

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 Coatings from Sonicated Chitosan and Nanoclay. *Journal of Applied Polymer Science*. 116(6):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*. 21(1):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*. 5(1):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. USA: TAPPI Press. pp. 129-143. (TAPPI Advanced Coating Fundamentals Symposium).

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. Enlund N, Lovrecek M, editors. In *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. Kärkkäinen S, editor. In *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.

Teisala H, Tuominen M, Kuusipalo J. 2011. Adhesion Mechanism of Water Droplets on Hierarchically Rough Superhydrophobic Rose Petal Surface. *Journal of Nanomaterials*. 2011:1-6. <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. Norcross, GA: TAPPI. pp. 1-31. (TAPPI European PLACE Conference).

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*. 519(10):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. Tampere: Nordic Society for Aerosol Research. pp. 17-17. (Nordic Aerosol Symposium NOSA & FAAR).

Tuominen M, Lahti J, Kuusipalo J. 2011. Effects of flame and corona treatment on extrusion coated paper properties. *TAPPI Journal*. 10(10):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*. 45(7):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. Vähä-Nissi M, editor. In *Novel nanostructured polymeric materials for food packaging and beyond*, International COST Workshop, Espoo, Finland, September 15-16, 2011. VTT Symposium. Espoo: VTT. pp. 29-30. (International COST Workshop).

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. Kärkkäinen S, editor. In *PaPSaT, International Doctoral Programme in Pulp and Paper Science and Technology in Finland, Yearbook 2011*. Espoo: Aalto University School of science and technology. pp. 1-5.

Bollström R, Tuominen M, Määttä A, Peltonen J, Toivakka M. 2011. Top layer coatability on barrier coatings. In *TAPPI's PaperCon 2011, May 1-4, 2011, Covington, KY, USA. Paper 360 - Special PaperCon Edition*. Norcross, GA: TAPPI. pp. 1-11. (TAPPI International Conference Papercon).

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*. 205(15):3916-3922. <https://doi.org/10.1016/j.surfcoat.2011.02.009>

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*. 52(9):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 TiO₂ nanoparticle deposits in a single step using Liquid Flame Spray. *Journal of Aerosol Science*. 52:57-68. <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*. Nano Science and Technology Institute NSTI. pp. 365-367. (Nanotechnology Conference and Expo Nanotech).

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 Press; Curran Associates, Inc. pp. 588-600. (TAPPI PLACE Conference).

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*. 28(6):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 TiO₂ nanoparticle coating. *Surface and Coatings Technology*. 208:73-79. <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*. 258(7):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. pp. 104-106. (The Bioelectromagnetics Society Annual Meeting).

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. pp. 57-69. (TAPPI Advanced Coating Fundamentals Symposium).

Bollström R, Tuominen M, Määttä A, Peltonen J, Toivakka M. 2012. Top layer coatability on barrier coatings. *Progress in Organic Coatings*. 73(1):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*. (17th August):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. EAA, AECTA. pp. 1-1. (European Aerosol Conference EAC).

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*. 291(2):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*. 26(4):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 TiO₂ nanoparticle coating on paper and board by photocatalytic decomposition of spontaneously accumulated carbonaceous overlayer. *Cellulose*. 20(1):391-408. <https://doi.org/10.1007/s10570-012-9825-y>

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*. 28(8-9):864-879. <https://doi.org/10.1080/01694243.2012.697744>

Quintus 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.

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*. 29(3):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*. 4(1):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*. 109:278-284. <https://doi.org/10.1016/j.polymdegradstab.2014.08.003>

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

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. Porto: FEUP Edicoes (Faculdade de Engenharia da Universidade do Porto Edicoes).

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.

Ramamoorthy SK, Skrifvars M, Rissanen M. 2015. Effect of alkali and silane surface treatments on regenerated cellulose fibre type (Lyocell) intended for composites. *Cellulose*. 22(1):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*. 3(42):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*. 328-329:488-497. <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*. 2(4):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.

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.

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*. 146(12):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.

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*. 22(6):3955-3965. <https://doi.org/10.1007/s10570-015-0709-9>

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. Sudarshan TS, Vuoristo P, Koivuluoto H, editors. In *Surface Modification Technologies XXVIII: Proceedings of the 28th International Conference on Surface Modification Technologies*. Valardocs. pp. 105-117.

Yi H, Albrecht M, Valkonen A, Rissanen K. 2015. Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as π -acceptors for anions. *New Journal of Chemistry*. 39(1):746-749. <https://doi.org/10.1039/c4nj01654h>

Leppänen A 2015. Modeling Fume Particle Dynamics and Deposition with Alkali Metal Chemistry in Kraft Recovery Boilers. Tampere: Tampere University of Technology. 63 p. (Tampere University of Technology. Publication).

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

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*. 75:11-22. <https://doi.org/10.1016/j.biombioe.2015.02.005>

Diao F, Liang W, Tian F, Wang Y, Vivo P, Efimov A, Lemmetyinen H. 2015. Preferential Attachments of Organic Dyes onto {101} Facets of TiO₂ Nanoparticles. *Journal of Physical Chemistry C*. 119(16):8960-8965. <https://doi.org/10.1021/acs.jpcc.5b01369>

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*. 40(18):6216-6227. <https://doi.org/10.1016/j.ijhydene.2015.02.129>

Vehviläinen M, Kamppuri T, Gronqvist 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*. 22(3):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*. 22(3):1565-1576. <https://doi.org/10.1007/s10570-015-0619-x>

Aghaee M, Maydannik PS, Johansson P, Kuusipalo J, Creatore M, Homola T, Cameron DC. 2015. Low temperature temporal and spatial atomic layer deposition of TiO₂ films. *Journal of Vacuum Science & Technology A*. 33(4). <https://doi.org/10.1116/1.4922588>

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*. 119(33):18835-18842. <https://doi.org/10.1021/acs.jpcc.5b02767>

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*. 49(9):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*. 23(9):755-759. <https://doi.org/10.1080/1536383X.2014.993754>

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*. 58(14):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*. 58(14):971-976. <https://doi.org/10.1007/s11244-015-0465-y>

Mayrhofer E, Janka L, Mayr WP, Norpoth J, Rodriguez Ripoll M, Gröschl M. 2015. Cracking resistance of Cr₃C₂-NiCr and WC-Cr₃C₂-Ni thermally sprayed coatings under tensile bending stress. *Surface and Coatings Technology*. 281:169-175. <https://doi.org/10.1016/j.surfcoat.2015.09.002>

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*. 78:200-207. <https://doi.org/10.1016/j.cemconres.2015.07.009>

Grönqvist S, Kamppuri T, Maloney T, Vehviläinen M, Liitiä T, Suurnäkki A. 2015. Enhanced pre-treatment of cellulose pulp prior to dissolution into NaOH/ZnO. *Cellulose*. 22(6):3981-3990. <https://doi.org/10.1007/s10570-015-0742-8>

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*. 99:173-181. <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)*. 55(2):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 CO₂ emissions in natural gas combustion. *Energy Conversion and Management*. 110:1-12. <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*. 61 p.

Leppänen A, Välimäki E. 2016. Improving Recovery Boiler Availability through Understanding Fume Behavior. *TAPPI Journal*. 15(3):187-193.

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*. 180:52-58. <https://doi.org/10.1016/j.jenvman.2016.05.009>

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*. 126:923-934. <https://doi.org/10.1016/j.enconman.2016.08.060>

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*. 616:842-849. <https://doi.org/10.1016/j.tsf.2016.10.002>

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*. 23(6):3901-3911. <https://doi.org/10.1007/s10570-016-1055-2>

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*. 9(22):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*. 125:68-76. <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*. 18:64-71. <https://doi.org/10.1002/cphc.201600930>

- Keipi T, Li T, Løvås T, Tolvanen H, Konttinen J. 2017. Methane thermal decomposition in regenerative heat exchanger reactor: Experimental and modeling study. *Energy*. 135:823-832. <https://doi.org/10.1016/j.energy.2017.06.176>
- 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*. 128:155-163. <https://doi.org/10.1016/j.compositesb.2017.07.010>
- 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*. 50(5):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*. 90(1):33-54. <https://doi.org/10.17741/bgsf/90.1.002>
- 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*. 122(6):2010-2022. <https://doi.org/10.1021/acs.jpcc.7b11792>
- He X, Benniston AC, Lemmetyinen H, Tkachenko NV. 2018. Charge Shift/Recombination and Triplet Formation in a Closely-Spaced Molecular Dyad based on a Borondipyrromethene (Bodipy) and an Expanded Acridinium Cation. *ChemPhotoChem*. 2(3):277-282. <https://doi.org/10.1002/cptc.201700184>
- Keipi T, Tolvanen H, Konttinen J. 2018. Economic analysis of hydrogen production by methane thermal decomposition: Comparison to competing technologies. *Energy Conversion and Management*. 159:264-273. <https://doi.org/10.1016/j.enconman.2017.12.063>
- 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*. 10(14):11950-11960. <https://doi.org/10.1021/acsami.8b01351>
- 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 CO₂ in modification of galvanized steel surface. Paper presented at The International Symposium on Inorganic and Environmental Materials 2018, Ghent, Belgium.
- 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.
- 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*. 50(2):816-836. <https://doi.org/10.1007/s11661-018-4967-7>
- 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*. 21(5):1402-1406. <https://doi.org/10.1021/acs.orglett.9b00121>
- Eregowda T 2019. Anaerobic treatment and resource recovery from methanol rich waste gases and wastewaters. Tampere University. 211 p. (Tampere University Dissertations).
- Mahtabani A, Rytöluoto I, He X, Saarimäki E, Lahti K, Paajanen M, Anyszka R, Dierkes W, Blume A. 2019. Solution Modified Fumed Silica and Its Effect on Charge Trapping Behavior of PP/POE/Silica Nanodielectrics. In Proceedings of the 26th Nordic Insulation Symposium . NTNU, Norway: Nordic Insulation Symposium. pp. 129-133. (Proceedings of the

Nordic Insulation Symposium). <https://doi.org/10.5324/nordis.v0i26.3292>

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*. 123(41):25128-25134. <https://doi.org/10.1021/acs.jpcc.9b05201>

Leduc J, Gönüllü Y, Ruoko T-P, Fischer T, Mayrhofer L, Tkachenko NV, Dong C-L, Held A, Moseler M, Mathur S. 2019. Electronically Coupled Uranium and Iron Oxide Heterojunctions as Efficient Water Oxidation Catalysts. *Advanced Functional Materials*. <https://doi.org/10.1002/adfm.201905005>

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*. 21(46):25606-25625. <https://doi.org/10.1039/C9CP04837E>

Zeng H, Lahikainen M, Liu L, Ahmed Z, Wani OM, Wang M, Yang H, Priimagi A. 2019. Light-fuelled freestyle self-oscillators. *Nature Communications*. 10(1). <https://doi.org/10.1038/s41467-019-13077-6>

Sriplai N, Mangayil R, Pammo A, Santala V, Tuukkanen S, Pinitsoontorn S. 2019. Enhancing piezoelectric properties of bacterial cellulose films by incorporation of MnFe₂O₄ nanoparticles. *Carbohydrate Polymers*. 231. <https://doi.org/10.1016/j.carbpol.2019.115730>