

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 2005-2010

Professor 2011-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.
 Department of Mechanical Engineering, University of Western Macedonia 2017-Present
 Teaching Subject to Postgraduate Students: Management and Exploitation Technologies of Energy Resources
 Supervisor of 54 DiplomaThesis, 22 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 2001-2016

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

Coordinator of the Committee of Evaluation of the Department of Mineral Resources Engineering 2012-Present

Member (assoc.) of the Regional Council of Research and Innovation 2016-Present

Consultant Professor of Energy Sector of the School of Mineral Resources Engineering 2017-Present

Member of the Deanery Board of the School of Mineral Resources Engineering 2018-Present

Member of the Company of Property Development and Management of the Technical University of Crete 2018-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-Present
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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

Associate Editor/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
Associate Editor and Member of the Editorial Board of the “Scientific World Journal” published by Hindawi Publishing Corporation	2012-Present
Associate Editor and Member of the Editorial Board of the “Journal of Fuels” published by Hindawi Publishing Corporation	2012-Present
Member of the Editorial Board of the “Frontiers in Bioenergy and Biofuels” published by Frontiers Switzerland	2013-Present
Associate Editor and Member of the Editorial Board of the “Journal of Energy” and “Natural Resources”, “Int. J. of Renewable and Sustainable Energy” published by Science PG, USA	2013-Present
Member of the Editorial Board of the “Korean J. of Chemical Engineering” published by Springer	2013-Present
Member of the Editorial Board of the “Heliyon” Published by Elsevier	2016-Present
Member of the Editorial Board of the “Recent Innovations in Chemical Engineering” published by Bentham Science	2017-Present
Member of the Editorial Board of the “Energy Conversion Research” published by Clausius Scientific Press	2018-Present
Member of the Editorial Board of the “Energy Research” published by Int. Technology and Science Publications	2018-Present
Member of the Editorial Board of the “J. of Agricultural and Soil Science” published by Iris Publications	2018-Present
Member of the Editorial Board of the “J. of Environmental Science and Engineering Technology” published by Savvy Science Publications	2019-Present
Member of the Editorial Board of the “Int. J. of Science and Engineering” published by IOJPH Publication House Australia	2019-Present

Referee

Referee of 35 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”, “Energy Conversion and Management”, “Waste Management”, “Sustainable Energy Technologies”, “Hazardous Materials” published by Elsevier, “J. of Material Cycles and Waste Management” published by Springer, “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, “J. of Energy”, “Natural Resources”, “Int. J. of Renewable and Sustainable Energy” published by Science PG, “Korean J. of Chemical Engineering” published by Springer and “J. of Combustion” published by Hindawi Publishing Corporation, USA, “Energy Research” published by Int. Technology and Science Publications, “J. of Agricultural and Soil Science” published by Iris Publication J. of Environmental Science and Engineering Technology” published by Savvy Science Publications, “Int. J. of Science and Engineering”

published by IOJPH Publication House Australia	1998-Present
Referee of National Research Programmes	2001-Present
Referee of GSRT (General Secretariat of Research & Technology)	2004-Present
Referee of Italian Ministry of Education, University and Research (MIUR)	2012-Present
Referee of Russian Science Foundation	2014-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) Implenetation 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 Thalís)	2012-2016
22.	Coordinator Ανάλυση χημικής σύστασης και μικροδομής προσροφητών διοξειδίου του άνθρακα	
	Source of Funding: National Centre of Research and Technological Development E.K.E.T.A.	2013
23.	Researcher. Optimization of Clean Fuels performance for low carbon emissions	
	Source of Funding: GSRT (Programme ARISTIA II No 4466)	2014-2016
24.	Contractor "BEWEXMIN-Bucket wheel excavators operating under difficult mining conditions including unmineable inclusions and geological structures with excessive mining resistance"	
	Source of Funding: EC (Programme RFCR-CT-2015-00003)	2015-2018.

PUBLICATIONS (Citations 5062 up to 2019)

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, E.T. Woodburn, P.R. Senior, C.M. Preston, R.H. Newman, "A long-term effect of n fertilization on the ¹³C CPMAS NMR of de-ashed soil humin in a second-growth Douglas-fir stand of coastal British Columbia", *Geoderma*, **68**(4) (1995).
13. R.Y. Seng, L. Fumagalli, G. Berton, W. Chia-Ju, D. Vamvuka, G. Schwanekamp, H.W. Gudenau, H.E. Newsom, K.W.W. Sims, P.D. Noil, "The depletion of tungsten in the bulk silicate earth: Constraints on core formation", *Geochimica et Cosmochimica Acta*, **60**(7) (1996).
14. R.Y. Seng, L. Fumagalli, G. Berton, W. Chia-Ju, D. Vamvuka, G. Schwanekamp, H.W. Gudenau, H.E. Newsom, K.W.W. Sims, P.D. Noil, "Analogy between electrical machines and heat transfer-irreversible heat engines", *Int. J. of Heat and Mass Transfer*, **39**(17) (1996).
15. 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).
16. D.Vamvuka, "Study on the possibility of recovering lignites from refused innerburden", *Energy Exploration and Exploitation*, **14**(5), 439-447 (1996).
17. D.Vamvuka, "Thermogravimetric analysis of beneficiated low-rank coal in oxidative environment", *Mineral Wealth*, **106**, 21-28 (1998).

18. 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).
19. 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).
20. D. Vamvuka,
"Gasification of coal", *Energy Exploration and Exploitation*, **17(6)**, 515-581 (1999).
21. D. Vamvuka,
"Environmental impacts of coal utilization on the ecosystem", *Energy Exploration and Exploitation*, **17(6)**, 583-605 (1999).
22. D.Vamvuka,
"Chemical comminution as a method of fracturing and cleaning lignites", *J. of the Institute of Energy*, **74**, 29-37 (2001).
23. D.Vamvuka and V.Agridiotis,
"The effect of chemical reagents on lignite flotation", *International Journal of Mineral Processing*, **61**, 209-224 (2001).
24. 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).
25. 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).
26. D.Vamvuka and T.D. Tsoutsos,
"Energy exploitation of agricultural residues in Crete", *Energy Exploration and Exploitation*, **20(1)**, 113-121 (2002).
27. 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).
28. 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).
29. 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).
30. D. Vamvuka, E. Kastanaki M. Lasithiotakis and C. Papanicolaou,
"Combustion behavior of xylite/lignite mixtures", *Carbon*, **42(2)**, 351-359 (2004).
31. D. Vamvuka, C. Arvanitidis and D. Zahariadis,
"Flue gas desulfurization at high temperatures. A review ", *Environmental Engineering and Science*, **21(4)**, 525-547 (2004).
32. D. Vamvuka and D. Zografos,
"Predicting the behavior of ash from agricultural wastes during combustion", *Fuel*, **83(14-15)**, 2051-2057 (2004).
33. 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).
34. 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).
35. 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).
36. D. Vamvuka, D. Zografos and G. Alevizos,

- “Control methods for mitigating biomass ash-related problems in fluidized beds”, *Bioresource Technology*, **99**, 3534-3544 (2008).
37. D. Vamvuka,
“Comparative fixed/fluidized bed experiments for the thermal behaviour and environmental impact of olive kernel ash”, *Renewable Energy*, **34**, 158-164 (2008).
38. D. Vamvuka, N. Salpigidou, E. Kastanaki and S. Sfakiotakis,
“Possibility of using paper sludge in co-firing applications”, *Fuel*, **88(4)**, 637-643 (2009).
39. M. Galetakis and D. Vamvuka,
“Lignite quality uncertainty estimation for the assessment of CO₂ emissions, *Energy and Fuels*, **23**, 2103-2110 (2009).
40. 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).
41. 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).
42. 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).
43. D. Vamvuka, G. Bandelis,
“Evaluation of wood residues from Crete as alternative fuels”, *International Journal of Energy and Environment*, **1(4)**, 667-674 (2010).
44. 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).
45. 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).
46. D. Vamvuka,
“Bio-oil, solid and gaseous biofuels from biomass pyrolysis processes-an overview, *International Journal of Energy Research*, **35(10)**, 835-862 (2011).
47. 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).
48. 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).
49. 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).
50. 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).
51. 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).
52. D. Vamvuka, S. Sfakiotakis,
“Combustion behaviour of biomass fuels and their blends with lignite”, *Thermochimica Acta*, **526**, 192-199 (2011).
53. 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).
54. 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).

55. 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).
56. D. Vamvuka, S. Sfakiotakis, K. Panopoulos, "An experimental study on the thermal valorisation of municipal and animal wastes", *IJEE*, **4**, 191-198 (2012).
57. D. Vamvuka, V. Tsamourgeli, M. Galetakis, "Study on catalytic combustion of biomass mixtures with poor coal", *Combustion Science and Technology*, **186**, 68-82 (2014).
58. D. Vamvuka, M. Trikouvertis, G. Alevizos, D. Pentari, "Evaluation of ashes of orange tree residues burned in a fluidized bed", *Renewable Energy*, **72**, 336-343 (2014).
59. D. Vamvuka, S. Sfakiotakis and S. Saxioni, "Evaluation of urban wastes as promising co-fuels for energy production- A TG-MS study", *Fuel*, **147**, 170-183 (2015).
60. D. Vamvuka, V. Tsamourgeli, D. Zaharaki, K. Komnitsas, "Evaluation of co-combustion of mediterranean biomass/ lignite blends", *Energy Sources, Part A*, **38(14)**, 2079-2085 (2016).
61. P. Manara, D. Vamvuka, S. Sfakiotakis, C. Vanderghem, A. Richel, A. Zabaniotou, "Mediterranean agri-food processing wastes pyrolysis after pre-treatment and recovery of precursor materials: A TGA-based kinetic modeling study", *Food Research International*, **73**, 44-51 (2015).
62. Ch. Christodoulou, D. Grimakis, K.D. Panopoulos, D. Vamvuka, S. Karellas, E. Kakaras, "Circulating fluidized bed gasification of seed cakes residues after oil extraction and comparison with wood", *Fuel*, **132**, 71-81 (2014).
63. D. Vamvuka, S. Sfakiotakis, E. Pazara, K. Panopoulos, "Kinetic Modeling of Five Sustainable Energy Crops as Potential Sources of Bioenergy", *Energy Sources Part A*, **38(12)**, 1812-1818 (2016).
64. D. Vamvuka, S. Sfakiotakis, "Gasification Reactivity and Mass Spectrometric Analysis of Gases of Energy Crop Chars under CO₂ Atmosphere", *Energy and Fuels*, **29**, 3215-3223 (2015).
65. Kostas Komnitsas, Dimitra Zaharaki, Ioannis Pylotis, Despina Vamvuka, Georgios Bartzas, "Assessment of Pistachio Shell Biochar Quality and Its Potential for Adsorption of Heavy Metals", *Waste and Biomass Valorization*, **6**, 805-816 (2015).
66. S. Sfakiotakis, D. Vamvuka, "Development of a modified independent parallel reactions kinetic model and comparison with the distributed activation energy model for the pyrolysis of a wide variety of biomass fuels", *Bioresource Technology*, **197**, 434-442 (2015).
67. D. Vamvuka, M. Papas, M. Galetakis, S. Sfakiotakis, "Thermal valorization of an animal sludge for energy recovery via co-combustion with olive kernel in a fluidized bed unit: Optimization of emissions", *Energy and Fuels*, **30**, 5825-5834 (2016).
68. D. Vamvuka, M. Trikouvertis, D. Pentari, G. Alevizos, A. Stratakis, "Characterization and evaluation of fly and bottom ashes from combustion of residues from vineyards and processing industry", *J. of the Institute of Energy*, **90**, 574-587 (1017).
69. D. Vamvuka, G. Merkoulidi, M. Galetakis, "Investigation of the combustion performance of residues from vineyards and processing industry via fluidized bed experiments, factorial design and modelling", *Combustion Science and Technology*, **189 (5)**, 890-907 (2017).
70. D. Vamvuka, G. Kaniadakis, D. Pentari, G. Alevizos, Z. Papapolikarpou, "Comparison of ashes from fixed/fluidized bed combustion of swine sludge and olive by-products. Properties, environmental impact and potential uses", *Renewable Energy*, **112**, 74-83 (2017).
71. G. Bartzas, D. Vamvuka, K. Komnitsas, "Life cycle assessment of pistachio, almond and apple production", *Information Processing in Agriculture*, **4 (3)**, 188-198 (2017).
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