

## 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  
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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.  
 Supervisor of 51 DiplomaThesis, 17 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
Member 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

### **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
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Grant from COMMET STRAND BC, European Community 1994

### **Invited Lecturer**

Invited Lecturer in Various Universities and Associations 1994-Present

### **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<sup>rd</sup> International Conference of the Greek Section of the Combustion Institute, Patras, Greece. November 2003  
 Chairman and Member of the Organising Committee for the 3<sup>rd</sup> 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<sup>st</sup> International Conference AMIREG Hania, Greece June 2004  
 Member of the Advisory Board of the 2<sup>nd</sup> 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<sup>rd</sup> 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

### **Referee**

Referee of 31 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,	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**

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|--|-----------|
| 1. Principal Researcher<br>Development of Improved Hydrogenation Catalysts for Coal-derived Liquids.<br>Source of Funding: EC (Joule Programme)                                | 1989-1990 |
| 2. Principal Researcher<br>Development of Partial Catalytic Oxidation of Methane for the Production of C <sub>2</sub> Hydrocarbons.<br>Source of Funding: EC (Joule Programme) | 1990-1991 |
| 3. Coordinator<br>Qualitative Upgradement of Carbonaceous Seams from Komanos Mine by Selective Grinding.<br>Source of Funding: ELKE (Technical University of Crete).           | 1993-1994 |
| 4. Contractor<br>Study on Combustion of Pulverized Coal and Plastic Wastes under conditions simulating Blast Furnace Injection.<br>Source of Funding: COMMET STRAND BC, EC.    | 1994      |

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| 5.  | Contractor<br>Increase of the Local Potential for the Recycling of Used Oils<br>Source of Funding: GSRT (Programme EPET II)   | 1995-1998 |
| 6.  | Researcher<br>Rational Use of Energy in Agriculture - The Case of Olive Oil Residues<br>Source of Funding: 17th G.D. EC (Save Programme)  | 1996-1998 |
| 7.  | Coordinator<br>Revamping the Existing Undergraduate Curriculum of the Dept. of Mineral Resources Engineering and its Tentative Application.<br>Source of Funding: 2nd Support Framework of the European Union | 1997-2000 |
| 8.  | Contractor<br>Combustion Behaviour of Clean Fuels in Power Generation<br>Source of Funding: EC (ENERGY Programme)   | 2000-2003 |
| 9.  | Researcher<br>Advanced Demineralization of Coal<br>Source of Funding: EC (ECSC Programme)   | 2000-2004 |
| 10. | Contractor<br>Study on the Use of Greek Lignites as Absorbing Materials for Retention of Gaseous Emissions<br>Source of Funding: EC (EPAN Programme)  | 2003-2006 |
| 11. | Contractor<br>Revamping the Undergraduate Curriculum of the Dept. of Mineral Resources Engineering<br>Source of Funding: Greek Ministry of Education (Programme EPEAEK)                                       | 2003-2005 |
| 12. | Researcher<br>Bioenergy chains from perennial crops in S. Europe<br>Source of Funding: EC (ENK6-CT2001-00524)   | 2001-2005 |
| 13. | Coordinator<br>"Nuclear" Energy from Peaches<br>Source of Funding: EC and Region of Crete (CRINNO Programme)  | 2005-2006 |
| 14. | Contractor<br>Revamping the Undergraduate Curriculum of the Dept. of Mineral Resources Engineering<br>Source of Funding: Greek Ministry of Education (Programme EPEAEK)                                       | 2006-2008 |
| 15. | Contractor<br>Prototype Unit for Biomass Combustion<br>Source of Funding: GSRT (Programme Regional Innovation Pole of Crete)  | 2006-2008 |
| 16. | Researcher<br>Demonstration of large scale biomass co-firing and supply chain integration<br>Source of Funding: EC (FP7 DEBCO)  | 2008-2011 |
| 17. | Contractor<br>Economic Modeling and Assessment of CCS (Carbon Capture and Sequestration) Implenetation in Europe<br>Source of Funding: GSRT (Programme FENCO-ERA.NET)   | 2009-2010 |
| 18. | Contractor<br>Strategies to improve and protect soil quality from the disposal of olive oil mills' wastes in the Mediterranean region<br>Source of Funding: EC (LIFE07/ENV/GR/000280)                         | 2009-2012 |
| 19. | Contractor<br>Best practices for agricultural WASTEs (AW) treatment and REUSE in the Mediterranean countries<br>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 Thalis) 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 3468 up to 2017)

### Articles in International Scientific Journals

- 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).
- 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).
- D.Papageorgiou, D.Vamvuka, D.Boudouvas and X.E.Verykios, "Oxidative coupling of methane to C<sub>2</sub> hydrocarbons over titania-based catalysts", *Catalysis Today*, **13**, 391-400 (1992).
- 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).
- 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).
- 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).
- M.Koussathana, D.Vamvuka and X.Verykios, "Improved hydrogenation catalysts for coal-derived liquids", *International Journal of Energy Research*, **18**, 243-250 (1994).
- D.Papageorgiou, D.Vamvuka and X.E.Verykios, "Oxidative coupling of methane to C<sub>2</sub> hydrocarbons over doped titania catalysts", *Studies in Surface Science and Catalysis*, **75**, 2269-2272 (1993).
- 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 <sup>13</sup>C 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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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