

- Zeng, H, Lahikainen, M, Liu, L, Ahmed, Z, Wani, OM, Wang, M, Yang, H & Priimagi, A 2019, 'Light-fuelled freestyle self-oscillators', *Nature Communications*, vol. 10, no. 1, 5057. <https://doi.org/10.1038/s41467-019-13077-6>
- Kastinen, T, da Silva Filho, DA, Paunonen, L, Linares, M, Ribeiro Junior, LA, Cramariuc, O & Hukka, TI 2019, 'Electronic couplings and rates of excited state charge transfer processes at poly(thiophene-co-quinoxaline)-PC71BM interfaces: two-versus multi-state treatments', *Physical Chemistry Chemical Physics*. <https://doi.org/10.1039/C9CP04837E>
- Ali-Löytty, H, Valden, M, Hannula, M, Eilert, A, Ogasawara, H & Nilsson, A 2019, 'Chemical Dissolution of Pt(111) During Potential Cycling Under Negative pH Conditions Studied by Operando X-ray Photoelectron Spectroscopy', *Journal of Physical Chemistry C*, vol. 123, no. 41, pp. 25128-25134. <https://doi.org/10.1021/acs.jpcc.9b05201>
- Assoah, B, Veiros, LF & R. Candeias, N 2019, 'Pinacol-Derived Chlorohydrosilane in Metal-Free Reductive Amination for the Preparation of Tertiary Alkylphenolmethyl Amines', *Organic Letters*, vol. 21, no. 5, pp. 1402-1406. <https://doi.org/10.1021/acs.orglett.9b00121>
- Järvinen, H, Honkanen, M, Oja, O, Järvenpää, M & Peura, P 2019, 'Microstructure-property relationships of novel ultra-high strength press hardening steels', *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, vol. 50, no. 2, pp. 816-836. <https://doi.org/10.1007/s11661-018-4967-7>
- Levänen, E & Singh, A 2018, 'Titanium oxide based nanoparticles by laser ablation in supercritical carbon dioxide' Paper presented at The 8th International Conference on Manipulation, Manufacturing and measurement on the Nanoscale, China, 13/08/18 - 17/08/18, .
- Nikkanen, J-P, Kaleva, A, Saarimaa, V, Honkanen, M, Vuorinen, T, Heinonen, S, Väisänen, P, Markkula, A, Huttunen-Saarivirta, E & Levänen, E 2018, 'Utilization of CO<sub>2</sub> in modification of galvanized steel surface' Paper presented at The International Symposium on Inorganic and Environmental Materials 2018, Ghent, Belgium, 17/06/18 - 21/06/18, .
- Khan, M, Koivisto, J, Hukka, T, Hokka, M & Kellomäki, M 2018, 'Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial', *ACS Applied Materials & Interfaces*, vol. 10, no. 14, pp. 11950-11960. <https://doi.org/10.1021/acsami.8b01351>
- Keipi, T, Tolvanen, H & Konttinen, J 2018, 'Economic analysis of hydrogen production by methane thermal decomposition: Comparison to competing technologies', *Energy Conversion and Management*, vol. 159, pp. 264-273. <https://doi.org/10.1016/j.enconman.2017.12.063>
- Vaikuntam, SR, Stöckelhuber, KW, Subramani Bhagavatheswaran, E, Wießner, S, Scheler, U, Saalwächter, K, Formanek, P, Heinrich, G & Das, A 2018, 'Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures', *Journal of Physical Chemistry B*, vol. 122, no. 6, pp. 2010-2022. <https://doi.org/10.1021/acs.jpcc.7b11792>
- Saarimaa, V, Kaleva, A, Paunikallio, T, Nikkanen, J-P, Heinonen, S, Levänen, E, Väisänen, P & Markkula, A 2018, 'Convenient extraction method for quantification of thin zinc patina layers', *Surface and Interface Analysis*, vol. 50, no. 5, pp. 564-570. <https://doi.org/10.1002/sia.6429>
- Solismaa, S, Ismailov, A, Karhu, M, Sreenivasan, H, Lehtonen, M, Kinnunen, P, Illikainen, M & Räisänen, M-L 2018, 'Valorization of Finnish mining tailings for use in the ceramics industry', *BULLETIN OF THE GEOLOGICAL SOCIETY OF FINLAND*, vol. 90, no. 1, pp. 33-54. <https://doi.org/10.17741/bgsf/90.1.002>
- Layek, RK, Uddin, ME, Kim, NH, Tak Lau, AK & Lee, JH 2017, 'Noncovalent functionalization of reduced graphene oxide with pluronic F127 and its nanocomposites with gum arabic', *Composites Part B : Engineering*, vol. 128, pp. 155-163. <https://doi.org/10.1016/j.compositesb.2017.07.010>
- Keipi, T, Li, T, Løvås, T, Tolvanen, H & Konttinen, J 2017, 'Methane thermal decomposition in regenerative heat exchanger reactor: Experimental and modeling study', *Energy*, vol. 135, pp. 823-832. <https://doi.org/10.1016/j.energy.2017.06.176>

Mangayil, R, Rajala, S, Pammo, A, Sarlin, E, Luo, J, Santala, V, Karp, M & Tuukkanen, S 2017, 'Engineering and Characterization of Bacterial Nanocellulose Films as Low Cost and Flexible Sensor Material', *ACS Applied Materials & Interfaces*, vol. 9, no. 22, pp. 19048–19056. <https://doi.org/10.1021/acsami.7b04927>

Lindroos, M, Laukkanen, A, Cailletaud, G & Kuokkala, V-T 2017, 'On the effect of deformation twinning and microstructure to strain hardening of high manganese austenitic steel 3D microstructure aggregates at large strains', *International Journal of Solids and Structures*, vol. 125, pp. 68-76. <https://doi.org/10.1016/j.ijsolstr.2017.07.015>

Hiltunen, A, Lahtonen, K, Saari, J, Ojanperä, A, Sarlin, E, Wondraczek, H, Efimov, A, Kaunisto, K, Vivo, P, Maccato, C, Barreca, D, Fardim, P, Tkachenko, N, Valden, M & Lemmetyinen, H 2017, 'Tailored Fabrication of Transferable and Hollow Weblike Titanium Dioxide Structures', *ChemPhysChem*, vol. 18, pp. 64-71. <https://doi.org/10.1002/cphc.201600930>

Kamppuri, T, Vehviläinen, M, Backfolk, K & Heiskanen, I 2016, 'Characterization of endoglucanase rich *Trichoderma reesei* cellulase mixtures and their effect on alkaline solubility of dissolving pulp', *Cellulose*, vol. 23, no. 6, pp. 3901–3911. <https://doi.org/10.1007/s10570-016-1055-2>

Heinonen, S, Kannisto, M, Nikkanen, J-P, Huttunen-Saarivirta, E, Karp, M & Levänen, E 2016, 'Photocatalytic and antibacterial properties of ZnO films with different surface topographies on stainless steel substrate', *Thin Solid Films*, vol. 616, pp. 842-849. <https://doi.org/10.1016/j.tsf.2016.10.002>

Keipi, T, Tolvanen, KES, Tolvanen, H & Konttinen, J 2016, 'Thermo-catalytic decomposition of methane: The effect of reaction parameters on process design and the utilization possibilities of the produced carbon', *Energy Conversion and Management*, vol. 126, pp. 923-934. <https://doi.org/10.1016/j.enconman.2016.08.060>

Taddeo, R, Kolppo, K & Lepistö, R 2016, 'Sustainable nutrients recovery and recycling by optimizing the chemical addition sequence for struvite precipitation from raw swine slurries', *Journal of Environmental Management*, vol. 180, pp. 52-58. <https://doi.org/10.1016/j.jenvman.2016.05.009>

Leppänen, A & Välimäki, E 2016, 'Improving Recovery Boiler Availability through Understanding Fume Behavior', *TAPPI Journal*, vol. 15, no. 3, pp. 187-193.

Koivula, HM, Jalkanen, L, Saukkonen, E, Ovaska, S-S, Lahti, J, Christophliemk, H & Mikkonen, KS 2016, 'Machine-coated starch-based dispersion coatings prevent mineral oil migration from paperboard', *Progress in Organic Coatings*, vol. 99, pp. 173-181. <https://doi.org/10.1016/j.porgcoat.2016.05.017>

Higashino, T, Yamada, T, Yamamoto, M, Furube, A, Tkachenko, NV, Miura, T, Kobori, Y, Jono, R, Yamashita, K & Imahori, H 2016, 'Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer', *Angewandte Chemie (International Edition)*, vol. 55, no. 2, pp. 629-633. <https://doi.org/10.1002/anie.201509067>

Keipi, T, Hankalin, V, Nummelin, J & Raiko, R 2016, 'Techno-economic analysis of four concepts for thermal decomposition of methane: Reduction of CO<sub>2</sub> emissions in natural gas combustion', *Energy Conversion and Management*, vol. 110, pp. 1-12. <https://doi.org/10.1016/j.enconman.2015.11.057>

Timonen, J, Antikainen, M, Das, A, Sarlin, E & Vuorinen, J 2016, *Towards material excellence: Evaluation of Tekes' programmes on materials*. Tekes.

Köliö, A, Honkanen, M, Lahdensivu, J, Vippola, M & Pentti, M 2015, 'Corrosion products of carbonation induced corrosion in existing reinforced concrete facades', *Cement and Concrete Research*, vol. 78, pp. 200-207. <https://doi.org/10.1016/j.cemconres.2015.07.009>

Grönqvist, S, Kamppuri, T, Maloney, T, Vehviläinen, M, Liittä, T & Suurnäkki, A 2015, 'Enhanced pre-treatment of cellulose pulp prior to dissolution into NaOH/ZnO', *Cellulose*, vol. 22, no. 6, pp. 3981-3990. <https://doi.org/10.1007/s10570-015-0742-8>

Mayrhofer, E, Janka, L, Mayr, WP, Norpoth, J, Rodriguez Ripoll, M & Gröschl, M 2015, 'Cracking resistance of Cr<sub>3</sub>C<sub>2</sub>-NiCr and WC-Cr<sub>3</sub>C<sub>2</sub>-Ni thermally sprayed coatings under tensile bending stress', *Surface and Coatings Technology*, vol. 281, pp. 169-175. <https://doi.org/10.1016/j.surfcoat.2015.09.002>

Kärkkäinen, M, Kolli, T, Honkanen, M, Heikkinen, O, Huuhtanen, M, Kallinen, K, Lepistö, T, Lahtinen, J, Vippola, M & Keiski, RL 2015, 'The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part I: Activity Measurements, Elementary and Surface Analyses', *Topics in Catalysis*, vol. 58, no. 14, pp. 961-970. <https://doi.org/10.1007/s11244-015-0464-z>

Honkanen, M, Kärkkäinen, M, Heikkinen, O, Kallinen, K, Kolli, T, Huuhtanen, M, Lahtinen, J, Keiski, RL, Lepistö, T & Vippola, M 2015, 'The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part II: Characterization of Structural Changes by Transmission Electron Microscopy', *Topics in Catalysis*, vol. 58, no. 14, pp. 971-976. <https://doi.org/10.1007/s11244-015-0465-y>

Harra, J, Juuti, P, Haapanen, J, Sorvali, M, Roumeli, E, Honkanen, M, Vippola, M, Yli-Ojanperä, J & Mäkelä, JM 2015, 'Coating of Silica and Titania Aerosol Nanoparticles by Silver Vapor Condensation', *Aerosol Science and Technology*, vol. 49, no. 9, pp. 767-776. <https://doi.org/10.1080/02786826.2015.1072263>

Frankberg, EJ, George, L, Efimov, A, Honkanen, M, Pessi, J & Levänen, E 2015, 'Measuring synthesis yield in graphene oxide synthesis by modified hummers method', *Fullerenes Nanotubes and Carbon Nanostructures*, vol. 23, no. 9, pp. 755-759. <https://doi.org/10.1080/1536383X.2014.993754>

Lepcha, A, Maccato, C, Mettenböcker, A, Andreu, T, Mayrhofer, L, Walter, M, Olthof, S, Ruoko, TP, Klein, A, Moseler, M, Meerholz, K, Morante, JR, Barreca, D & Mathur, S 2015, 'Electrospun Black Titania Nanofibers: Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance', *Journal of Physical Chemistry C*, vol. 119, no. 33, pp. 18835-18842. <https://doi.org/10.1021/acs.jpcc.5b02767>

Aghaee, M, Maydannik, PS, Johansson, P, Kuusipalo, J, Creatore, M, Homola, T & Cameron, DC 2015, 'Low temperature temporal and spatial atomic layer deposition of TiO<sub>2</sub> films', *Journal of Vacuum Science & Technology A*, vol. 33, no. 4, 041512. <https://doi.org/10.1116/1.4922588>

Vehviläinen, M, Kamppuri, T, Grönqvist, S, Rissanen, M, Maloney, T, Honkanen, M & Nousiainen, P 2015, 'Dissolution of enzyme-treated cellulose using freezing thawing method and the properties of fibres regenerated from the solution', *Cellulose*, vol. 22, no. 3, pp. 1653-1674. <https://doi.org/10.1007/s10570-015-0632-0>

Virtanen, T, Penttilä, PA, Maloney, TC, Grönqvist, S, Kamppuri, T, Vehviläinen, M, Serimaa, R & Maunu, SL 2015, 'Impact of mechanical and enzymatic pretreatments on softwood pulp fiber wall structure studied with NMR spectroscopy and X-ray scattering', *Cellulose*, vol. 22, no. 3, pp. 1565-1576. <https://doi.org/10.1007/s10570-015-0619-x>

Puranen, J, Laakso, J, Honkanen, M, Heinonen, S, Kylmälahti, M, Lugowski, S, Coyle, TW, Kesler, O & Vuoristo, P 2015, 'High temperature oxidation tests for the high velocity solution precursor flame sprayed manganese-cobalt oxide spinel protective coatings on SOFC interconnector steel', *International Journal of Hydrogen Energy*, vol. 40, no. 18, pp. 6216-6227. <https://doi.org/10.1016/j.ijhydene.2015.02.129>

Diao, F, Liang, W, Tian, F, Wang, Y, Vivo, P, Efimov, A & Lemmetyinen, H 2015, 'Preferential Attachments of Organic Dyes onto {101} Facets of TiO<sub>2</sub> Nanoparticles', *Journal of Physical Chemistry C*, vol. 119, no. 16, pp. 8960-8965. <https://doi.org/10.1021/acs.jpcc.5b01369>

Carver, SM, Nelson, MC, Yu, Z & Tuovinen, OH 2015, 'Fermentative metabolism of an anaerobic, thermophilic consortium on plant polymers and commercial paper samples', *Biomass & Bioenergy*, vol. 75, pp. 11-22. <https://doi.org/10.1016/j.biombioe.2015.02.005>

Saarikoski, E, Rissanen, M & Seppälä, J 2015, 'Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming', *Carbohydrate Polymers*, vol. 119, pp. 62-70.  
<https://doi.org/10.1016/j.carbpol.2014.11.033>

Leppänen, A 2015, *Modeling Fume Particle Dynamics and Deposition with Alkali Metal Chemistry in Kraft Recovery Boilers*. Tampere University of Technology. Publication, vol. 1273, vol. 1273, Tampere University of Technology, Tampere.

Yi, H, Albrecht, M, Valkonen, A & Rissanen, K 2015, 'Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions', *New Journal of Chemistry*, vol. 39, no. 1, pp. 746-749.  
<https://doi.org/10.1039/c4nj01654h>

Tuominen, J, Näkki, J, Pajukoski, H, Nyssönen, T, Ristonen, T, Peltola, T & Vuoristo, P 2015, High performance wear and corrosion resistant coatings by novel cladding techniques. in TS Sudarshan, P Vuoristo & H Koivuluoto (eds), *Surface Modification Technologies XXVIII: Proceedings of the 28th International Conference on Surface Modification Technologies*. Valardocs, pp. 105-117, International Conference on Surface Modification Technologies, Finland, 1/01/00.

Köliö, A, Honkanen, M & Lahdensivu, J 2015, Corrosion propagation phase studies on Finnish reinforced concrete facades. in *1st International Symposium on Building Pathology: ISBP 2015*. FEUP Edicoes (Faculdade de Engenharia da Universidade do Porto Edicoes), Porto, International Symposium on Building Pathology, United Kingdom, 1/01/15.

Sarlin, E, Rosling, A, Mustakangas, M, Laihonen, P, Lindgren, M & Vuorinen, J 2015, Diffusion of acidic solution through rubber at high temperature and its effect on metal-rubber interface degradation. in *Proceedings of SAMPE Europe Conference*. SAMPE EUROPE Technical Conference, 1/01/14.

Ramamoorthy, SK, Skrifvars, M & Rissanen, M 2015, 'Effect of alkali and silane surface treatments on regenerated cellulose fibre type (Lyocell) intended for composites', *Cellulose*, vol. 22, no. 1, pp. 637-654.  
<https://doi.org/10.1007/s10570-014-0526-6>

Vapaavuori, J, Ras, RHA, Kaivola, M, Bazuin, CG & Priimägi, A 2015, 'From partial to complete optical erasure of azobenzene-polymer gratings: effect of molecular weight', *Journal of Materials Chemistry C*, vol. 3, no. 42, pp. 11011-11016. <https://doi.org/10.1039/C5TC01776A>

Sarlin, EL, Lindgren, M, Suihkonen, RJ, Siljander, SMK, Kakkonen, MMS & Vuorinen, JE 2015, 'High-temperature slurry erosion of vinylester matrix composites – The effect of test parameters', *Wear*, vol. 328-329, pp. 488-497.  
<https://doi.org/10.1016/j.wear.2015.03.021>

Beyeh, NK, Valkonen, A, Bhowmik, S, Pan, F & Rissanen, K 2015, 'N-Alkyl ammonium resorcinarene salts: multivalent halogen-bonded deep-cavity cavitands', *Organic chemistry frontiers*, vol. 2, no. 4, pp. 340-345.  
<https://doi.org/10.1039/c4qo00326h>

Koivuluoto, H, Stenroos, C, Ruohomaa, R, Bolelli, G, Lusvarghi, L & Vuoristo, P 2015, Research on icing behavior and ice adhesion testing of icephobic surfaces. in *16th International Workshop on Atmospheric Icing of Structures, IWAIS 2015, June 28-July 3, 2015, Uppsala, Sweden*. pp. 183-188, International Workshop on Atmospheric Icing of Structures, United Kingdom, 1/01/00.

Leppänen, A, Välimäki, E & Oksanen, A 2015, Simulation of ash-forming compounds in the kraft recovery boiler. in *10th European Conference on Industrial Furnaces and Boilers*. Porto, Portugal, European conference on industrial furnaces and boilers, 1/01/00.

Wacharine, I, Valkonen, A, Rzaigui, M & Smirani, W 2015, 'Synthesis, crystal structure, spectral, dielectric characteristics and conduction mechanism of two novel carboxylates of 1-benzhydrylpiperazine', *Monatshefte für Chemie*, vol. 146, no. 12, pp. 2007-2020. <https://doi.org/10.1007/s00706-015-1553-1>

Siljander, S, Lehmonen, J, Tanaka, A, Ketoja, J, Heikkilä, P, Lahti, J, Sarlin, E & Vuorinen, J 2015, The effect of physical adhesion promotion treatments on interfacial adhesion in cellulose-epoxy composite. in *Proceedings of the 20th International Conference on Composite Materials*. International Conference on Composite Materials, 1/01/00.

Grönqvist, S, Treimanis, A, Kamppuri, T, Maloney, T, Skute, M, Grinfelds, U, Vehviläinen, M & Suurnäkki, A 2015, 'The effect of the outermost fibre layers on solubility of dissolving grade pulp', *Cellulose*, vol. 22, no. 6, pp. 3955-3965. <https://doi.org/10.1007/s10570-015-0709-9>

Leppänen, A, Tran, H, Taipale, R, Välimäki, E & Oksanen, A 2014, 'Numerical modeling of fine particle and deposit formation in a recovery boiler', *Fuel*, vol. 129, pp. 45-53. <https://doi.org/10.1016/j.fuel.2014.03.046>

Tuominen, M, Teisala, H, Aromaa, M, Stepien, M, Mäkelä, JM, Saarinen, JJ, Toivakka, M & Kuusipalo, J 2014, 'Creation of superhydrophilic surfaces of paper and board', *Journal of Adhesion Science and Technology*, vol. 28, no. 8-9, pp. 864-879. <https://doi.org/10.1080/01694243.2012.697744>

Qvintus, P, Kataja, K, Heikkilä, P, Salmela, J, Lehmonen, J, Ketoja, J, Hänninen, T, Harlin, A, Härkäsalmi, T, Vuorinen, J & Vuorinen, T 2014, Design driven world of cellulose-from bulk to luxury? in *Fibre Value Chain Conference and Expo 2014: Pulp and Paper Bioenergy Bioproducts*. Appita Inc., pp. 67-74, Fibre Value Chain Conference and Expo, United Kingdom, 1/01/00.

Vishtal, A & Retulainen, E 2014, 'Improving the extensibility, wet web and dry strength of paper by addition of agar', *Nordic Pulp and Paper Research Journal*, vol. 29, no. 3, pp. 434-443.

Leppänen, A, Tran, H, Välimäki, E & Oksanen, A 2014, 'Modelling fume deposit growth in recovery boilers: effect of flue gas and deposit temperature', *Journal of Science and Technology for Forest Products and Processes*, vol. 4, no. 1, pp. 50-57.

Mylläri, V, Ruoko, TP & Järvelä, P 2014, 'The effects of UV irradiation to polyetheretherketone fibres: Characterization by different techniques', *Polymer Degradation and Stability*, vol. 109, pp. 278-284. <https://doi.org/10.1016/j.polymdegradstab.2014.08.003>

Teisala, H, Tuominen, M, Aromaa, M, Stepien, M, Mäkelä, JM, Saarinen, JJ, Toivakka, M & Kuusipalo, J 2013, 'High- and low-adhesive superhydrophobicity on the liquid flame spray-coated board and paper: structural effects on surface wetting and transition between the low- and high-adhesive states', *Colloid and Polymer Science*, vol. 291, no. 2, pp. 447-455. <https://doi.org/10.1007/s00396-012-2833-5>

Tuominen, M, Ek, M, Saloranta, P, Toivakka, M & Kuusipalo, J 2013, 'The effect of flame treatment on surface properties and heat sealability of low-density polyethylene coating', *Packaging Technology and Science*, vol. 26, no. 4, pp. 201-214. <https://doi.org/10.1002/pts.1975>

Teisala, H, Tuominen, M, Stepien, M, Haapanen, J, Mäkelä, JM, Saarinen, JJ, Toivakka, M & Kuusipalo, J 2013, 'Wettability conversion on the liquid flame spray generated superhydrophobic TiO<sub>2</sub> nanoparticle coating on paper and board by photocatalytic decomposition of spontaneously accumulated carbonaceous overlayer', *Cellulose*, vol. 20, no. 1, pp. 391-408. <https://doi.org/10.1007/s10570-012-9825-y>

Lahtinen, K, Johansson, P, Kääriäinen, T & Cameron, DC 2012, 'Adhesion of Extrusion-Coated Polymer Sealing Layers to a Fiber-Based Packaging Material with an Atomic Layer Deposited Aluminum Oxide Surface Coating', *Polymer Engineering and Science*, vol. 52, no. 9, pp. 1985-1990. <https://doi.org/10.1002/pen.23148>

Aromaa, M, Arffman, A, Suhonen, H, Haapanen, J, Keskinen, J, Honkanen, M, Nikkanen, J-P, Levänen, E, Messing, M, Deppert, K, Teisala, H, Tuominen, M, Kuusipalo, J, Stepien, M, Saarinen, J, Toivakka, M & Mäkelä, JM 2012, 'Atmospheric synthesis of superhydrophobic TiO<sub>2</sub> nanoparticle deposits in a single step using Liquid Flame Spray', *Journal of Aerosol Science*, vol. 52, pp. 57-68. <https://doi.org/10.1016/j.jaerosci.2012.04.009>

Aromaa, M, Haapanen, J, Teisala, H, Tuominen, M, Kuusipalo, J, Stepien, M, Saarinen, JJ, Toivakka, M & Mäkelä, JM 2012, Flame deposition of superhydrophobic and superhydrophilic nanoparticle coating on paperboard materials. in *Nanotechnology 2012: Advanced Materials, CNTs, Particles, Films and Composites - 2012 NSTI Nanotechnology Conference and Expo, NSTI-Nanotech 2012, Santa Clara, CA, USA, 18-21 June 2012*. Nanotechnology Conference and Expo Nanotech, Nano Science and Technology Institute NSTI, pp. 365-367.

Lahti, J & Lavonen, J 2012, Nanoscale surface processing of extrusion coated substrates and plastic films with atmospheric plasma activation and deposition. in *TAPPI PLACE Conference 2012, Helping Me Do My Job Better, Seattle, Washington, USA, 6-9 May 2012*. TAPPI PLACE Conference, TAPPI Press; Curran Associates, Inc, pp. 588-600, TAPPI European PLACE Conference, 1/01/12.

Teisala, H, Tuominen, M, Aromaa, M, Stepien, M, Mäkelä, JM, Saarinen, JJ, Toivakka, M & Kuusipalo, J 2012, 'Nanostructures Increase Water Droplet Adhesion on Hierarchically Rough Superhydrophobic Surfaces', *Langmuir*, vol. 28, no. 6, pp. 3138-3145. <https://doi.org/10.1021/la203155d>

Stepien, M, Saarinen, JJ, Teisala, H, Tuominen, M, Aromaa, M, Kuusipalo, J, Mäkelä, JM & Toivakka, M 2012, 'Surface chemical analysis of photocatalytic wettability conversion of TiO<sub>2</sub> nanoparticle coating', *Surface and Coatings Technology*, vol. 208, pp. 73-79. <https://doi.org/10.1016/j.surfcoat.2012.08.008>

Stepien, M, Saarinen, JJ, Teisala, H, Tuominen, M, Aromaa, M, Kuusipalo, J, Mäkelä, JM & Toivakka, M 2012, 'Surface chemical characterization of nanoparticle coated paperboard', *Applied Surface Science*, vol. 258, no. 7, pp. 3119-3125. <https://doi.org/10.1016/j.apsusc.2011.11.048>

Gonzalez, JA, Tarao, H & Korpinen, L 2012, The Effect of ELF electric fields on Implantable Cardioverter Defibrillators (ICD). in *The Bioelectromagnetics Society 34th Annual Meeting, June 17, 2012 - June 22, 2012, Brisbane, Australia*. The Bioelectromagnetics Society Annual Meeting, The Bioelectromagnetics Society, pp. 104-106.

Johansson, K, Christophliemk, H, Johansson, C, Jönsson, LJ & Järnström, L 2012, The effects of coating structure and water-holding capacity on the oxygen-scavenging capacity of enzymes embedded in the coating layer. in *12th TAPPI Advanced Coating Fundamentals Symposium Proceedings, September 10-12, 2012, Atlanta, USA*. TAPPI Advanced Coating Fundamentals Symposium, TAPPI, pp. 57-69.

Bollström, R, Tuominen, M, Määttänen, A, Peltonen, J & Toivakka, M 2012, 'Top layer coatibility on barrier coatings', *Progress in Organic Coatings*, vol. 73, no. 1, pp. 26-32. <https://doi.org/10.1016/j.porgcoat.2011.08.015>

Lahtinen, K, Johansson, P, Kääriäinen, T, Maydannik, P, Cameron, D & Kuusipalo, J 2012, 'Toward more controlled, nanoscale barrier layers in packaging', *Plastics Research Online*, no. 17th August, pp. 1-3. <https://doi.org/10.2417/spepro.004237>

Haapanen, J, Aromaa, M, Teisala, H, Tuominen, M, Stepien, M, Saarinen, JJ, Toivakka, M, Kuusipalo, J & Mäkelä, JM 2012, Two-component aerosol nanoparticle coating for paperboard on roll-to-roll process. in *EAC-2012 Granada, European Aerosol Conference, 2-7 Sept 2012, Granada, Spain*. European Aerosol Conference EAC, EAA, AECTA, pp. 1-1.

Teisala, H, Tuominen, M & Kuusipalo, J 2011, 'Adhesion Mechanism of Water Droplets on Hierarchically Rough Superhydrophobic Rose Petal Surface', *Journal of Nanomaterials*, vol. 2011, 818707, pp. 1-6. <https://doi.org/10.1155/2011/818707>

Lahti, J, Eiroma, K, Tenhunen, T-M, Pykönen, M, Toivakka, M & Tuominen, M 2011, Atmospheric Plasma Treatment of Plastic Packaging Film: Effects on Surface Properties and UV Inkjet Printability. in *13th TAPPI European PLACE Conference, Bregenz, Austria, 30 May - 1 June, 2011*. TAPPI European PLACE Conference, TAPPI, Norcross, GA, pp. 1-31.

Kääriäinen, TO, Maydannik, P, Cameron, DC, Lahtinen, K, Johansson, P & Kuusipalo, J 2011, 'Atomic layer deposition on polymer based flexible packaging materials: Growth characteristics and diffusion barrier properties', *Thin Solid Films*, vol. 519, no. 10, pp. 3146-3154. <https://doi.org/10.1016/j.tsf.2010.12.171>

Aromaa, M, Haapanen, J, Teisala, H, Tuominen, M, Kuusipalo, J, Stepien, M, Saarinen, JJ, Toivakka, M & Mäkelä, J 2011, Deposition of flame synthesised nanoparticles on paperboard surface. in *NOSA & FAAR 2011, Nordic Aerosol Symposium, November 9-11, 2011, Tampere, Finland*. Nordic Aerosol Symposium NOSA & FAAR, Nordic Society for Aerosol Research, Tampere, pp. 17-17.

Tuominen, M, Lahti, J & Kuusipalo, J 2011, 'Effects of flame and corona treatment on extrusion coated paper properties', *TAPPI Journal*, vol. 10, no. 10, pp. 29-36.

Mäkelä, JM, Aromaa, M, Teisala, H, Tuominen, M, Stepien, M, Saarinen, JJ, Toivakka, M & Kuusipalo, J 2011, 'Nanoparticle Deposition from Liquid Flame Spray onto Moving Roll-to-Roll Paperboard Material', *Aerosol Science and Technology*, vol. 45, no. 7, pp. 827-837. <https://doi.org/10.1080/02786826.2011.566292>

Lahti, J & Lavonen, J 2011, Nanoscale Surface Processing of Extrusion Coated Substrates and Plastic Films with Atmospheric Plasma Activation and Deposition. in M Vähä-Nissi (ed.), *Novel nanostructured polymeric materials for food packaging and beyond, International COST Workshop, Espoo, Finland, September 15-16, 2011. VTT Symposium*. International COST Workshop, vol. 270, VTT, Espoo, pp. 29-30.

Tuominen, M 2011, The name of the thesis: Atmospheric Plasma Treatment in Extrusion Coating, Topic: The Effect of Flame Treatment on the Sealability of Extrusion Coated Paper. in S Kärkkäinen (ed.), *PaPSaT, International Doctoral Programme in Pulp and Paper Science and Technology in Finland, Yearbook 2011*. Aalto University School of science and technology, Espoo, pp. 1-5.

Bollström, R, Tuominen, M, Määttänen, A, Peltonen, J & Toivakka, M 2011, Top layer coatibility on barrier coatings. in *TAPPI's PaperCon 2011, May 1-4, 2011, Covington, KY, USA. Paper 360 - Special PaperCon Edition*. TAPPI International Conference Papercon, TAPPI, Norcross, GA, pp. 1-11.

Lahtinen, K, Maydannik, P, Johansson, P, Kääriäinen, T, Cameron, DC & Kuusipalo, J 2011, 'Utilisation of continuous atomic layer deposition process for barrier enhancement of extrusion-coated paper', *Surface and Coatings Technology*, vol. 205, no. 15, pp. 3916-3922. <https://doi.org/10.1016/j.surfcoat.2011.02.009>

Johansson, P, Lahtinen, K, Kuusipalo, J, Kääriäinen, T, Maydannik, P & Cameron, D 2010, Atomic layer deposition process for barrier applications of flexible packaging. in *TAPPI 2010 PLACE Conference, April 18-21, 2010, Albuquerque NM, USA*. pp. 1-12.

Vartiainen, J, Tuominen, M & Nättinen, K 2010, 'Bio-Hybrid Nanocomposite Coatingas from Sonicated Chitosan and Nanoclay', *Journal of Applied Polymer Science*, vol. 116, no. 6, pp. 3638-3647. <https://doi.org/10.1002/app.31922>

Markert, F, Breedveld, L, Lahti, J & Vangeneugden, D 2010, Development of sustainable paper coatings using nanoscale industrial. in *i-SUP 2010, Innovation for Sustainable Production, Conference 4, Materials for Sustainable Production, Bruges, Belgium, 18-21 April, 2010*. pp. 80-84.

Honkanen, M, Eloranta, H & Saarenrinne, P 2010, 'Digital imaging measurement of dense multiphase flows in industrial processes', *Flow Measurement and Instrumentation*, vol. 21, no. 1, pp. 25-32. <https://doi.org/10.1016/j.flowmeasinst.2009.11.001>

Larkomaa, J, Niinimäki, J, Honkanen, M, Hanif, M & Saarenrinne, P 2010, 'Effect of fibre properties on flocculation and fractionation of cellulosic fibres in dry state', *Journal of Engineered Fibers and Fabrics*, vol. 5, no. 1, pp. 1-10.

Johansson, K, Christophliemk, H, Jönsson, LJ & Järnström, L 2010, Effect of Pigment Volume Concentration and Drying Aspects on the Enzyme Activity of Clay Coatings. in *11th Advanced Coating Fundamentals Symposium Proceedings, The Latest Advances in Coating Research and Development, 11-13 October 2010, Munich, Germany*. TAPPI Advanced Coating Fundamentals Symposium, TAPPI Press, USA, pp. 129-143.

Peltola, J, Kallio, S, Honkanen, M & Saarenrinne, P 2010, Image based measurement of particle phase reynolds stresses in a laboratory scale circulating fluidized bed. in *7th International Conference on Multiphase Flow ICMF2010, May 30 - June 4, 2010, Tampa, Florida*. pp. 1-9.

Lahti, J, Eiroma, K, Tenhunen, T-M, Pykönen, M & Toivakka, M 2010, Influence of Atmospheric Plasma Treatment on Surface Properties and Inkjet Printability of Plastic Packaging Film. in N Enlund & M Lovrecek (eds), *Advances in Printing and Media Technology*. pp. 197-203.

Tuominen, M 2010, The name of the thesis: Surface Treatment in Extrusion Coating, Topic: The Influence of Corona and Flame Treatment on Sealability of Extrusion Coated Paper. in S Kärkkäinen (ed.), *PaPSaT, International Doctoral Programme in Pulp and Paper Science and Technology in Finland, Yearbook 2010*. pp. 1-5.

Honkanen, M, Jung, J, Kuo, CJ, Peles, Y & Amitay, M 2010, Two-phase PIV/PTV measurement of bubbly flow across pin fins in a micro-channel. in *7th International Conference on Multiphase Flow ICMF2010, May 30 - June 4, 2010, Tampa, Florida*. pp. 1-9.