

Publications in peer reviewed International Journals 2010-2019

➤ 2019

- 1) K. Zeng, R. Li, D. Pham Minh, E. Weiss-Hortala, A. Nzihou, X. He, G. Flamant. Solar pyrolysis of heavy metal contaminated biomass for gas fuel production. *Energy*, 187, 116016, 2019
- 2) L.M. Romero Millan, F.E. Vargas, A. Nzihou. Catalytic Effect of Inorganic Elements on Steam Gasification Biochar Properties from Agrowastes. *Energy & Fuels*. 33, 9, 8666-8675, 2019
- 3) S. Jain, D. Newman, A. Nzihou, H. Dekker, P. Le Feuvre, H. Richter, F. Gobe, C. Morton, R. Thompson. Global Potential of Biogas Report. *World Biogas Association*. June 2019
- 4) M. Ducousoo, E. Weiss-Hortala, N. Lyczko, A. Nzihou, M. Castaldi, Marco. 110th Anniversary: Syngas production enhancement using calcium and potassium impregnated chars. *Industrial & Engineering Chemistry Research*, 58 (33), 15134-15141, 2019
- 5) E. Ampaw, T. A. Owosenia, F. Dub, N. Pinilla, J. Obayemi, J. Hu, P-M. Nigay, A. Nzihou, V. Uzonwanne, Z. Kana, M. Dewoolkar, T. Tan, W. Soboyejo. Compressive Deformation and Failure of Trabecular Structures in A Turtle Shell. *Acta Biomaterialia*. 97, 535-543, 2019
- 6) Y. Xie, K. Zeng, G. Flamant, H. Yang, N. Liu, X. He, X. Yang, A. Nzihou, H. Chen. Solar pyrolysis of cotton stalk in molten salt for bio-fuel production. *Energy*, 179, 1124-1132, 2019
- 7) M. Hasan, D.A. Gopakumar, V. Arumughan, Y.B. Pottathara, S. K.S, D. Pasquini, M. Bračič, B. Seantier, A. Nzihou, S. Thomas, S. Rizal, H.P.S. Abdul Khalil. Robust Superhydrophobic Cellulose Nanofiber Aerogel for multifunctional Environmental Applications. *Polymers*, 11(3), 495, 2019.
- 8) C. Block, A. Ephraim, E. Weiss Hortala, D. Pham Minh, A. Nzihou, C. Vandecasteele, Co-pyrogasification of Plastics and Biomass, a Review. *Waste and Biomass Valorization*, 10, 483-509, 2019
- 9) M. Hervy, E. Weiss-Hortala, D. Pham Minh, H. Dib, A. Villot, C. Gerente, S. Berhanu, A. Chesnaud, A. Thorel, L. Le Coq, A. Nzihou. Reactivity and deactivation mechanisms of pyrolysis chars from bio-waste during catalytic cracking of tar. *Applied Energy*, 237, 487-499, 2019
- 10) A. Nzihou, B. Stanmore, N. Lyczko, D. Pham Minh. The Catalytic Effect of Inherent and Adsorbed Metals on the Fast/Flash Pyrolysis of Biomass: A Review. *Energy*, 170, 326-337, 2019
- 11) L. M. Romero Millan, F. E. Sierra Vargas, A. Nzihou. Steam gasification behavior of tropical agrowastes: a new modeling approach based on the inorganic composition. *Fuel*, 239, 45-53, 2019
- 12) M. Dia, R. Zentar, N. Abriak, A.Nzihou, G. Depelsenaire, A.Gerneau. Effect of phosphatation and calcination on the environmental behaviour of sediments. *International Journal of Sediment Research* , 34 (5), 486-495, 2019
- 13) B. Ren, Y. Zhao, N. Lyczko, A. Nzihou. Current Status and Outlook of Odor Removal Technologies in Wastewater Treatment Plant. Review. *Waste and Biomass Valorization*. 10 (6), 1443-1458, 2019
- 14) M.Galera Martínez, D. Pham Minh, A. Nzihou, P. Sharrock. Valorization of calcium carbonate-based solid wastes for the treatment of hydrogen sulfide in a semi-continuous reactor. *Chemical Engineering Journal*, 360, 1167-1176, 2019
- 15) N. Lopez Ferber, Q.Falcoz, D.Pham Minh, J.F.Hoffmann, A.Meffre, A.Nzihou, V.Goetza. Flexibility and robustness of a high-temperature air/ceramic thermocline heat storage pilot. *Journal of Energy Storage*, 21, 393-404, 2019
- 16) A. Ephraim, L. Dan Ngo, D. Pham Minh, D. Lebonnois, C. Peregrina, P. Sharrock, A. Nzihou. Valorization of Waste-Derived Inorganic Sorbents for the Removal of HCl in Syngas. *Waste and Biomass Valorization*, 10 (11), 3435–3446, 2019

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- 1) O. Wesley Awe, J. Lu, S. Wu, Yaqian Zhao, A. Nzihou, N. Lyczko, D. Pham Minh. Effect of Oil Content on Biogas Production, Process Performance and Stability of Food Waste Anaerobic Digestion. *Waste and Biomass Valorization*, 9, 2295–2306, 2018
- 2) P.M. Nigay, J.D. Obayemi, C.E. White, A. Nzihou, W.O. Soboyejo, Removal Mechanisms of Contaminants in Ceramic Water Filters. *Journal of Environmental Engineering*, 144(12), 2018.
- 3) R. Munirathinam, D. Pham Minh, A. Nzihou. Effect of the Support and Its Surface Modifications in Cobalt-Based Fischer-Tropsch Synthesis. *Ind. Eng. Chem. Res.*, 57 (48), 16137–16161, 2018

- 4) J. Dong, Y. Tang, A. Nzihou, Y. Chi, E. Weiss-Hortala, M. Ni, Z. Zhou. Comparison of Waste-to-Energy technologies of gasification and incineration using life cycle assessment: case studies in Finland, France and China. *Accepted in Journal of Cleaner Production*, 203, 287-300, 2018.
- 5) M. Hervy, A. Villot, C. Gerente, D. Pham Minh, L. Le Coq, E. Weiss-Hortala, A. Nzihou. Catalytic cracking of ethylbenzene as tar surrogate using pyrolysis chars from wastes. *Accepted in Biomass and Bioenergy*, 117, 86-95, 2018.
- 6) A. Ephraim, D. Pham Minh, D. Lebonnois, C. Peregrina, P. Sharrock, A. Nzihou. Co-pyrolysis of wood and plastics: Influence of plastic type and content on product yield, gas composition and quality. *Fuel*, 231, 110-117, 2018
- 7) B. Rego de Vasconcelos, D. Pham Minh, N. Lyczko, T. S. Phan, P. Sharrock, A. Nzihou. Upgrading greenhouse gases (methane and carbon dioxide) into syngas using nickel-based catalysts. *Fuel*, 226, 195-203, 2018
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- 9) E. Daouk, R. Sani, D. Pham minh, A. Nzihou. Thermo-conversion of solid recovered fuels under inert and oxidative atmospheres: gas composition and chlorine distribution. *Fuel*, 225, 54-64, 2018
- 10) S. Berhanu, M. Hervy, E. Weiss-Hortala, H. Proudhon, M-H. Berger, A. Chesnaud, M. Faessel, A. King, D. Pham Minh, A. Villot, C. Gérente, A. Thorel, L. Le Coq, A. Nzihou. Advanced characterization unravels the structure and reactivity of wood-based chars. *Journal of Analytical and Applied Pyrolysis*, 130, 79-89, 2018.
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- 12) T. Son Phan, A. R. Sane, B. Rêgo de Vasconcelos, D. Pham Minh, P. Sharrock, D. Grouset, A. Nzihou. Hydroxyapatite supported bimetallic cobalt and nickel catalysts for syngas production from dry reforming of methane. *Applied Catalysis B: Environmental*, 224, 310-321, 2018.
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- 14) M. Said, L. Cassayre, J.L. Dirion, A. Nzihou, X. Joulia. Influence of nickel on biomass pyro-gasification: coupled thermodynamic and experimental investigations. *I&EC Research*, 57 (20), 9788-9797, 2018.
- 15) P.M. Nigay, A. Nzihou, T. Cutard. The impact of the particle size distribution of organic additives on the microstructure of a clay ceramic and its thermal and mechanical properties. *Journal of Materials in Civil Engineering*, 30 (4), 2018.
- 16) B. Rego de Vasconcelos, D. Pham minh, A. Nzihou, P. Sharrock. Regeneration study of Ni/hydroxyapatite spent catalyst from dry reforming. *Catalysis*, 310, 107-115, 2018.
- 17) O. W. Awe, L.S. Wu, Y. Zhao, A. Nzihou, N. Lyczko, D. Pham Minh. Effect of Oil Content on Biogas Production, Process Performance and Stability of Food Waste Anaerobic Digestion, *Waste and Biomass Valorization*, 9 (12), 2295-2306, 2018.

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- 1) M. Castaldi, J. van Deventer, J. M. Lavoie, J. Legrand, A. Nzihou, Y. Pontikes, X. Py, C. Vandecasteele, P. T. Vasudevan, W. Verstraete. Progress and Prospects in the Field of Biomass and Waste to Energy and Added-Value Materials. *Waste and Biomass Valorization*, 8 (6), 1875–1884, 2017
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- 5) P.M. Nigay, R. Sani, T. Cutard, A. Nzihou. Modeling of the thermal and mechanical properties of clay ceramics incorporating organic additives. *Materials Science & Engineering A*, 708, 375-382, 2017.

- 6) D. Pham Minh, A. R. Sane, S. Nawal, P. Sharrock, A. Nzihou, Alkali polyphosphate as new potential materials for thermal energy storage. *Solar Energy*, 157, 277-283, 2017
- 7) P.M. Nigay, A. Nzihou, C.E. White, W.O. Soboyejo. Structure and Properties of Clay Ceramics for Thermal Energy Storage. *Journal of the American Ceramic Society*, 100 (10), 4748-4759, 2017
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- 9) R. Sani, A. Nzihou. Production of clay ceramics using agricultural wastes: study of properties, energy savings and environmental indicators. *Applied Clay Science* 146, 106-114, 2017
- 10) L.M. Romero Millan, A. Nzihou, F.E. Sierra Vargas. Kinetic analysis of tropical lignocellulosic agrowastes pyrolysis. *BioEnergy Research* 10, 832-845, 2017
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- 14) P.M. Nigay, T.Cutard, A. Nzihou. The impact of heat treatment on the microstructure of a clay ceramic and its thermal and mechanical properties. *Ceramics International*, 43, 1747-1754, 2017
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- 6) S.Q. Chen, F. Wang, M. Milhe, P. Arlabosse, FL. Liang, Y.Chi, A. Nzihou, J.Yan. Experimental and theoretical research on agitated contact drying of sewage sludge in a continuous paddle dryer. *Drying Technology*, 364 (16), 1979-1990, 2016

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