

CURRICULUM VITAE

JEGUIRIM Mejdı (42 years)

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PERSONAL DETAILS

Citizenships: Tunisia, France

Marital Status: Married, 2 Children

ACADEMIC QUALIFICATIONS

- HDR Research Energy, University of Haute Alsace, France (*Sep, 2006 – Dec 2011*), Title: “Contribution to the kinetic modelling of heterogeneous reaction during solid fuels degradation.
- Ph.D Environmental Chemistry, University of Haute Alsace, France (*Sep, 2002 – Jul, 2005*)
Thesis Title: “Contribution to the understanding of the oxidation mechanism of Diesel soot by NO₂ in the exhaust gas conditions – Effect of Pt based catalyst”
- Master’s Degree Energy & Environment, University of Besançon (*Oct, 2001 – Jun, 2002*)
- Engineer Energetic Diploma Engineer School of Monastir, (*Sep, 1994 – Jun, 1999*)

PROFESSIONAL EXPERIENCE

- Associate Professor, Faculté des Sciences et Techniques de Mulhouse (*Sep, 2006 up to date*) :Teaching combustion, heating transfer, fluid mechanic and chemistry courses.
- Assistant Professor, Faculté des Sciences et Techniques de Mulhouse (*Sep, 2005 – Aug, 2006*) :Teaching combustion, heating transfer, fluid mechanic and chemistry courses.
- Research Assistant, Laboratoire Gestion des Risques et Environnement (GRE), (*Sep, 2002 – Jul, 2005*) :Collaborated in the European Program COMET on the understanding of the mechanism of the Soot-NO₂ reaction in absence and presence of catalyst

AWARDS AND HONORS

- National Research Excellence Award for researcher with high level scientific activity in their area of research, Université de Haute Alsace, 2009-2012, 2013-2016 and 2017-2020.

RESEARCH INTEREST

1. **Biomass Valorisation** : Pyrolysis, Gasification and Combustion of different biomasses including agriculture residues and agro-industrial by-products : thermal degradation mechanisms and kinetics, products analysis and recovery.
2. **Heterogen Catalysis, Adsorption, Activated Carbon** : Exhaust gas treatment in fixed sources : Catalytic NO_x and soot abatement, Volatiles Organic Compounds elimination using activated carbon prepared by pyrolysis and activation of biomass residues. Removal of pollutants from aqueous effluents (Dyes, Antibiotic, Heavy Metals).

TEACHING INTEREST

General Chemistry, Process Engineering, Fluid Dynamic, Heat Transfer, Combustion, Biomass Energy, Renewable Energies.

PROFESSIONAL ACTIVITIES

Journal Editorial Activities

- Associate Editor, **Energy for Sustainable Development** Journal (*IF* : 1.993), ISSN: 0973-0826 since *January 2013*.
- Member Editorial Board, **Energy, The International Journal** (*IF* : 4.844), ISSN: 0360-5442 (<http://www.journals.elsevier.com/energy/>) since *January 2015*.
- Member Editorial Board, **Energies** (*IF* : 2.08), ISSN: 1996-1073 (<http://www.mdpi.com/journal/energies/>) since *June 2016*.
- Member, Editorial Board, **International Journal of Energy Engineering** p-ISSN: 2163-1891, e-ISSN: 2163-1905 (<http://journal.sapub.org/ijee>) since 2011.
- Member, Editorial Board, **Journal of Thermal Energy and Power Engineering** (TEPE) (<http://www.vkingpub.com/journal/tepe/index.aspx>) since 2011.
- Member, Editorial Board, **International Journal of Power and Renewable Energy Systems** (IJPRES) : <http://www.as-se.org/IJPRES> since 2013.

Reviewer for 40 different journals including : Energy, Bioresource Technology, BioEnergy Research, Fuel, Renewable Energy, Energy & Fuel, Applied Catalysis B, Desalination, Chemical Engineering Journal, Industrial & Engineering Chemistry Research, International Journal of Green Energy, Chemical Engineering Research Design, Journal of Hazardous Materials, Thermochemica Acta, Energy Conversion and Management, International Journal of Energy Engineering, Industrial Crops and Products, Environmental Engineering and Management Journal, Fire Safety Journal, Comptes Rendus Chimie, International Journal of Chemical Reactor and Design, Journal of Industrial and Engineering Chemistry, Environmental Science and Technology, Catalysis Communications, Journal of Colloids and Surfaces, Polish Journal of Chemical Technology, British Journal of Applied Science & Technology, Plos One, Environmental Progress and Sustainable Energy, Korean Journal of Chemical Engineering

Scientific Expert for projects submitted in the frame of :

- Joint Applied Research Projects - PCCA 2011- Call Number: PN-II-PT-PCCA-2011-3Research, Romanian Ministry of Research,
- Blanc – Accords bilatéraux 2013 - SIMI 8 2013, National Agency of research, France
- Ressourcement Carnot M.I.N.E.S 2013
- The republican budgetary program 009 in the “Applied scientific researches in area of emergency” Ministry of Emergency Situations of the Republic of Kazakhstan (2013).
- The National Centre of Science and Technology, Republic of Kazakhstan (2014).
- PNCDI III -. Competitiveness by research, development and innovation, Experimental - Demonstration project (PED 2016), Romanian Ministry of scientific Research,
- The National Centre of Science and Technology, Republic of Kazakhstan (2016).

Conference Organization Activities

- Scientific Committee, 8èmes Journées Tunisiennes sur les Ecoulements et les transferts (JTET’ 2013), November 28-30, 2013, Sousse, Tunisia
- Scientific Committee, International Chemical Engineering Congress (INTCEC), December 16-19, 2013, Djerba, Tunisia.

- Scientific Committee, The Fifth International Renewable Energy Congress (IREC), March 25-27, 2014, Hammamet, Tunisia.
- Scientific Committee, The Energy and Materials Research Conference - (EMR2015), 25 - 27 February 2015, Madrid (Spain).
- Scientific Committee, The Sixth International Renewable Energy Congress (IREC), March 25-27, 2015, Sousse, Tunisia.
- Scientific Committee, The Seventh International Renewable Energy Congress (IREC), March 22-24, 2016, Hammamet, Tunisia.
- Scientific Committee, The International Conference on Material, Power and Energy Engineering (MPEE2016) August 19th - 21st, 2016, Shenzhen, China
- Scientific Committee, The eighth International Renewable Energy Congress (IREC), March 21-23, 2017, Dead Sea, Jordan.
- Scientific Committee, The Energy and Materials Research Conference - (EMR2017), 5-7 April 2017, Lisbon (Portugal).
- Scientific Committee, 5th International Conference on Sustainable Solid Waste Management, Athens, 21–24 June 2017 (Greece).
- Scientific Committee, The 2nd International Conference on Environmental Science and Engineering, July 14th-16th, 2017, Xiamen (China).
- Scientific Committee, The ninth International Renewable Energy Congress (IREC), March 19-21, 2018, Hammamet, Tunisia.
- Scientific Committee, 6th International Conference on Sustainable Solid Waste Management, Naxos, 13–16 June 2017 (Greece).

INTERACTION WITH INDUSTRY AND RESEARCH LABORATORIES

Centre Scientifique et Technique du Bâtiment, Département Sécurité Structure et Feu, Marne la vallée, France, 2008. Comparison of zone and field models for arson fire reconstruction in accommodation unit.

Conservatoire National des Arts et Métiers, LTCP, LSN, Paris, France, 2009. Energy recovery of Sawdust/Olive Mill Wastewater Blends

Centrum voor Oppervlaktechemie en Katalyse, Leuven, Belgique, 2004-2010. Effect of Ru/NaY catalyst on the soot oxidation and nitrogen oxides reduction

Daimler AG, Corporate Headquarters, Stuttgart, Germany, 2007-2010. Kinetics of soot oxidation in Diesel Exhaust conditions.

Centre Scientifique et Technique du Bâtiment, Département Sécurité Structure et Feu, Marne la vallée, France, 2008-2010. Development of a modeling method for evaluating fire safety strategy performance

Unité de Recherche en Sciences et Technologie de l'Environnement, Institut Supérieur des Sciences et Technologies de l'Environnement, Borj Cedria, Tunisia 2008-2010. Combustion of olive solid waste

Groupe Lesaffre International, Marcq en Bareul, France, 2011, Feasibility study of the vinasses impregnation on sawdust for energy recovery.

Unité de Recherche d'Etude des Milieux Ionisés et Réactifs (UR EMIR), Monastir, Tunisie, 2008-2013. Energy recovery from date palm residues.

Le Laboratoire d'Innovation pour les Technologies des Energies Nouvelles et les nanomatériaux, Centre des Etudes Atomiques, 2014, Study on the influence of the inorganics on the kinetics of biomass gasification.

THESIS ADVISING ACTIVITIES

Doctor of Philosophy

1. *Ajmia Chouchene*, Experimental and theoretical study of olive mill wastes recovery by thermal and physico-chemical methods, December 2010
2. *Anne Muller*, Development of a modeling method for evaluating fire safety strategy performance, December 2010
3. *Yassine Elmay*, Experimental and theoretical study of biofuel combustion, December 2012
4. *Zohra Belala*, Physical and combined activation of date stones. Characterization and application of materials obtained in the treatment of water polluted by heavy metals and organic solvents from industrial discharges, December 2012
5. *Nesrine Kraiem*, Characterization and study of the drying of wet biomass for energy recovery, March 2015
6. *Imen Ghouma*, Modeling the kinetics of pyrolysis and carbonization of olive pomace, December 2015
7. *Jemaa Mabrouki* Study of the process of the energetic recovery of biomass for biofuels production, April 2017/
8. *Khouloud Haddad*, Controlled pyrolysis of lignocellulosic materials modified chemically : Energy recovery and Char use of phosphore retention. Expected June 2018.
9. *Amel Ibn Ferjani*, Recovery of agricultural by-products enriched with nutrients for their use in soil amendment. Expected December 2019.
10. *Tilia Dahou*, Implementation of the gasification of low cost biomass through the understanding of the inorganic elements role. Expected November 2019.

SPECIAL ISSUES EDITING

- [SI1] Guest Editor for the Special Issue “Modelling and Optimisation in Chemical and Biological Engineering: Application to Wastewater and Gas Treatment” Mejdı Jeguirim, Lionel Limousy, International Journal of Chemical Reactor and Engineering, Volume 12, Issue 2 (December 2014).
- [SI2] Guest Editor for the Thematic Issue “International Chemical Engineering Congress 2013 : from fundamentals to applied chemistry and biochemistry”, Lionel Limousy, Mejdı Jeguirim, Comptes Rendus Chimie, Volume 18, Issue 1, Pages 1-120 (January 2015).
- [SI3] Guest Editor for Thematic Issue “Biomass Energy, Environment and Sustainable Development, IREC 2015”, Lionel Limousy, Mejdı Jeguirim, Comptes Rendus Chimie, Volume 19, Issue 4 (April 2016).

- [SI4] Guest Editor for the Special Issue “Process Engineering for Pollution Control and Waste Minimization”, Mejdı Jeguirim, Lionel Limousy, Environmental Science and Pollution Research, Volume 24, issue 11 (April 2017)
- [SI5] Guest Editor for the Special Issue “Biomass Chars: Elaboration, Characterization and Applications”, Mejdı Jeguirim, Lionel Limousy, Energies, 2017
- [SI6] Guest Editor for the Special Issue “Strategies for Bioenergy Production from Agriculture and Agrifood Processing Residues”, Mejdı Jeguirim, Lionel Limousy, Biofuels, Under Progress
- [SI7] Guest Editor for the Special Issue “Biomass Chars: Elaboration, Characterization and Applications”, Second Edition, Mejdı Jeguirim, Lionel Limousy, Energies, Under Progress

JOURNAL PUBLICATIONS

- [P1] **M. Jeguirim**, V. Tschamber, J. F. Brilhac and P. Ehrburger, "Interaction mechanism of NO₂ with carbon black: effect of surface oxygen complexes", Journal of Analytical and Applied Pyrolysis, 72 (2004) 171-181.
- [P2] **M. Jeguirim**, V. Tschamber, J. F. Brilhac and P. Ehrburger, "Oxidation mechanism of carbon black by NO₂: effect of water vapour", Fuel, 84 (2005) 1949-1956.
- [P3] V. Tschamber, **M. Jeguirim**, K. Villani, P. Ehrburger and J. Martens "Comparison of the activity of Ru and Pt catalysts for the oxidation of carbon by NO₂", Applied Catalysis B: Environmental 72 (2007) 299–303.
- [P4] **M. Jeguirim**, V. Tschamber and P. Ehrburger "Catalytic effect of platinum on the kinetics of carbon oxidation by NO₂ and O₂", Applied Catalysis B: Environmental 76 (2007) 235–240.
- [P5] A. Muller, **M. Jeguirim**, F. Demouge, P. Fromy, J.F. Brilhac, “Contribution to the Development of a Systemic Approach for Building Fire Safety Characterization”, Res Systemica, European Systems Science Journal, Vol 7, December 2008.
- [P6] **M. Jeguirim**, V. Tschamber and J. F. Brilhac "Kinetics and mechanism of the oxidation of carbon by NO₂ in the presence of water vapor", International Journal of Chemical Kinetics, 41 (2009) 236-244.
- [P7] **M. Jeguirim**, V. Tschamber and J. F. Brilhac "Kinetics of catalyzed and non-catalyzed soot oxidation with nitrogen dioxide under Regeneration Particle Trap Conditions", Journal of Chemical Technology & Biotechnology 84 (2009) 770-776.
- [P8] **M. Jeguirim**, V. Tschamber, K. Villani, J. F. Brilhac and J. Martens "Mechanistic study of Carbon oxidation with NO₂ and O₂ in presence of Ru/Na-Y catalyst", Chemical Engineering & Technology 32 (2009) 830-834.
- [P9] **M. Jeguirim**, G. Trouvé “Pyrolysis characteristics and kinetics of Arundo Donax using thermogravimetric analysis”, Bioresource technology 100 (2009) 4026-4031.
- [P10] **M. Jeguirim**, S. Dorge, G. Trouvé “Thermogravimetric Analysis and Emission Characteristics of two Energy Crops in Air Atmosphere: Arundo Donax and Miscanthus Giganthus, Bioresource Technology 101 (2010) 788-793.

- [P11]A. Chouchene, **M. Jeguirim**, B. Khiari, G. Trouvé, F. Zagrouba, Study on the Emission Mechanism during Devolatilization/Char Oxidation and Direct Oxidation of Olive Solid Waste in a fixed bed reactor, *J. of Anal. and App. Pyrolysis* 87 (2010) 168-174.
- [P12]A. Chouchene, **M. Jeguirim**, B. Khiari, G. Trouvé, F. Zagrouba “Thermal degradation behavior of olive solid waste: Influence of the particle size and oxygen atmosphere”, *Resources, Conservation & Recycling* 54 (2010) 271-277.
- [P13]**M. Jeguirim**, K. Villani, J. F. Brilhac and J. Martens "Ruthenium and Platinum catalyzed carbon oxidation: a comparative kinetic study", *Applied Catalysis B: Environmental* 96 (2010) 34-40.
- [P14]**M. Jeguirim**, S. Dorge, A. Loth, G. Trouvé "Devolatilization kinetics of Miscanthus straw from thermogravimetric analysis", *Inter. Journal of Green Energy*, 7: 164–173, 2010.
- [P15]A. Chouchène, **M. Jeguirim**, G. Trouvé, A. Favre-Réguillon, G. Le Buzit, Combined process for the treatment of olive oil mill wastewater: Absorption on sawdust and combustion of the impregnated sawdust, *Bioresource Technology* 101 (2010) 6973.
- [P16]M. Labaki, M. Issa, S. Smeekens, S. Heylen, C.E.A. Kirschhock, K. Villani, **M. Jeguirim**, J.F. Brilhac, J. A. Martens, Modeling of NO_x Adsorption-Desorption-Reduction Cycles on a Ruthenium Loaded Na-Y Zeolite, *Applied Catalysis B: Environmental* 97 (2010) 13–20.
- [P17]N. Zouaoui, J.F. Brilhac, F. Mechat, **M. Jeguirim**, B. Djellouli, P. Gilot “Study of experimental and theoretical procedures when using thermogravimetric analysis to determine kinetic parameters of carbon black oxidation” *Journal of Thermal Analysis and Calorimetry*, 102 (2010) 837-849.
- [P18]**M. Jeguirim**, A. Muller, F. Brenez, Ph. Fromy, F. Demouge, J.F. Brilhac "Reconstruction of an arson fire scene in accommodation unit using Fire Dynamic Simulator", *Journal of Applied Fire Science* 19 (2010) 133-151.
- [P19]Z. Belala, **M. Jeguirim**, M. Belhachemi, F. Addoun, G.Trouvé “Biosorption of copper from aqueous solutions by date stones and palm-trees waste”, *Environmental Chemistry Letters* 9 (2011) 65–69.
- [P20]Z. Belala, **M. Jeguirim**, M. Belhachemi, F. Addoun, G.Trouvé “ Biosorption of basic dye from Aqueous Solutions by Date Stones and Palm-Trees Waste: Kinetic, Equilibrium and Thermodynamic Studies ”, *Desalination* 271 (2011) 80–87.
- [P21]S. Dorge, **M. Jeguirim**, G. Trouvé, Thermal degradation of Miscanthus pellets: kinetics and aerosols characterization, *Waste and Biomass Valorization* 2 (2011)149-155.
- [P22]K. Guedri , M.N. Borjini, **M. Jeguirim**, J.F. Brilhac, R. Saïd, Numerical study of radiative heat transfer effects on a complex configuration of rack storage fire, *Energy* 36 (2011) 2984-2996.
- [P23]A. Chouchène, **M. Jeguirim**, A. Favre-Réguillon, G. Trouvé, G. Le Buzit, B. Khiari, F. Zagrouba “ Energetic Valorisation of Olive Mill WasteWater Impregnated on low cost absorbent: Sawdust versus Olive Solid Waste” *Energy* 39 (2012) 74.
- [P24]**M. Jeguirim**, A. Chouchène, A. Favre-Réguillon, G. Trouvé, G. Le Buzit “A new valorisation strategy of olive mill wastewater : impregnation on sawdust and combustion” *Resources, Conservation & Recycling* 59(2012) 4.

- [P25]N. Zouaoui, M. Issa, D.Kehrli, **M. Jeguirim**, "CeO₂ catalytic activity for soot oxidation under NO/O₂ in loose and tight contact" *Catalysis Today* 189 (2012). 65
- [P26]Y. ElMay, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said "Study on the Thermal behaviour of different date palm residues: Characterization and devolatilization kinetics under inert and oxidative atmospheres" *Energy*. 44 (2012) 702
- [P27]Y. ElMay, S. Dorge, **M. Jeguirim**, G. Trouvé, R. Said "Measurement of Gaseous and Particulate Pollutants during Combustion of Date Palm Wastes for Energy Recovery" *Aerosol and Air Quality Research*, 12 (2012) 814
- [P28]Y. ElMay, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said " Experimental Investigation on Gaseous Emissions from the combustion of date palm residues in Laboratory Scale Furnace" *Bioresource Technology* 131 (2013) 94.
- [P29]A. Muller, F. Demouge, **M. Jeguirim**, Ph. Fromy, J.P. Vantelon, The use of Petri nets and a two-zone model for fire scene reconstruction, *Fire Safety Jour.* 55 (2013) 139.
- [P30]A. Muller, F. Demouge, **M. Jeguirim**, Ph. Fromy " SCHEMA-SI : A hybrid fire safety engineering tool. Part I : tool theoretical basis", *Fire Safety Journal*, 58 (2013) 132.
- [P31]A. Muller, F. Demouge, **M. Jeguirim**, Ph. Fromy " SCHEMA-SI : A hybrid fire safety engineering tool. Part II : case study", *Fire Safety Journal*, 58 (2013) 58.
- [P32]L. Limousy, **M. Jeguirim**, P. Dutournié, N. Kraiem, M. Lajili, R. Said "Gaseous products and particulate matter emissions of biomass residential boiler fired with spent coffee grounds pellets" *Fuel* 107 (2013) 323.
- [P33]Y. Elmay, G. Trouvé, **M. Jeguirim**, R. Said "Energy recovery of date palm residues in a domestic pellets boiler" *Fuel Processing Technology* 112 (2013) 12.
- [P34]Y. ElMay, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said " Evaluation of date palm residues combustion in fixed bed laboratory reactor : A comparison with sawdust behaviour" *Renewable Energy* 62 (2014) 209.
- [P35]Z. Belala, F. Mechat, **M. Jeguirim**, M. Belhachemi, F. Addoun, "Equilibrium modelling of copper ions biosorption by date stones and palm trees waste" *Environmental Engineering and Management Journal*, 13 (2014) 653-662
- [P36]N. Zouaoui, M. Labaki, **M. Jeguirim**, "Diesel soot oxidation by nitrogen dioxide, oxygen and water under engine exhaust conditions : kinetics data related to the reaction mechanism" *Comptes Rendus Chimie* 17 (2014) 672
- [P37]A. Chouchène, **M. Jeguirim**, G. Trouvé, "Biosorption performance, combustion behavior, and leaching characteristics of olive solid waste during the removal of copper and nickel from aqueous solutions" *Clean Techn Environ Policy* 16 (2014) 979-986.
- [P38]**M. Jeguirim**, L. Limousy, P. Dutournie, Pyrolysis kinetics and physicochemical properties of agropellets produced from spent ground coffee blended with conventional biomass, *Chemical Engineering Research and Design* 92 (2014) 1876-1882
- [P39]M. Belhechemi, **M. Jeguirim**, L. Limousy, F. Addoun, Comparison of NO₂ removal using date pits activated carbon and modified commercialized activated carbon via different preparation methods: effect of porosity and surface chemistry, *Chemical Engineering Journal*, 253 (2014) 121-129

- [P40]M. Lajili, L. Limousy, **M. Jeguirim**, Physico-chemical properties and thermal degradation characteristics of agropellets from Olive mills by-product/sawdust blends, *Fuel Processing Technology* 126 C (2014) 215-221
- [P41]**M. Jeguirim**, Y. Elmay, L. Limousy, M. Lajili, R. Said " Devolatilization behavior and pyrolysis kinetics of potential Tunisian biomass fuels " *Environmental Progress and Sustainable Energy*, 33 (2014) 1452–1458.
- [P42]**M. Jeguirim**, J. Bikai, Y. Elmay, L. Limousy, E. Njeugna "Thermal characterization and pyrolysis kinetics of tropical biomass feedstocks for energy recovery" *Energy For Sustainable Development*, 23 (2014) 188-193.
- [P43]N. Kraiem, **M. Jeguirim**, L. Limousy, M. Lajili, S. Dorge, L. Michelin, R. Said, Impregnation of Olive Mill WasteWater on Dry Biomasses: Impact on Chemical Properties and Combustion Performances, *Energy*, 78C (2014) . 506-516
- [P44] Z. Belala, M. Belhachemi, **M. Jeguirim**, Activated carbon prepared from date pits for the retention of NO₂ at low temperature, *International Journal of Chemical Reactor and Engineering*, 12 (2014) 717-726
- [P45] I. Ghouma, **M. Jeguirim**, S. Dorge, L. Limousy, C. Matei Ghimbeu, A. Ouederni, Activated carbon prepared by physical activation of olive stones for the removal of NO₂ at ambient temperature, *C.R. de Chimie*, 18 (2015) 63-74
- [P46] M. Lajili, **M. Jeguirim**, L. Limousy, Performance of a household boiler fed with agropellets blended from olive mill solid waste and pine sawdust, *Fuel* 153 (2015) 431-436
- [P47] J.Mabrouki, M.A. Abbassi, K. Guedri, A. Omri, **M. Jeguirim**, Simulation of biofuel production via fast pyrolysis of palm oil residues, *Fuel* 159(2015) 819-827.
- [P48] L. Limousy, **M. Jeguirim**, S. Labbe, F. Balay, E.Fossard, Performance and emissions characteristics of compressed spent coffee ground/wood chip logs in residential stove, *Energy for Sustainable Development* 28 (2015) 52-59
- [P49] Z. Bouraoui, **M. Jeguirim**, C. Guizani, L. Limousy, C. Dupont, R. Gadiou, Thermogravimetric study on the influence of structural, textural and chemical properties of biomass chars on CO₂ gasification reactivity, *Energy* 88 (2015) 703-710.
- [P50] T. Kraiem, A. Ben Hassen-Trabelsi, S. Naoui, H. Belayouni, **M. Jeguirim**, Characterization of the liquid products obtained from Tunisian waste fish fats using the pyrolysis process, *Fuel Processing Technology*, 138 (2015) 404-412
- [P51] C.Guizani, F.J. Escudero Sanz, **M. Jeguirim**, R. Gadiou, S.Salvador, The effects of textural modifications on beech wood-char gasification rate under alternate atmospheres of CO₂ and H₂O, *Fuel Processing Technology* 138 (2015) 687-694.
- [P52] Z. Bouraoui, C. Dupont, **M. Jeguirim**, L. Limousy, R. Gadiou, CO₂ gasification of woody biomass chars: the influence of K and Si on char reactivity, *Comptes Rendus Chimie*, 19(2016) 457-465
- [P53] J.Mabrouki, K. Guedri, M.A. Abbassi, A. Omri, **M. Jeguirim**, Simulation of the fast pyrolysis of Tunisian biomass feedstocks for biofuels production, *Comptes Rendus Chimie*, 19(2016) 466-474.

- [P54] Y. Elmay, **M. Jeguirim**, G. Trouvé, R. Said " Kinetic analysis of thermal decomposition of date palm residues using Coats-Redfern method " *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* 38 (2016) 1117-1124
- [P55] **M. Jeguirim**, L. Limousy, E. Fossard "characterization of coffee residues pellets and their performance in residential combustor", *International Journal of Green Energy* 13 (2016) 608-615.
- [P56] N. Kraiem, M. Lajili, L. Limousy, R. Said, **M. Jeguirim**, Energy Recovery from Tunisian Agri-food wastes: Evaluation of Combustion Performance and Emissions Characteristics of green pellets prepared from Tomato Residues and Grape Marc, *Energy* 107 (2016) 409-418.
- [P57] C. Guizani, K. Haddad, **M. Jeguirim**, B. Colin, L. Limousy, Combustion characteristics and kinetics of torrefied olive pomace, *Energy* 107 (2016) 453-463.
- [P58] C. Guizani, **M. Jeguirim**, J. Esceduro Sainz, R. Gadiou, S. Salvador, Biomass char gasification by H₂O, CO₂ and their mixture: Evolution of chemical, textural and structural properties of the chars, *Energy* 112 (2016) 133-145.
- [P59] **M. Jeguirim**, Y. Elmay, L. Limousy, Thermal degradation kinetics and mechanisms of *Posidonia Oceanica* under inert and oxidative atmospheres " *International Journal of Green Energy* 13 (2016) 665-671.
- [P60] L. Limousy, I. Ghouma, A. Ouederni, **M. Jeguirim**, Amoxicillin removal from aqueous solution using activated carbon prepared by chemical activation of olive stone, *Environmental Science and Pollution Research*, 24(2017). 9993-10004.
- [P61] T. Kraiem, A. Ben Hassen-Trabelsi, **M. Jeguirim**, Production and characterization of bio-oil from the pyrolysis of waste frying oil, *Environmental Science and Pollution Research*, 24(2017). 9951-9961.
- [P62] M. Labaki, **M. Jeguirim**, Thermochemical Conversion of Waste Tyres — a review *Environmental Science and Pollution Research*, 24(2017). 9962-9992.
- [P63] B. Wanassi, I. Ben Hariz, C. Matei Ghimbeu, C. Vaultot, M. Ben Hassen, **M. Jeguirim**, Carbonaceous adsorbents derived from textile cotton waste for the removal of Alizarin S dye from aqueous effluent: Kinetic and equilibrium studies. *Environmental Science and Pollution Research*, 24(2017). 10041-10055.
- [P64] A. Tamošiūnas, P. Valatkevičius, D. Gimžauskaitė, **M. Jeguirim**, Vladas Mėčius, M. Aikas, Energy recovery from waste glycerol by utilizing thermal water vapor plasma, *Environmental Science and Pollution Research*, 24(2017). 10030-10040.
- [P65] **M. Jeguirim**, N. Kraiem, M. Lajili, C. Guizani, A. Zorpas, Y. Leva, L. Josien, L. Michelin, L. Limousy, The relationship between mineral contents, particle matter and bottom ash distribution during pellet combustion: molar balance and chemometric analysis, *Environmental Science and Pollution Research*, 24(2017). 9927-9939.
- [P66] H. Moustafa, C. Guizani, C. Dupont, V. Martin, **M. Jeguirim**, A. Dufresne, Utilization of torrefied coffee grounds as reinforcing agent to produce high quality biodegradable PBAT composites for food packaging applications, *ACS sustainable chemistry and engineering*, 5(2017) 1906-1916.
- [P67] C. Guizani, K. Haddad, L. Limousy, **M. Jeguirim**, New insights on the structural evolution of biomass char upon pyrolysis as revealed by the Raman spectroscopy and elemental analysis, *Carbon* 119 (2017) 519-521.

- [P68] A. Tamošiūnas, A. Chouchène, P. Valatkevičius, D. Gimžauskaitė, M. Aikas, R. Uscila, M. Ghorbel, **M. Jeguirim**, The Potential of Thermal Plasma Gasification of Olive Pomace Charcoal. *Energies* 2017, 10(5) 710
- [P69] C. Guizani, **M. Jeguirim**, S. Valin, Limousy, S. Salvador, Biomass chars: the effects of pyrolysis conditions on their morphology, structure, chemical properties and reactivity, *Energies* 2017, 10(6), 796
- [P70] A. Tamošiūnas, P. Valatkevičius, D. Gimžauskaitė, V. Valtinus, **M. Jeguirim**, Glycerol steam reforming for hydrogen and synthesis gas production, *Int. Journal of Hydrogen Energy* (2017) 42, 12896-12904
- [P71] K. Haddad, **M. Jeguirim**, S. Jellali, L. Delmotte, S. Bennici, L. Limousy, Combined NMR structural characterization and thermogravimetric analyses for the assessment of the AAEM effect during lignocellulosic biomass pyrolysis, *Energy* 134 (2017) 10–23.
- [P72] I. Ghouma, **M. Jeguirim**, A. Ouederni, L. Limousy, Pyrolysis of Olive pomace: Degradation kinetics, Gaseous analysis and Char Characterization, *Waste and Biomass Valorization* 8 (2017) 1689–1697.
- [P73] A. Zorpas, M. Tsangas, **M. Jeguirim**, L. Limousy, J.N. Pedreno. Evaluation of Renewable Energy Sources (Solar, Wind and Biogas) established in Cyprus in the frame of Sustainable Development, *Fresenius Environmental Bulletin* 26 (2017) 5529-5536.
- [P74] L. Blas, P. Dutournié, **M. Jeguirim**, L. Josien, D. Chiche, S. Bertholin, A. Lambert, Numerical Modeling of Oxygen Carrier Performances (NiO/NiAl₂O₄) for Chemical-Looping Combustion. *Energies* 2017, 10, 864.
- [P75] B. Wanassi, I.B. Hariz, C.M. Ghimbeu, C. Vaultot, **M. Jeguirim**, Green Carbon Composite-Derived Polymer Resin and Waste Cotton Fibers for the Removal of Alizarin Red S Dye. *Energies* 2017, 10, 1321.
- [P76] K. Haddad, **M. Jeguirim**, B. Jerbi, A. Chouchene, P. Dutournié, N. Thevenin, L. Ruidavets, S. Jellali, L. Limousy, Olive Mill Wastewater: From a Pollutant to Green Fuels, Agricultural Water Source and Biofertilizer, *ACS Sustainable Chem. Eng.* 2017, 5, 8988–8996.
- [P77] **M. Jeguirim**, P. Dutournié, A.A. Zorpas, L. Limousy, Olive Mill Wastewater: From a Pollutant to Green Fuels, Agricultural Water Source and Bio-Fertilizer—Part 1. The Drying Kinetics. *Energies* 2017, 10, 1423.
- [P78] I. Ghouma, **M. Jeguirim**, U. Sager, L. Limousy, S. Bennici, E. Däuber, C. Asbach, R. Ligotski, F. Schmidt, A. Ouederni, The Potential of Activated Carbon Made of Agro-Industrial Residues in NO_x Immissions Abatement. *Energies* 2017, 10, 1508.
- [P79] K. Haddad, S. Jellali, **M. Jeguirim**, L. Limousy, Investigations on phosphorus recovery from aqueous solutions by biochars derived from magnesium-pretreated cypress sawdust, *Journal of Environmental Management*, 216 (2018) 305-314.
- [P80] **M. Jeguirim**, M. Belhachemi, L. Limousy, S. Bennici, Adsorption/reduction of nitrogen dioxide on activated carbons: Textural properties versus surface chemistry – A review *Chemical Engineering Journal*, 347 (2018) 493-504.
- [P81] M. Lajili, C. Guizani, F.J Escudero Sanz, **M. Jeguirim**, Fast pyrolysis and steam gasification of pellets prepared from olive oil mill residues, *Energy* 150 (2018) 61-68.

[P82] I. Ghouma, **M. Jeguirim**, L. Limousy, A. Ouederni, S. Bennici, Factors influencing NO₂ adsorption/reduction on microporous activated carbon: Porosity vs. surface chemistry, *Materials* 11(2018) 622.

[P83] B. Khiari, **M. Jeguirim**, Pyrolysis of grape marc from Tunisian wine industry: Feedstock characterization, thermal degradation and kinetic analysis, *Energies* 11 (2018) 730.

[P84] I. Ghouma, M. Guiza, **M. Jeguirim**, A.A. Zorpas, L. Limousy, A. Ouederni, An optimization study of nickel catalyst supported on activated carbon for the 2-nitrophenol catalytic ozonation, *Desalination and Water Treatment* 112 (2018) 242–249.

[85] D. Peredo-Mancilla, C. Hort, **M. Jeguirim**, C. Matei Ghimbeu, L. Limousy, and D. Bessiere, Experimental Determination of the CH₄ and CO₂ Pure Gas Adsorption Isotherms on Different Activated Carbons, *J. Chem. Eng. Data*, 2018, 63 (8), pp 3027–3034.

[86] Dahou, T.; Defoort, F.; Thiéry, S.; Grateau, M.; Campargue, M.; Bennici, S.; **Jeguirim, M.**; Dupont, C. The Influence of Char Preparation and Biomass Type on Char Steam Gasification Kinetics. *Energies* 2018, 11, 2126.

BOOK CHAPTERS

[CL1] **M. Jeguirim**, L. Limousy, M. Labaki, Chapter 9 : Environmental applications of coffee processing by-products, *Handbook of Coffee Processing By-Products*, Elsevier, 2017, Pages 245-297.

[CL2] Limousy, **M. Jeguirim**, L M. Labaki, Chapter 11 : Energy applications of coffee processing by-products, *Handbook of Coffee Processing By-Products*, Elsevier, 2017, Pages 323-367

[CL3] K. Hadadd, **M. Jeguirim**, S. Jellali, N. Thevenin, L. Ruidavets, L. Limousy, Effectiveness use of olive mill wastewaters as impregnator agent for the production of biochars from Cypress sawdust : Chemical characterization and effects on a plant growth. *Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions*, Springer (2017), pp 1471-1473

[CL4] **M. Jeguirim**, L. Limousy, Chapter 1 : Biomass Feedstocks, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

[CL5] M. Belhachemi, B. Khiari, **M. Jeguirim**, A. Sepúlveda-Escribano, Chapter 3 : Biomass Derived Chars characterization, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

[CL6] B. Khiari, **M. Jeguirim**, L. Limousy, D. Bennici, Chapter 5 : Chars Combustion, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

[CL7] A. Tamosiunas, **M. Jeguirim**, Chapter 6 : Chars Gasification, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

[CL8] S. Jellali, A. Azzaz, M. Labaki, H. Akrouf, **M. Jeguirim**, Chapter 7 : Adsorbents for gas and water treatment, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

[CL9] **M. Jeguirim**, A. Zorpas, J. Navarro Pedreno, L. Limousy, P. Loizia, M. Stylianou, A. Agapiou, Chapter 12 : Sustainability assessment for the biomass derived chars production and

applications, Char and Carbon from Biomass : Production, Characterization and Applications, Elsevier 2018 (Under Press)

JOURNAL EDITORIALS

[E1] **M. Jeguirim**, L. Limousy, Modelling and Optimisation in Chemical and Biological Engineering: Application to Wastewater and Gas Treatment, International Journal of Chemical Reactor Engineering, 12 (2014)669-670

[E2] **M. Jeguirim**, L. Limousy, International Chemical Engineering Congress 2013 from fundamentals to applied chemistry and biochemistry, C.R. de Chimie, 18, (2015)11

[E3] L. Limousy, **M. Jeguirim**, International Renewable Energy Congress 2015: Focus on Biomass Energy, Environment and Sustainable Development, Comptes Rendus Chimie 19(2016) 419-422.

[E4] **M. Jeguirim**, L. Limousy, Process engineering for pollution control and waste minimization, Environmental Science and Pollution Research, 24(2017). 9827-9830.

[E5] **M. Jeguirim**, L. Limousy, Biomass Chars: Elaboration, Characterization and Applications, Energies 2017, 10(12), 2040.

[E6] **M. Jeguirim**, L. Limousy, “Strategies for Bioenergy Production from Agriculture and Agrifood Processing Residues”, Mejdı Jeguirim, Lionel Limousy, Biofuels, Under Press

BOOK EDITING

[B1] Biomass Chars: Elaboration, Characterization and Applications, Mejdı Jeguirim, Lionel Limousy, MDPI, 2017

[B2] Char and Carbon from Biomass : Production, Characterization and Applications, Mejdı Jeguirim, Lionel Limousy, Elsevier, 2018 (Under Progress)

SPECIAL ISSUES EDITING

[SI1] Guest Editor for the Special Issue “Modelling and Optimisation in Chemical and Biological Engineering: Application to Wastewater and Gas Treatment” Mejdı Jeguirim, Lionel Limousy, International Journal of Chemical Reactor and Engineering, Volume 12, Issue 2 (December 2014).

[SI2] Guest Editor for the Thematic Issue “International Chemical Engineering Congress 2013 : from fundamentals to applied chemistry and biochemistry”, Lionel Limousy, Mejdı Jeguirim, Comptes Rendus Chimie, Volume 18, Issue 1, Pages 1-120 (January 2015).

[SI3] Guest Editor for Thematic Issue “Biomass Energy, Environment and Sustainable Development, IREC 2015”, Lionel Limousy, Mejdı Jeguirim, Comptes Rendus Chimie, Volume 19, Issue 4 (April 2016).

[SI4] Guest Editor for the Special Issue “Process Engineering for Pollution Control and Waste Minimization”, Mejdı Jeguirim, Lionel Limousy, Environmental Science and Pollution Research, Volume 24, issue 11 (April 2017)

[SI5] Guest Editor for the Special Issue “Biomass Chars: Elaboration, Characterization and Applications”, Mejdı Jeguirim, Lionel Limousy, Energies (2017)

[SI6] Guest Editor for the Special Issue “Strategies for Bioenergy Production from Agriculture and Agrifood Processing Residues”, Mejdi Jeguirim, Lionel Limousy, Biofuels, Under Progress

[SI7] Guest Editor for the Special Issue “Biomass Chars: Elaboration, Characterization and Applications”, Second Edition, Mejdi Jeguirim, Lionel Limousy, Energies, Under Progress

CONFERENCE PRESENTATIONS, PROCEEDINGS AND ABSTRACTS

Oral communications

[C1] **M. Jeguirim**, V. Tschamber et P. Ehrburger, "Etude mécanistique de l'oxydation des suies par NO₂ dans les conditions d'échappement Diesel", 5ème Journées Tunisiennes sur les Ecoulements et les Transferts, JTET 2006, Monastir (Tunisie) du 19 au 21 Mars 2006.

[C2] V. Tschamber, F. Ammari, **M. Jeguirim**, P. Ehrburger, "Etude du mécanisme d'oxydation des suies par NO₂ et O₂ en présence d'un catalyseur 1%Pt/Al₂O₃" GECAT 2006, Mittelwhir (France) du 30 Mai au 1 Juin 2006.

[C3] V. Tschamber, **M. Jeguirim**, and P. Ehrburger, "Catalytic effect of platinum on the kinetics of carbon oxidation by NO₂ and O₂" CAPOC 7, 7th International Congress on Catalysis and Automotive Pollution Control, Bruxelles (Belgique) du 30 Août au 1 Septembre 2006.

[C4] A. Chouchène, B. Khiari, **M. Jeguirim**, F. Zagrouba “Effet de la taille des particules des grignons d'olives sur le procédé de la gazéification ”, Colloque Franco-Tunisien sur les milieux poreux, CFT 07, Sousse (Tunisie) du 13 au 15 Avril 2007.

[C5] A. Chouchene, B. Khiari, **M. Jeguirim**, D. Kehrl, F. Zagrouba “Thermal degradation behaviour during the pyrolysis and combustion of olive solid waste”, MCS5, Fifth Mediterranean combustion symposium, MCS5, Monastir (Tunisia) du 9 au 13/09/2007

[C6] **M. Jeguirim**, S. Dorge, E. Blanchard, S. Coupé et G. Trouvé, "The effect of olive solid waste parameters on the removal of heavy metals from aqueous solution" A greener chemistry for industry (GCI 2007), Lille (France) du 2 au 5 octobre 2007.

[C7] S. Dorge, **M. Jeguirim**, G. Trouvé “Caractérisation des polluants issus de la pyrolyse oxydante de miscanthus par thermogravimétrie” 1^{ère} Conférence internationale sur la conversion et la maîtrise de l'énergie, Sousse (Tunisie) du 11 au 13 Avril 2008.

[C8] **M. Jeguirim**, S. Dorge, B. Khiari, F. Zagrouba, G. Trouvé “The effect of some parameters on the using of olive solid waste as cadmium biosorbent” 1^{ère} Conférence internationale sur la conversion et la maîtrise de l'énergie, Sousse-Tunisie du 11-13/04/ 2008.

[C9] **M. Jeguirim**, V. Tschamber, K. Villani, J.F.Brilhac, J.A. Martens “Mechanistic study of carbon oxidation with NO₂ and O₂ in presence of Ru/Na-Y catalyst” 18th International Congress of Chemical and Process Engineering CHISA 2008, Prague, République Tchèque, 24-28 Août 2008.

[C10] Chouchene, **M. Jeguirim**, B. Khiari, G.Trouvé, F. Zagrouba “Thermal degradation behavior of olive solid waste: Influence of the particle size and oxygen atmosphere”, 11th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, 24 - 28 August 2008, Prague - Czech Republic.

[C11] S. Dorge, **M. Jeguirim**, G. Trouve “Characterization of pollutant emissions during miscanthus oxidation: a thermogravimetric study” 11th Conference on Process Integration,

Modelling and Optimisation for Energy Saving and Pollution Reduction, 24 - 28 August 2008, Prague - Czech Republic.

[C12] A Muller, **M. Jeguirim**, F. Demouge, P. Fromy, J.F. Brilhac, “Contribution to the Development of a Systemic Approach for Building Fire Safety Characterization” 7th Congress of the UES (Union Européenne de la Systémique, 17-19 December 2008, Lisbon – Portugal

[C13] A. Chouchène, **M. Jeguirim**, G. Trouvé, A. Favre-Réguillon, G. Le Buzit “Agropellets Production from the impregnation of Olive Mill WasteWater on Sawdust for Industrial Thermal Application”. 18th European Biomass Conference and Exhibition, 3-7 May 2010, Lyon, France.

[C14] A. Chouchène, **M. Jeguirim**, G. Trouvé, A. Favre-Réguillon, G. Le Buzit “A new valorisation strategy of olive mill wastewater: impregnation on sawdust and combustion” European Meeting on Chemical Industry and Environment, 17-19/05/2010 Mechelen, Belgium.

[C15] A. Chouchene, **M. Jeguirim**, A. Favre-Réguillon, G. Trouvé, G. Le Buzit, B. Khiari, F. Zagrouba “Energetic Valorization of Olive Mill WasteWater Impregnated on low cost absorbent: Sawdust versus Olive Solid Waste ” SEEP2010 Conference Proceedings, June 29th – July 2nd, Bari, Italy

[C16] F. Demouge, Ph. Fromy, A.Muller, **M. Jeguirim**, J-F. Brilhac, J-P Vantelon “Use of Stochastic FSE tool for Fire Scene Reconstruction” Interflam 2010, 5th-7th July 2010, University of Nottingham, UK.

[C17] Y. El may, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said "Kinetic study of date palm biomass pyrolysis via thermogravimetric analysis and kinetic study on palm of Phoenix Dactylifera" Chia Laguna, Cagliari, Sardinia, Italy, September 11-15, 2011.

[C18] A.Muller, F. Demouge, Ph. Fromy, **M. Jeguirim**, J-F. Brilhac, “presentation of a hybrid fire safety engineering tool called SCHEMA -SI” Chia Laguna, Cagliari, Sardinia, Italy, September 11-15, 2011.

[C19] Y. El may **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said " Kinetic study of date palm biomass pyrolysis via thermogravimetric analysis" 13^{ème} Congrès de la Société Française de Génie des Procédés, 29 novembre au 1^{er} décembre 2011, Lille, France.

[C20] Y. El may C. Guizani, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said " Experimental investigations on date palm residues for characterization and combustion" 4th International Conference on Engineering for Waste and Biomass Valorisation September 10-13, 2012 Porto, Portugal.

[C21] L. Limousy, Y. El May, **M. Jeguirim**, D. Kehrl, P. Dutournie" Pyrolysis and combustion characteristics of agropellets produced from spent ground coffee blended with different biomasses " 4th International Conference on Engineering for Waste and Biomass Valorisation September 10-13, 2012 – Porto, Portugal

[C22] M. Lajili, L. Limousy , **M. Jeguirim**, D. Kehrl, R. Said “The Use of Olive waste for Agropellets production: Characterization Study” The Fourth International Renewable Energy Congress, December 20-22, 2012 Sousse – Tunisia

[C23] Y. El may C. Guizani, **M. Jeguirim**, S. Dorge, G. Trouvé, R. Said, “Combustion tests of date palm residues in a small pellets boiler for energy recovery” The Fourth International Renewable Energy Congress, December 20-22, 2012 Sousse – Tunisia.

- [C24] L. Limousy, **M. Jeguirim**, S. Dorge, D. Kehrli, P. Dutournie, M. Lajili “Gaseous products and particulate matter emissions of biomass residential boiler fired with spent coffee grounds pellets” The Fourth International Renewable Energy Congress, December 20-22, 2012 Sousse – Tunisia.
- [C25] I. Ghouma, S. Dorge, **M. Jeguirim**, A. Ouederni “Adsorption of NO₂ on activated carbons elaborated from olive stone by physical and chemical activations” 5th International Conference on Carbon for Energy Storage/Conversion and Environment Protection, 23-26 September 2013 Mülheim a.d. Ruhr - Germany.
- [C26] N. Kraiem, S. Dorge, **M. Jeguirim**, M. Lajili, R. Said “Production de granulés à partir de l’impregnation des margines sur des grignons d’olives pour une valorisation énergétique” Les 8èmes Journées Tunisiennes sur les Ecoulements et les Transferts du 29 Nov. au 1er Déc. 2013 Sousse (El-Kantaoui) Tunisie.
- [C27] A. Chouchène, **M. Jeguirim**, G. Trouvé, “behaviour of copper and nickel after thermal treatment of contaminated olive solid waste” International Chemical Engineering Congress 2013, 16 – 19 December, Djerba, Tunisie.
- [C28] N. Kraiem, M. Lajili, S. Dorge, **M. Jeguirim**, S. Zerelli, R. Said “Disposal of Olive Mill Wastewater through Impregnation on Olive Mill Solid Waste and Combustion” International Chemical Engineering Congress 2013, 16 – 19 December, Djerba, Tunisie.
- [C29] I. Ghouma, S. Dorge, **M. Jeguirim**, A. Ouederni “Adsorption and reaction behavior for the adsorption of NO₂ on activated carbon” International Chemical Engineering Congress 2013, 16 – 19 December, Djerba, Tunisie.
- [C30] Y. Elmay, **M. Jeguirim**, M. Lajili, R. Said “Characterization and thermal degradation kinetics of Posidonia Oceanica” International Chemical Engineering Congress 2013, 16 – 19 December, Djerba, Tunisie.
- [C31] N. Kraiem, S. Dorge, **M. Jeguirim**, M. Lajili, S. Zerelli, R. Said “Heating performance and gaseous emissions of a domestic pellet boiler operating with olive mill wastewater/sawdust agropellets” International Renewable Energy Congress 2014, 25 – 27 March, Hammamet, Tunisie.
- [C32] L. Limousy, **M. Jeguirim**, S. Labbe, E. Fossard “Performance and Emissions Characteristics of Compressed Spent Coffee Ground/Sawdust and conventional beech logs in residential stove” International Renewable Energy Congress 2014, 25 – 27 March, Hammamet, Tunisie.
- [C33] I. Ghouma, **M. Jeguirim**, S. Dorge, A. Ouederni “Gaseous analysis and pyrolytic char characterisation during olive pomace pyrolysis” International Renewable Energy Congress 2014, 25 – 27 March, Hammamet, Tunisie.
- [C34] N. Kraiem, S. Dorge, **M. Jeguirim**, M. Lajili, R. Said, Characterization and thermal degradation of grape marc from Tunisian wine industry, 4th International Congress on Green Process Engineering , 07-10 Avril 2014, Seville (Espagne).
- [C35] N. Kraiem, N. Kechaou, **M. Jeguirim**, M. Lajili, R. Said, Energy recovery of olive mill wastewater through pellets production from their blend with lignocellulosic biomass: drying step investigation, 19th International Drying Symposium, 24-27 Août 2014, Lyon (France).
- [C36] K. Haddad, S. Jellali, A. Ben Hassen Trabelsi, **M. Jeguirim**, L. Limousy Investigations on phosphorus removal from aqueous solutions by biochars derived from pretreated cypress sawdust, Final

Conference of Sustainable water use in Mediterranean Regions, February 19– 21, 2015, Gammarth, Tunisia.

[C37] K. Haddad, S. Jellali, A. Ben Hassen Trabelsi, **M. Jeguirim**, L. Limousy Studies of phosphorus removal from aqueous solutions by biochars derived from chemically pretreated lignocellulosic biomass. Arab Chemistry Conference, March 16-18, 2015, Hammamet- Tunisia.

[C38]N. Kraiem, **M. Jeguirim**, L. Limousy, M. Lajili, S. Dorge, R. Said combustion of biomass residues from of tomato processing industry in domestic combustor, The Sixth International Renewable Energy Congress (IREC), March 25-27, 2015, Sousse, Tunisia.

[C39] M. Lajili, **M. Jeguirim**; M. Zribi, L. Limousy, Gaseous and Particulate matter emissions from a domestic boiler fired with pellets biofuels, Colloque Francophone du Carbone 2015, du 18 au 21 Mai 2015, aux Karellis en Savoie, France.

[C40] Z. Bouraoui, **M. Jeguirim**, C. Guizani, L. Limousy, C. Dupont, R. Gadiou, Gazéification au CO₂ des carbones issus de biomasse : influence de la structure, texture et la chimie de surface, Colloque Francophone du Carbone 2015, du 18 au 21 Mai 2015, aux Karellis en Savoie, France.

[C41]I. Ghouma, **M. Jeguirim**, L. Limousy, A. Ouederni Amoxicillin removal from aqueous solution using activated carbon prepared by chemical activation of olive stone, The Sixth International Renewable Energy Congress (IREC), March 25-27, 2015, Sousse, Tunisia.

[C42] K. Haddad, S. Jellali, A. Ben Hassen Trabelsi, **M. Jeguirim**, L. Limousy Conversion of Cypress sawdust by slow pyrolysis: Effect of temprature, chemical pretreatment and biochar use for phosphorus removal from synthetic solution, Congrès de la Société Chimique de France, July 4-9, 2015, Lille-France

[C43] Z. Bouraoui, **M. Jeguirim**, L. Limousy, C. Dupont, R. Gadiou, CO₂ gasification of woody biomass chars: the influence of K and Si on char reactivity, 10th European Congress of Chemical Engineering, 27 Sep – 01 Oct 2015, Nice, France.

[C44] B. Wanassi , I. Ben Hariz, C. Matei Ghimbeu, C. Vaultot, M. Ben Hassen, **M. Jeguirim**, Valorization of cotton waste generated from the Tunisian textile industry through the production of adsorbents carbonaceous materials, The Seventh International Renewable Energy Congress (IREC), March 24-26, 2016, Hammamet, Tunisia.

[C45] J. Mabrouki, M.A. Abassi, K. Guedri, A. Omri, K. Haddad, **M. Jeguirim**, Kinetic and characteristic studies on the pyrolysis of vine stems, almond shell and Ziziphus wood using thermo-gravimetric analysis, The Seventh International Renewable Energy Congress (IREC), March 24-26, 2016, Hammamet, Tunisia.

[C46]**M. Jeguirim**, A. Zorpas, N. Kraiem, M. Lajili, Y. Leva, L. Limousy, Chemometric analysis for the relationship between mineral contents and particle matter distribution during pellets combustion, 4th International Conference on Sustainable Solid Waste Management, Limassol, 23–25 June 2016.

[C47] K. Haddad, **M. Jeguirim**, C. Guizani, S. Jellali, L. Limousy, Influence of Alkali and alkaline earth metallic (AAEM) species on pyrolysis process of Cypress sawdust, 4th International Conference on Sustainable Solid Waste Management, Limassol, 23–25 June 2016.

[C48] K. Haddad, **M. Jeguirim**, S. Jellali, L. Limousy Effect of biomass pre-treatment and pyrolysis temperatures on key physicochemical properties of cypress sawdust-derived biochar, EMR 2017 conference, Lisbon, Portugal, 5-7 April 2017

- [C49] Z. Bouraoui, **M. Jeguirim**, C. Guizani, L. Limousy, C. Dupont, R. Gadiou, Gazéification de biochars au CO₂ : Influence de la texture, la structure et des éléments minéraux sur la réactivité, Colloque combustion des biocarburants, de la biomasse et de ses dérivés, 8 novembre 2017, Lille, France.
- [C50] L. Limousy, **M. Jeguirim**, M. Labaki, Coffee processing by-products valorization: An overview of energy and environmental applications, 5th International Conference on Sustainable Solid Waste Management, Athenes (Grèce), 21–24 Juin 2017
- [C51] **M. Jeguirim**, K. Haddad, N. Kraiem, A. Zorpas, S. Jellali, L. Limousy, Olive mill wastewater: From a pollutant to green fuels, agricultural water source and bio-fertilizer, 5th International Conference on Sustainable Solid Waste Management, Athenes (Grèce), 21–24 Juin 2017.
- [C52] A. A. Zorpas, V. Inglezakis, T. Daddi, **M. Jeguirim**, L. Limousy, J. Navarro Pedreño, M. Doula, P. Loizia, I. Voukkali, N. Ttofali, S. Zorpa, Differences between waste compositional analysis and management system from European and Mediterranean Area as well as from Central Asia, 5th International Conference on Sustainable Solid Waste Management, Athenes (Grèce), 21–24 Juin 2017.
- [C53] D. Peredo-Mancilla, C. Hort, D. Bessieres, **M. Jeguirim**, L. Limousy, New Adsorbents for the Biogas Upgrading process, Biotechniques 2017, La Corogne (Espagne), 19 – 21 Juillet 2017.
- [C54] K. Haddad, **M. Jeguirim**, L. Limousy, S. Bennici, Alkaline and alkaline earth metals impact on the gasification of lignocellulosic biomass derived chars The Ninth International Renewable Energy Congress (IREC), March 20-22, 2018, Hammamet, Tunisia
- [C55] D.P. Mancilla, D. Bessièrès, C. Hort, **M. Jeguirim**, C. Matei Ghimbeu, Separation of CH₄/CO₂ by microporous activated carbon for the biogas upgrading The Ninth International Renewable Energy Congress (IREC), March 20-22, 2018, Hammamet, Tunisia
- [C56] M. Tsangas, A.A. Zorpas, **M. Jeguirim**, L. Limousy, Cyprus energy resources and their potential to increase sustainability, The Ninth International Renewable Energy Congress (IREC), March 20-22, 2018, Hammamet, Tunisia
- [C57] T. Dahou, F. Defoort, S. Thiery, M. Gâteau, M. Campargue, S. Bennici, **M. Jeguirim**, C. Dupont, Influence des conditions de pyrolyse et du type de biomasse sur la cinétique de gazéification à la vapeur d'eau du char, Colloque Francophone du Carbone, Obernai 15-18 Mai, 2018.
- [C58] A. Ibn Ferjani, **M. Jeguirim**, N. Thevenin, S. Jellali, H. Arkout, S. Bennici, L. Limousy, Soil amendment with pyrolysed grape marc residue: a circular economy study, 6th International Conference on Sustainable Solid Waste Management, Naxos (Grèce), 13–16 Juin 2018.
- [C59] P. Dutournié, **M. Jeguirim**, L. Limousy, Drying of olive waste mill wastewater for material recovery, 6th International Conference on Sustainable Solid Waste Management, Naxos (Grèce), 13–16 Juin 2018.
- [C60] **M. Jeguirim**, L. Limousy, K. Thabet, L. Josien, L. Michelin, C. Vaultot, S. Bennici, Effect of Mg and K inorganic species on the chars properties derived from grape marc pyrolysis, 6th International Conference on Sustainable Solid Waste Management, Naxos (Grèce), 13–16 Juin 2018.

[C61] T. Dahou, F. Defoort, S. Thiery, M. Grateau, M. Campargue, S. Bennici, **M. Jeguirim**, C. Dupont, Comparative Influence on pyrolysis conditions and biomass type on char steam gasification kinetics, 7th international symposium on energy from biomass and waste, 15-18 Octobre, Venise (Italie)

Posters

[CA1] A. Chouchene, **M. Jeguirim**, B. Khiari, H. Mahzoul, F. Zagrouba, G. Trouvé "The effect of olive solid waste parameters on the thermal degradation behaviour" A greener chemistry for industry (GCI 2007), Lille (France) du 2 au 5 octobre 2007.

[CA2] S. Dorge, D. Kehrli, **M. Jeguirim**, G. Trouvé "Study of the aerosol formation during the oxidation of wood samples and lignocellulosic polymers by thermogravimetry" 11th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction, 24 - 28 August 2008, Prague - Czech Republic.

[CA3] **M. Jeguirim**, V. Tschamber, K. Villani, J.F.Brilhac, J.A. Martens " Kinetics and mechanism of carbon oxidation with NO₂ and O₂ in presence of Ru/Na-Y catalyst" 5th International Conference on Environmental Catalysis, Belfast 31st August to 3rd September 2008

[CA4] A. Chouchène, **M. Jeguirim**, D. Kehrli, G. Trouvé, A. Favre-Réguillon, G. Le Buzit "Thermogravimetric and reaction kinetic of olive mill wastewater/sawdust blends". Sixth Mediterranean Combustion Symposium, 7-11 June 2009 Porticcio – Ajaccio, Corsica, France.

[CA5] A Muller, **M. Jeguirim**, F Brenez, P Fromy, F Demouge, J.F. Brilhac "The use of fire dynamic simulator for fire scene investigation". Sixth Mediterranean Combustion Symposium, 7-11 June 2009 Porticcio – Ajaccio, Corsica, France.

[CA6] A. Chouchene, **M. Jeguirim**, B. Khiari, F. Zagrouba, G.Trouvé "Pyrolysis and char oxidation of olive solid waste : Analysis and reaction kinetics", 12ème Congrès de la Société Française de Génie des Procédés, 14-16 Octobre 2009, Marseille.

[CA7] A. Chouchene, **M. Jeguirim**, B. Khiari, F. Zagrouba, G.Trouvé "Biosorption of Copper and Nickel from aqueous solution by Olive Solid Waste", 12ème Congrès de la Société Française de Génie des Procédés, 14-16 Octobre 2009, Marseille.

[CA8] **M. Jeguirim**, G. Trouvé "Pyrolysis kinetics and combustion characteristics of Miscanthus Giganteus pellets". 18th European Biomass Conference and Exhibition, 3-7 May 2010, Lyon, France.

[CA9] A.Muller, F. Demouge, Ph. Fromy, **M. Jeguirim**, J-F. Brilhac, "Développement d'une méthode de modélisation pour l'évaluation de la performance de stratégies de mise en sécurité incendie dans les bâtiments", WISG 2011, 25-26 Janvier 2011, Université Technologique de Troyes.

[CA10] N. Zouaoui, M. Issa, **M. Jeguirim**, D.Kehrli, J.F. Brilhac, CeO₂ Catalytic activity for soot oxidation under NO/O₂ in loose and tight contact, 6th European Conference Paul Sabatier on Catalysis, 26th/29th September 2011, Strasbourg.

[CA11] M. Lajili, J.E. Sanz, C. Guizani, **M. Jeguirim**, Gasification of Char from Oleic by-products under H₂O-N₂ atmosphere, The Sixth International Renewable Energy Congress (IREC), March 25-27, 2015, Sousse, Tunisia.

[CA12] Z. Bouraoui, C. Dupont, **M. Jeguirim**, C. Guizani, L. Limousy, R. Gadiou CO₂ gasification of various biomass chars: The effect of the textural, structural and chemical

properties on reactivity, 23rd European Biomass Conference and Exhibition, 1-4 June 2015, Wien, Austria.

[CA13] K. Haddad, **M. Jeguirim**, S. Jellali, N. Thevenin, L. Ruidavets, L. Limousy, Potential use of olive mill wastewater in the production of biochar for agricultural purposes, International Conference Advanced Oxidation Process 3rd AOP'TUNISIA for Sustainable Water Management, Hammamet: November, 2 – 4 , 2017

[CA14] A. Ibn Ferjani, **M. Jeguirim**, S. Jellali, H. Akrouf, C. Courson, N. Thevenin, L. Limousy, Characterization of biochars produced from grape marc and assessment of their nutrients release ability. International Conference Advanced Oxidation Process 3rd AOP'TUNISIA for Sustainable Water Management, Hammamet: November, 2 – 4 , 2017.

[CA15] E. Berrich Betouche, R. Balti, S. Jellali, A. Chouchène, B. Ben Thayer, **M. Jeguirim**, Valorisation énergétique et agronomique de coques d'amande brutes et imprégnées par des margines, Colloque combustion des biocarburants, de la biomasse et de ses dérivés, 8 novembre 2017, Lille, France.

COURSES TAUGHT

Undergraduate Courses

General Chemistry (Fall 2005)

Heat Transfer (Spring 2007, 2008, 2009)

Graduate Courses

Heat Transfer (Fall 2007-2017)

Fluid Dynamics (Fall 2007-2017)

Convection Heat Transfer (Spring 2006-2008)

Radiation Heat Transfer (Spring 2006-2008)

Fire Simulation (Spring 2006)

Combustion (Fall 2007-2017)

Process Engineering (Fall 2005-2008)

Solar Energy (Fall 2011)

Biomass Energy (Fall 2011-2017)

Heating pump (Fall 2014-2017)

Tools and Methods for Renewable Energy (Fall 2007-201)

UNIVERSITY ACTIVITIES

Head of Energy and HVAC Professional Degree, Specialty: Renewable Energy and Sustainable Development (EN2D) at the Faculty of Science and Technology of Mulhouse from September 2007 to August 2012 and from September 2015 to October 2017.

- Animation of the teaching staff and organizing schedules.

- Supervision tutored projects.

- Follow-up practical trainee placements.

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