

4.2 Publications

4.2.1 Articles in refereed international scientific journals and series (145)

1. Abejón, R., Abejón, A., Biasi, P., Gemo, N., Garea, A., Salmi, T., Irabien, A., **Hydrogen peroxide obtained via direct synthesis as alternative raw material for ultrapurification process to produce electronic grade chemicals**, *Journal of Chemical Technology and Biotechnology* 91 (2016), 1136-1148
2. Agar, D., DeMartini, N., Hupa, M., **Influence of elevated pressure on the torrefaction of wood**, *Energy Fuels* 30 (2016) 3, 2127-2136
3. Ahlkvist, J., Wärnå, J., Salmi, T., Mikkola, J.-P., **Heterogeneously catalyzed conversion of nordic pulp to levulinic and formic acids**, *Reaction Kinetics, Mechanisms and Catalysis* 119, 2 (2016) 415-427
4. Aid, T., Hyvärinen, S., Vaher, M., Koel, M., Mikkola, J.-P., **Saccharification of lignocellulosic biomasses via ionic liquid pretreatment**, *Industrial Crops and Products* 92 (2016) 336-341
5. Ait Aissa, K., Zheng, J. L., Estel, L., Levener, S., **Thermal stability of epoxidized and carbonated vegetable oils**, *Organic Process Research & Development* 20(5) (2016) 948-953
6. Ajo, P., Krzmyk, E., Preis, S., Kornev, I., Kronberg, L., Louhi-Kultanen, M., **Pulsed corona discharge oxidation of aqueous carbamazepine micropollutant**, *Environmental Technology* 37 (2016), 2072-2081
7. Akieh-Pirkanniemi, M., Lisak, G., Arroyo, J., Bobacka, J., Ivaska, A., **Tuned ionophore-based bi-membranes for selective transport of target ions**, *Journal of Membrane Science* 511 (2016) 76-83
8. Alakalhunmaa, S., Parikka, K., Penttilä, P.A., Cuberes, T., Willför, S., Salmén, L., Mikkonen, K.S., **Softwood-based sponge gels**, *Cellulose* 23 (2016) 5, 3221-3238
9. Aldea, S., Snåre, M., Eränen, K., Grenman, H., Mikkola, J.-P., Salmi, T., Murzin, D. Yu., **Crystallization of nano-calcium carbonate: influence of process parameters**, *Chemie-Ingenieur Technik* 88 (2016) 1609-1616
10. An, Q., Jiao, L., Jia, F., Ye, J., Li, F., Gan, S., Zhang, Q., Ivaska, A., Niu, L., **Robust single-piece all-solid-state potassium-selective electrode with monolayer-protected Au clusters**, *Journal of Electroanalytical Chemistry* 781 (2016) 272-27
11. Antonio, J. L., Höfler, L., Lindfors, T., Córdoba de Torresi. S. I., **Electrocontrolled swelling and water uptake of a three-dimensional conducting polypyrrole hydrogel**, *ChemElectroChem* 3 (2016) 2146-2152
12. Anugwom, I., Rujana, L., Wärnå, J., Hedenström, M., Mikkola, J.-P., **In quest for the optimal delignification of lignocellulosic biomass using hydrated, SO₂ switched DBU MEASIL switchable ionic liquid**, *Chemical Engineering Journal* 297 (2016) 256-264

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13. de Araujo Filho, C.A., Mondal, D., Haase, S., Wärnå, J., Eränen, K., Mikkola, J.-P., Salmi, T., **Dynamic modelling of homogeneously catalysed glycerol hydrochlorination in bubble column reactor**, *Chemical Engineering Science* 149 (2016) 277-295
 14. de Araujo Filho, C.A., Eränen, K., Mikkola, J.-P., Salmi, T., **Comparative study of reactive flash distillation vs semibatch reactor technologies for the glycerol hydrochlorination with gaseous HCl**, *Industrial & Engineering Chemistry Research* 55 (2016) 19, 5500-5513
 15. de Araujo Filho, C., Heredia, S., Eränen, K., Salmi, T., **Advanced millireactor for the kinetic investigation of very rapid reactions: Dehydrochlorination of 1,3-dichloro-2-propanol to epichlorohydrin**, *Chemical Engineering Science* 149 (2016) 35-41
 16. Asherman, F., Cabot, G., Crua, C., Estel, L., Gagnepain, C., Lecerf, T., Ledoux, A., Leveneur, S., Lucereau, M., Maucorps, S., Ragot, M., Syrykh, J., Vige, M., **Designing and demonstrating a master student project to explore carbon dioxide capture technology**, *Journal of Chemical Education* 93 (2016) 4, 633-638
 17. Aspiala, M., Tesfaye, F., Taskinen, P., **Thermodynamic study in the Ag–Sb–S system by the EMF method**, *Journal of Chemical Thermodynamics* 98 (2016) 361-366
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 19. Biasi, P., Mikkola, J.-P., Sterchele, S., Salmi, T., Gemo, N., Shchukarev, A., Centomo, P., Zecca, M., Canu, P., Rautio, A.-R., Mikkola, J.-P., **Revealing the role of bromide in the H₂O₂ direct synthesis with the catalyst wet pretreatment method (CWPM)**, *AICHE Journal* 63 (2016) 1, 32-42
 20. Björkvik, L., Wang, X., Hupa, L., **Dissolution of bioactive glasses in acidic solutions with the focus on lactic acid**, *International Journal of Applied Glass Science* 7 (2016) 2, 154-163
 21. Boeva, Z. A., Lindfors, T., **Few-layer graphene and polyaniline composite as ion-to-electron transducer in silicone rubber solid-contact ion-selective electrodes**, *Sensors and Actuators B: Chemical* 224 (2016) 624-631
 22. Bourajoini, H., Rautio, A.-R., Kordas, K., Mikkola, J.-P., **Calcium manganese oxide catalysts for water oxidation: Unravelling the influence of various synthesis strategies**, *Materials Research Bulletin* 79 (2016) 133-137
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 26. Brusentsev, Y., Eklund, P., **Synthesis of chiral phosphorous and phosphoric acid derivatives from the lignans matairesinol and conidendrin**, *Synlett* 27 (2016) 2557-2560

27. Bukhanko, N., Wärnå, J., Samikannu, A., Mikkola, J.-P., **Kinetic modeling of gas phase synthesis of ethyl chloride from ethanol and HCl in fixed bed**, *Chemical Engineering Science* 142 (2016) 310-317
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 41. Freites Aguilera, A., Tolvanen , P., Eränen , K., Leveneur , S. Salmi, T., **Epoxidation of oleic acid under conventional heating and microwave radiation**, *Chemical Engineering and Processing* 102 (2016) 70-87
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 43. Gemo, N., Menegazzo, F., Biasi, P., Sarkar, A., Samikannu, A., Raut, D. G., Kordas, K., Rautio, A.-R., Mohl, M., Boström, D., Shchukarev, A., Mikkola, J.-P, **TiO₂ nanoparticles vs. TiO₂ nanowires as support in hydrogen peroxide direct synthesis: the influence of N and Au doping**, *RSC Advances* 6 (2016) 105, 103311-103319
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69. Krutov, S. M., Gravitis, J. A., Ipatova, E. V., Akhmadullina, A. R., Andzs, M. M., Tupciauskas, R. R., Pranovich, A. V., Vasiliev, A. V., **Technical lignins extractive substances after steam-explosion treatments**, *Russian Foundation for Basic Research Journal (RFBR): Chemistry of plant substances*, 89 (2016) 1, 20-26 (in Russian)
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4.4 Awards granted

Rahkila, Jani

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Sundqvist, Maria

Tekniska Föreningen i Finland: The best master's thesis of technology in the Swedish language in Finland 2015

Vanamo, Ulriika,

Alfhanska priset, "Solid-state reference and ion-selective electrodes – towards portable potentiometric sensing"

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