

## Publications in peer reviewed International Journals 2010-2020

### > 2020

- 1) D. Gopakumar, A.R. Pai, Y.B. Pottathara, D. Pasquini, L.C. de Morais, A. Nzihou, S. Thomas. Flexible Papers Derived from Polypyrrole Deposited Cellulose Nanofibers for Enhanced Electromagnetic Interference Shielding in Gigahertz Frequencies. *Journal of Applied Polymer Science*. 138 (16) 50262, 2020
- 2) D. Pham Minh, H. Pham, N. Xuan Hoan, A. R. Sane, N. Semlal, R. Boulif, A. Nzihou, C. Toussaint, A. Germeau, P. Sharrock. Binary and ternary alkali polyphosphates (MPO<sub>3</sub>, M = Li, Na, K) for thermal energy storage. *Journal of Thermal Analysis and Calorimetry*. (<https://doi.org/10.1007/s10973-020-10346-1>) Published online: October 2020
- 3) A. Ephraim, V. Pozzobon, D. Lebonnois, C. Peregrina, P. Sharrock, A. Nzihou, D. Pham Minh. Pyrolysis of wood and PVC mixtures: thermal behaviour and kinetic modelling. *Biomass Conversion and Biorefinery*. (<https://doi.org/10.1007/s13399-020-00952-2>) Published online: August 2020
- 4) K. Zeng, R. Rui; D. Pham Minh, E. Weiss-Hortala, A. Nzihou, D. Zhong, G. Flamant. Characterization of char generated from solar pyrolysis of heavy metal contaminated biomass. *Energy*. 206, 118128, 2020
- 5) N. Lopez Ferber, D. Pham Minh, Q. Falcoz, A. Meffre, N. Tessier-Doyen, A. Nzihou, V. Goetz. Ceramics from Municipal Waste Incinerator Bottom Ash and Wasted Clay for Sensible Heat Storage at High Temperature. *Waste and Biomass Valorization* 11, 3107–3120, 2020
- 6) M. Galera Martinez, 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: Part II - Slurry bubble column pilot. *Chemical Engineering Journal*. 390, 124576, 2020.
- 7) L. M. Romero, N. Lyczko, A. Nzihou, G. Antonini, E. Moreau, H. Richardeau, C. Coste, S. Madoui, S. Durécu. New Insights on Mercury Abatement and Modeling in a Full-Scale Municipal Solid Waste Incineration Flue Gas Treatment Unit. *Waste Management*. 113, 270-279, 2020Y. Tang, J. Dong, G.
- 8) Y. Zheng, Y. Chi, A. Nzihou, E. Weiss-Hortala, C. Ye. Environmental and exergetic life cycle assessment of incineration- and gasification-based waste to energy systems in China. *Energy*. 205, 118002, 2020
- 9) M. Comneh, D. Dodoo-Arhin, E. Acquaye, I. Nimako Baah, N. Kwabla Amoatey, J. Hawkins Ephraim, D. O. Obada, D. Pham Minh, A. Nzihou. Plastic Fuel Conversion and Characterisation: A Waste Valorization Potential for Ghana. *MRS Advances*. 5 (26) SI, 1349-1356, 2020
- 10) H. J. Maria, M.G. Thomas, M. Morreale, F. P. La Mantia, A. Nzihou, K. Joseph, D. Rouxel, S. C.M. Fernandes, N. Kalarikkal, S. Thomas. Gas Barrier, rheological and mechanical properties of Immiscible Natural Rubber/ Acrylonitrile Butadiene Rubber (NR/NBR) Blend Nanocomposites. *Materials*, 13, 2654, 2020
- 11) J. Dong, H. K. Jeswanic, A. Nzihou, A. Azapagic. The environmental cost of recovering energy from municipal solid waste. *Applied Energy*. 267, 114792, 2020
- 12) J. Dong, Y. Tang, A. Nzihou, E. Weiss-Hortala. Effect of steam addition during carbonation, calcination or hydration on reactivation of CaO sorbent for CO<sub>2</sub> capture. *Journal of CO<sub>2</sub> Utilization*. 39, 101167, 2020.
- 13) B. Onwona-Agyeman, N. Lyczko, D. Pham Minh, A. Nzihou, A. Yaya. Characterization of some selected Ghanaian clay minerals for potential industrial applications. *Journal of Ceramic Processing Research*. 21 (1), 35-41, 20200
- 14) P.A. Nizam, V. Arumughan, A. Baby, M.A. Sunil, D. Pasquini, A. Nzihou, S. Thomas, D.A. Gopakumar. Mechanically Robust Antibacterial Nanopapers Through Mixed Dimensional Assembly for Anionic Dye Removal. *Journal of Polymers and the Environment*. 28 (4), 1279-1291, 2020.3
- 15) B. Ren, N. Lyczko, A. Nzihou, Y. Zhao. Integrating alum sludge with waste-activated sludge in co-conditioning and dewatering: A case study of a city in south France. *Environmental Science and Pollution Research*. 27, 14863–14871, 2020
- 16) B. Ren, N. Lyczko, A. Nzihou, Y. Zhao. Alum sludge as an efficient sorbent for hydrogen sulfide removal: Experimental, mechanisms and modeling studies. *Chemosphere*. 248, 126010, 20207.
- 17) B. Rego de Vasconcelos, D. Pham Minh, E. Martins, A. Germeau, P. Sharrock, A. Nzihou. A comparative study of hydroxyapatite- and alumina-based catalysts in dry reforming of methane. *Chemical Engineering & Technology*. 4 (43) Special Issue: SI, 698-704, 2020.

- 18) A. C. Ghogia, S. Cayez, B. F. Machado, A. Nzihou, P. Serp, K. Soulantica, D. Pham Minh. Hydrogen spillover in the Fischer-Tropsch synthesis on carbon-supported cobalt catalysts. *ChemCatChem*. 12, 1117–1128, 2020.
- 19) N. Lopez Ferber, D. Pham Minh, Q. Falcoz, A. Meffre, N. Tessier-Doyen, A. Nzihou, V. Goetz. Development of a Thermal Energy Storage Pressed Plate Ceramic Based on Municipal Waste Incinerator Bottom Ash and Waste Clay. *Waste and Biomass Valorization*, 11 (2), 2020
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- 21) M. Martinez, X. Duret, T. Ghislain, D. Pham Minh, A. Nzihou, J-M. Lavoie. A simple process for the production of fuel additives using residual lignocellulosic biomass. *Fuel*. 264, 116702, 2020.
- 22) A. R. Sane, P.-M. Nigay, D. Pham Minh, C. Toussaint, A. Germeau, N. SemlaL, R. Boulif, A. Nzihou. An investigation of the physical, thermal and mechanical properties of fired clay/SiC ceramics for thermal energy storage. *Journal of Thermal Analysis and Calorimetry*. 140 (5), 2087-2096, 2020.
- 23) B. Rego de Vasconcelos, D. Pham Minh, E. Martins, A. Germeau, P. Sharrock, A. Nzihou. Highly efficient hydroxyapatite-supported nickel catalysts for dry reforming of methane. *International Journal of Hydrogen Energy*. 45 (36), 18502-18518, 2020.

➤ [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.
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- 4) M. Ducouso, 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
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- 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. Bračić, 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) P.M. Nigay, A.A. Salifu, J.D. Obayemi, C.E. White, A. Nzihou, W.O. Soboyejo. Assessment of Ceramic Water Filters for the Removal of Bacterial, Chemical, and Viral Contaminants. *Journal of Environmental Engineering*. 145 (10), 04019066, 2020.
- 10) 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.
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- 12) 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.
- 13) M. Dia, R. Zentar, N. Abriak, A. Nzihou, G. Depelsenaire, A. Germeau. Effect of phosphatation and calcination on the environmental behaviour of sediments. *International Journal of Sediment Research*. 34 (5), 486-495, 2019
- 14) 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.

- 15) 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
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- 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.
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- 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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- 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.
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