece, April, 2005.
102. D. Vamvuka, "Bioenergy market in Greece", Meeting on "Network for innovation and dissemination of energy technology", Hania, Greece, December, 2006.
103. D. Vamvuka, "Bioenergy options for cleaner environment", International Meeting on "Renewable Energy Resources", Hania, Greece, September, 2009.

Books

104. D. Vamvuka, «Clean Use of Coals. Low-Rank Coal Technologies», ION Publishing Co., 2001, p.594.
105. D. Vamvuka, "Biomass, Bioenergy and the Environment", Tziolas publications, 2009, p702.
106. D. Vamvuka, "Overview of solid fuels combustion technologies", Handbook of Combustion, Volume 4, Wiley-vch-books, 2010, p. 31-84.
107. D. Vamvuka and G. Kottas, "Qualitative upgradation of lignite from the Ptolemais Mine by physical methods", Honor Volume to the memory of Prof. Kavouridis, 2010, p. 209-216.

Student Publications

1. D. Vamvuka, "Coal Beneficiation", Undergraduate Course.
2. D. Vamvuka, "New Technologies for the Exploitation of Solid Fuels", Undergraduate Course.
3. D. Vamvuka, "Applied Fluid Mechanics", Undergraduate Course.
4. D. Vamvuka, "Coal Beneficiation", Postgraduate Course.
5. D. Vamvuka, "Clean Coal Technologies", Postgraduate Course.
6. D. Vamvuka, "Reduction of Emissions from Coal Power Plants", Postgraduate Course.
7. D. Vamvuka, "Biomass-Bioenergy-Environment", Postgraduate Course.
8. D. Vamvuka, "Environmental Control in Energy Production. Air Pollution", Postgraduate Course.