

Temerov, Filipp ; Pham, Khai ; Juuti, Paxton ; Mäkelä, Jyrki M. ; Grachova, Elena V. ; Kumar, Santosh ; Eslava, Salvador ; Saarinen, Jarkko J. / **Silver-Decorated TiO₂ Inverse Opal Structure for Visible Light-Induced Photocatalytic Degradation of Organic Pollutants and Hydrogen Evolution**. In: ACS Applied Materials & Interfaces. 2020 ; Vol. 12, No. 37. pp. 41200-41210.

Sriplai, Nipaporn ; Mangayil, Rahul ; Pammo, Arno ; Santala, Ville ; Tuukkanen, Sampo ; Pinitsoontorn, Supree. / **Enhancing piezoelectric properties of bacterial cellulose films by incorporation of MnFe₂O₄ nanoparticles**. In: Carbohydrate Polymers. 2019 ; Vol. 231.

Zeng, Hao ; Lahikainen, Markus ; Liu, Li ; Ahmed, Zafar ; Wani, Owies M. ; Wang, Meng ; Yang, Hong ; Priimagi, Arri. / **Light-fuelled freestyle self-oscillators**. In: Nature Communications. 2019 ; Vol. 10, No. 1.

Kastinen, Tuuva ; da Silva Filho, Demetrio Antonio ; Paunonen, Lassi ; Linares, Mathieu ; Ribeiro Junior, Luiz Antonio ; Cramariuc, Oana ; Hukka, Terttu I. / **Electronic couplings and rates of excited state charge transfer processes at poly(thiophene-co-quinoxaline)-PC₇₁BM interfaces: two- versus multi-state treatments**. In: Physical Chemistry Chemical Physics. 2019 ; Vol. 21, No. 46. pp. 25606-25625.

Leduc, Jennifer ; Gönüllü, Yakup ; Ruoko, Tero-Petri ; Fischer, Thomas ; Mayrhofer, Leonhard ; Tkachenko, Nikolai V. ; Dong, Chung-Li ; Held, Alexander ; Moseler, Michael ; Mathur, Sanjay. / **Electronically Coupled Uranium and Iron Oxide Heterojunctions as Efficient Water Oxidation Catalysts**. In: Advanced Functional Materials. 2019.

Ali-Löytty, Harri ; Valden, Mika ; Hannula, Markku ; Eilert, André ; Ogasawara, Hirohito ; Nilsson, Anders. / **Chemical Dissolution of Pt(111) During Potential Cycling Under Negative pH Conditions Studied by Operando X-ray Photoelectron Spectroscopy**. In: Journal of Physical Chemistry C. 2019 ; Vol. 123, No. 41. pp. 25128-25134.

Mahtabani, Amirhossein ; Rytöluoto, Ilkka ; He, Xiaozhen ; Saarimäki, Eetta ; Lahti, Kari ; Paajanen, Mika ; Anyszka, Rafal ; Dierkes, Wilma ; Blume, Anke. / **Solution Modified Fumed Silica and Its Effect on Charge Trapping Behavior of PP/POE/Silica Nanodielectrics**. Proceedings of the 26th Nordic Insulation Symposium . NTNU, Norway : Nordic Insulation Symposium, 2019. pp. 129-133 (Proceedings of the Nordic Insulation Symposium).

Eregowda, Tejaswini. / **Anaerobic treatment and resource recovery from methanol rich waste gases and wastewaters**. Tampere University, 2019. 211 p. (Tampere University Dissertations).

Assoah, Benedicta ; Veiros, Luis F. ; R. Candeias, Nuno. / **Pinacol-Derived Chlorohydrosilane in Metal-Free Reductive Amination for the Preparation of Tertiary Alkylphenolmethyl Amines**. In: Organic Letters. 2019 ; Vol. 21, No. 5. pp. 1402-1406.

Järvinen, Henri ; Honkanen, Mari ; Oja, Olli ; Järvenpää, Martti ; Peura, Pasi. / **Microstructure-property relationships of novel ultra-high strength press hardening steels**. In: Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science. 2019 ; Vol. 50, No. 2. pp. 816-836.

Levänen, Erkki ; Singh, Amandeep. / **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.

Nikkanen, Juha-Pekka ; Kaleva, Aaretti ; Saarimaa, Ville ; Honkanen, Mari ; Vuorinen, Tommi ; Heinonen, Saara ; Väisänen, Pasi ; Markkula, Antti ; Huttunen-Saarivirta, Elina ; Levänen, Erkki. / **Utilization of CO₂ in modification of galvanized steel surface**. Paper presented at The International Symposium on Inorganic and Environmental Materials 2018, Ghent, Belgium.

Khan, Musammir ; Koivisto, Janne ; Hukka, Terttu ; Hokka, Mikko ; Kellomäki, Minna. / **Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial**. In: ACS Applied Materials & Interfaces. 2018 ; Vol. 10, No. 14. pp. 11950-11960.

Keipi, Tiina ; Tolvanen, Henrik ; Konttinen, Jukka. / **Economic analysis of hydrogen production by methane thermal decomposition : Comparison to competing technologies**. In: Energy Conversion and Management. 2018 ; Vol. 159. pp. 264-273.

He, Xiaoyan ; Benniston, Andrew C. ; Lemmetyinen, Helge ; Tkachenko, Nikolai V. / **Charge Shift/Recombination and Triplet Formation in a Closely-Spaced Molecular Dyad based on a Borondipyrromethene (Bodipy) and an Expanded Acridinium Cation**. In: ChemPhotoChem. 2018 ; Vol. 2, No. 3. pp. 277-282.

Vaikuntam, Sankar Raman ; Stöckelhuber, Klaus Werner ; Subramani Bhagavatheswaran, Eshwaran ; Wießner, Sven ; Scheler, Ulrich ; Saalwächter, Kay ; Formanek, Petr ; Heinrich, Gert ; Das, Amit. / **Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures**. In: Journal of Physical Chemistry B. 2018 ; Vol. 122, No. 6. pp. 2010-2022.

Saarimaa, Ville ; Kaleva, Aaretti ; Paunikallio, Teemu ; Nikkanen, Juha-Pekka ; Heinonen, Saara ; Levänen, Erkki ; Väisänen, Pasi ; Markkula, Antti. / **Convenient extraction method for quantification of thin zinc patina layers**. In: Surface and Interface Analysis. 2018 ; Vol. 50, No. 5. pp. 564-570.

Solismaa, Soili ; Ismailov, Arnold ; Karhu, Marjaana ; Sreenivasan, Harisankar ; Lehtonen, Marja ; Kinnunen, Päivö ; Illikainen, Mirja ; Räisänen, Marja-Liisa. / **Valorization of Finnish mining tailings for use in the ceramics industry**. In: BULLETIN OF THE GEOLOGICAL SOCIETY OF FINLAND. 2018 ; Vol. 90, No. 1. pp. 33-54.

Layek, Rama K. ; Uddin, Md Elias ; Kim, Nam Hoon ; Tak Lau, Alan Kin ; Lee, Joong Hee. / **Noncovalent functionalization of reduced graphene oxide with pluronic F127 and its nanocomposites with gum arabic**. In: Composites Part B : Engineering. 2017 ; Vol. 128. pp. 155-163.

Keipi, Tiina ; Li, Tian ; Løvås, Terese ; Tolvanen, Henrik ; Konttinen, Jukka. / **Methane thermal decomposition in regenerative heat exchanger reactor: Experimental and modeling study**. In: Energy. 2017 ; Vol. 135. pp. 823-832.

Mangayil, Rahul ; Rajala, Satu ; Pammo, Arno ; Sarlin, Essi ; Luo, Jin ; Santala, Ville ; Karp, Matti ; Tuukkanen, Sampo. / **Engineering and Characterization of Bacterial Nanocellulose Films as Low Cost and Flexible Sensor Material**. In: ACS Applied Materials & Interfaces. 2017 ; Vol. 9, No. 22. pp. 19048-19056.

Lindroos, Matti ; Laukkanen, Anssi ; Cailletaud, Georges ; Kuokkala, Veli-Tapani. / **On the effect of deformation twinning and microstructure to strain hardening of high manganese austenitic steel 3D microstructure aggregates at large strains**. In: International Journal of Solids and Structures. 2017 ; Vol. 125. pp. 68-76.

Hiltunen, Arto ; Lahtonen, Kimmo ; Saari, Jesse ; Ojanperä, Anniina ; Sarlin, Essi ; Wondraczek, Holger ; Efimov, Alexander ; Kaunisto, Kimmo ; Vivo, Paola ; Maccato, Chiara ; Barreca, Davide ; Fardim, Pedro ; Tkachenko, Nikolai ; Valden, Mika ; Lemmetyinen, Helge. / **Tailored Fabrication of Transferable and Hollow Weblike Titanium Dioxide Structures**. In: ChemPhysChem. 2017 ; Vol. 18. pp. 64-71.

Kamppuri, Taina ; Vehviläinen, Marianna ; Backfolk, Kaj ; Heiskanen, Isto. / **Characterization of endoglucanase rich Trichoderma reesei cellulase mixtures and their effect on alkaline solubility of dissolving pulp**. In: Cellulose. 2016 ; Vol. 23, No. 6. pp. 3901-3911.

Heinonen, Saara ; Kannisto, Matti ; Nikkanen, Juha-Pekka ; Huttunen-Saarivirta, Elina ; Karp, Matti ; Levänen, Erkki. / **Photocatalytic and antibacterial properties of ZnO films with different surface topographies on stainless steel substrate**. In: Thin Solid Films. 2016 ; Vol. 616. pp. 842-849.

Keipi, Tiina ; Tolvanen, Katariina E.S. ; Tolvanen, Henrik ; Konttinen, Jukka. / **Thermo-catalytic decomposition of methane : The effect of reaction parameters on process design and the utilization possibilities of the produced carbon**. In: Energy Conversion and Management. 2016 ; Vol. 126. pp. 923-934.

Taddeo, Raffaele ; Kolppo, Kari ; Lepistö, Raghida. / **Sustainable nutrients recovery and recycling by optimizing the chemical addition sequence for struvite precipitation from raw swine slurries**. In: Journal of Environmental Management. 2016 ; Vol. 180. pp. 52-58.

Leppänen, Aino ; Välimäki, Erkki. / **Improving Recovery Boiler Availability through Understanding Fume Behavior**. In: TAPPI Journal. 2016 ; Vol. 15, No. 3. pp. 187-193.

Koivula, Hanna M. ; Jalkanen, Laura ; Saukkonen, Esa ; Ovaska, Sami-Seppo ; Lahti, Johanna ; Christophliemk, Hanna ; Mikkonen, Kirsi S. / **Machine-coated starch-based dispersion coatings prevent mineral oil migration from paperboard**. In: Progress in Organic Coatings. 2016 ; Vol. 99. pp. 173-181.

Higashino, Tomohiro ; Yamada, Tomoki ; Yamamoto, Masanori ; Furube, Akihiro ; Tkachenko, Nikolai V. ; Miura, Taku ; Kobori, Yasuhiro ; Jono, Ryota ; Yamashita, Koichi ; Imahori, Hiroshi. / **Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer**. In: Angewandte Chemie (International Edition). 2016 ; Vol. 55, No. 2. pp. 629-633.

Keipi, Tiina ; Hankalin, Ville ; Nummelin, Jaakko ; Raiko, Risto. / **Techno-economic analysis of four concepts for thermal decomposition of methane: Reduction of CO₂ emissions in natural gas combustion**. In: Energy Conversion and Management. 2016 ; Vol. 110. pp. 1-12.

Timonen, Juhani ; Antikainen, Markku ; Das, Amit ; Sarlin, Essi ; Vuorinen, Jyrki. / **Towards material excellence : Evaluation of Tekes' programmes on materials**. Tekes, 2016. 61 p.

Köliö, Arto ; Honkanen, Mari ; Lahdensivu, Jukka ; Vippola, Minnamari ; Pentti, Matti. / **Corrosion products of carbonation induced corrosion in existing reinforced concrete facades**. In: Cement and Concrete Research. 2015 ; Vol. 78. pp. 200-207.

Grönqvist, S. ; Kamppuri, T. ; Maloney, T. ; Vehviläinen, M. ; Liitiä, T. ; Suurnäkki, A. / **Enhanced pre-treatment of cellulose pulp prior to dissolution into NaOH/ZnO**. In: Cellulose. 2015 ; Vol. 22, No. 6. pp. 3981-3990.

Mayrhofer, Erwin ; Janka, Leo ; Mayr, Wolfgang Peter ; Norpoth, Jonas ; Rodriguez Ripoll, Manel ; Gröschl, Martin. / **Cracking resistance of Cr₃C₂-NiCr and WC-Cr₃C₂-Ni thermally sprayed coatings under tensile bending stress**. In: Surface and Coatings Technology. 2015 ; Vol. 281. pp. 169-175.

Kärkkäinen, Marja ; Kolli, Tanja ; Honkanen, Mari ; Heikkinen, Olli ; Huuhtanen, Mika ; Kallinen, Kauko ; Lepistö, Toivo ; Lahtinen, Jouko ; Vippola, Minnamari ; Keiski, Riitta L. / **The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part I : Activity Measurements, Elementary and Surface Analyses**. In: Topics in Catalysis. 2015 ; Vol. 58, No. 14. pp. 961-970.

Honkanen, Mari ; Kärkkäinen, Marja ; Heikkinen, Olli ; Kallinen, Kauko ; Kolli, Tanja ; Huuhtanen, Mika ; Lahtinen, Jouko ; Keiski, Riitta L. ; Lepistö, Toivo ; Vippola, Minnamari. / **The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part II : Characterization of Structural Changes by Transmission Electron Microscopy**. In: Topics in Catalysis. 2015 ; Vol. 58, No. 14. pp. 971-976.

Harra, Juha ; Juuti, Paxton ; Haapanen, Janne ; Sorvali, Miika ; Roumeli, Eleftheria ; Honkanen, Mari ; Vippola, Minnamari ; Yi-Ojanperä, Jaakko ; Mäkelä, Jyrki M. / **Coating of Silica and Titania Aerosol Nanoparticles by Silver Vapor Condensation**. In: Aerosol Science and Technology. 2015 ; Vol. 49, No. 9. pp. 767-776.

Frankberg, Erka J. ; George, Lijo ; Efimov, Alexander ; Honkanen, Mari ; Pessi, Jenni ; Levänen, Erkki. / **Measuring synthesis yield in graphene oxide synthesis by modified hummers method**. In: Fullerenes Nanotubes and Carbon Nanostructures. 2015 ; Vol. 23, No. 9. pp. 755-759.

Lepcha, A. ; Maccato, C. ; Mettenböcker, A. ; Andreu, T. ; Mayrhofer, L. ; Walter, M. ; Olthof, S. ; Ruoko, T. P. ; Klein, A. ; Moseler, M. ; Meerholz, K. ; Morante, J. R. ; Barreca, D. ; Mathur, S. / **Electrospun Black Titania Nanofibers : Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance**. In: Journal of Physical Chemistry C. 2015 ; Vol. 119, No. 33. pp. 18835-18842.

Aghaee, Morteza ; Maydannik, Philipp S. ; Johansson, Petri ; Kuusipalo, Jurkka ; Creatore, Mariadriana ; Homola, Tomas ; Cameron, David C. / **Low temperature temporal and spatial atomic layer deposition of TiO₂ films**. In: Journal of Vacuum Science & Technology A. 2015 ; Vol. 33, No. 4.

Vehviläinen, Marianna ; Kamppuri, Taina ; Gronqvist, Stina ; Rissanen, Marja ; Maloney, Thaddeus ; Honkanen, Mari ; Nousiainen, Pertti. / **Dissolution of enzyme-treated cellulose using freezing thawing method and the properties of fibres regenerated from the solution**. In: Cellulose. 2015 ; Vol. 22, No. 3. pp. 1653-1674.

Virtanen, Tommi ; Penttilä, Paavo A. ; Maloney, Thaddeus C. ; Grönqvist, Stina ; Kamppuri, Taina ; Vehviläinen, Marianna ; Serimaa, Ritva ; Maunu, Sirkka Liisa. / **Impact of mechanical and enzymatic pretreatments on softwood pulp fiber wall structure studied with NMR spectroscopy and X-ray scattering**. In: Cellulose. 2015 ; Vol. 22, No. 3. pp. 1565-1576.

Puranen, Jouni ; Laakso, Jarmo ; Honkanen, Mari ; Heinonen, Saara ; Kylmälahti, Mikko ; Lugowski, Stan ; Coyle, Thomas W. ; Kesler, Olivera ; Vuoristo, Petri. / **High temperature oxidation tests for the high velocity solution precursor flame sprayed manganese-cobalt oxide spinel protective coatings on SOFC interconnector steel**. In: International Journal of Hydrogen Energy. 2015 ; Vol. 40, No. 18. pp. 6216-6227.

Diao, Feiyu ; Liang, Wenshuang ; Tian, Fenghui ; Wang, Yiqian ; Vivo, Paola ; Efimov, Alexander ; Lemmetyinen, Helge. / **Preferential Attachments of Organic Dyes onto {101} Facets of TiO₂ Nanoparticles**. In: Journal of Physical Chemistry C. 2015 ; Vol. 119, No. 16. pp. 8960-8965.

Carver, Sarah M. ; Nelson, Michael C. ; Yu, Zhongtang ; Tuovinen, Olli H. / **Fermentative metabolism of an anaerobic, thermophilic consortium on plant polymers and commercial paper samples**. In: Biomass & Bioenergy. 2015 ; Vol. 75. pp. 11-22.

Saarikoski, Eve ; Rissanen, Marja ; Seppälä, Jukka. / **Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming**. In: Carbohydrate Polymers. 2015 ; Vol. 119. pp. 62-70.

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

Yi, H. ; Albrecht, M. ; Valkonen, A. ; Rissanen, K. / **Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as π -acceptors for anions**. In: New Journal of Chemistry. 2015 ; Vol. 39, No. 1. pp. 746-749.

Tuominen, J. ; Näkki, J. ; Pajukoski, H. ; Nyyssönen, T. ; Ristonen, T. ; Peltola, T. ; Vuoristo, P. / **High performance wear and corrosion resistant coatings by novel cladding techniques**. Surface Modification Technologies XXVIII: Proceedings of the 28th International Conference on Surface Modification Technologies. editor / T.S. Sudarshan ; P. Vuoristo ; H. Koivuluoto. Valardocs, 2015. pp. 105-117

Köliö, Arto ; Honkanen, Mari ; Lahdensivu, Jukka. / **Corrosion propagation phase studies on Finnish reinforced concrete facades**. 1st International Symposium on Building Pathology: ISBP 2015. Porto : FEUP Edicoes (Faculdade de Engenharia da Universidade do Porto Edicoes), 2015.

Sarlin, Essi ; Rosling, Ari ; Mustakangas, Mirva ; Laihonon, Paavo ; Lindgren, Mari ; Vuorinen, Jyrki. / **Diffusion of acidic solution through rubber at high temperature and its effect on metal-rubber interface degradation**. Proceedings of SAMPE Europe Conference. 2015.

Ramamoorthy, Sunil Kumar ; Skrifvars, Mikael ; Rissanen, Marja. / **Effect of alkali and silane surface treatments on regenerated cellulose fibre type (Lyocell) intended for composites**. In: Cellulose. 2015 ; Vol. 22, No. 1. pp. 637-654.

Vapaavuori, Jaana ; Ras, Robin H. A. ; Kaivola, Matti ; Bazuin, C. Geraldine ; Priimägi, Arri. / **From partial to complete optical erasure of azobenzene-polymer gratings: effect of molecular weight**. In: Journal of Materials Chemistry C. 2015 ; Vol. 3, No. 42. pp. 11011-11016.

Sarlin, Essi Linnea ; Lindgren, Mari ; Suihkonen, Reija Johanna ; Siljander, Sanna Maria Kaarina ; Kakkonen, Markus Matti Samuel ; Vuorinen, Jyrki Erik. / **High-temperature slurry erosion of vinylester matrix composites – The effect of test parameters**. In: *Wear*. 2015 ; Vol. 328-329. pp. 488-497.

Beyeh, N. Kodiah ; Valkonen, Arto ; Bhowmik, Sandip ; Pan, Fangfang ; Rissanen, K. / **N-Alkyl ammonium resorcinarene salts ; multivalent halogen-bonded deep-cavity cavitands**. In: *Organic chemistry frontiers*. 2015 ; Vol. 2, No. 4. pp. 340-345.

Koivuluoto, Heli ; Stenroos, Christian ; Ruohomaa, Riku ; Bolelli, Giovanni ; Lusvarghi, Luca ; Vuoristo, Petri. / **Research on icing behavior and ice adhesion testing of icephobic surfaces**. 16th International Workshop on Atmospheric Icing of Structures, IWAIS 2015, June 28-July 3, 2015, Uppsala, Sweden. 2015. pp. 183-188

Leppänen, A. ; Välimäki, E. ; Oksanen, A. / **Simulation of ash-forming compounds in the kraft recovery boiler**. 10th European Conference on Industrial Furnaces and Boilers. Porto, Portugal, 2015.

Wacharine, Intissar ; Valkonen, Arto ; Rzaigui, Mohamed ; Smirani, Wajda. / **Synthesis, crystal structure, spectral, dielectric characteristics and conduction mechanism of two novel carboxylates of 1-benzhydrylpiperazine**. In: *Monatshefte für Chemie*. 2015 ; Vol. 146, No. 12. pp. 2007-2020.

Siljander, Sanna ; Lehmonen, Jani ; Tanaka, Atsushi ; Ketoja, Jukka ; Heikkilä, Pirjo ; Lahti, Johanna ; Sarlin, Essi ; Vuorinen, Jyrki. / **The effect of physical adhesion promotion treatments on interfacial adhesion in cellulose-epoxy composite**. Proceedings of the 20th International Conference on Composite Materials. 2015.

Grönqvist, S. ; Treimanis, A. ; Kamppuri, T. ; Maloney, T. ; Skute, M. ; Grinfelds, U. ; Vehviläinen, M. ; Suurnäkki, A. / **The effect of the outermost fibre layers on solubility of dissolving grade pulp**. In: *Cellulose*. 2015 ; Vol. 22, No. 6. pp. 3955-3965.

Leppänen, A. ; Tran, Honghi ; Taipale, Raili ; Välimäki, Erkki ; Oksanen, A. / **Numerical modeling of fine particle and deposit formation in a recovery boiler**. In: *Fuel*. 2014 ; Vol. 129. pp. 45-53.

Tuominen, Mikko ; Teisala, Hannu ; Aromaa, Mikko ; Stepien, Milena ; Mäkelä, Jyrki M. ; Saarinen, Jarkko J. ; Toivakka, Martti ; Kuusipalo, Jurkka. / **Creation of superhydrophilic surfaces of paper and board**. In: *Journal of Adhesion Science and Technology*. 2014 ; Vol. 28, No. 8-9. pp. 864-879.

Qvintus, Pia ; Kataja, Kirsi ; Heikkilä, Pirjo ; Salmela, Juha ; Lehmonen, Jani ; Ketoja, Jukka ; Hänninen, Tuomas ; Harlin, Ali ; Härkäsalmi, Tiina ; Vuorinen, Jyrki ; Vuorinen, Tapani. / **Design driven world of cellulose-from bulk to luxury?**. Fibre Value Chain Conference and Expo 2014: Pulp and Paper Bioenergy Bioproducts. Appita Inc., 2014. pp. 67-74

Vishtal, Alexey ; Retulainen, Elias. / **Improving the extensibility, wet web and dry strength of paper by addition of agar**. In: *Nordic Pulp and Paper Research Journal*. 2014 ; Vol. 29, No. 3. pp. 434-443.

Leppänen, Aino ; Tran, Honghi ; Välimäki, Erkki ; Oksanen, Antti. / **Modelling fume deposit growth in recovery boilers: effect of flue gas and deposit temperature**. In: *Journal of Science and Technology for Forest Products and Processes*. 2014 ; Vol. 4, No. 1. pp. 50-57.

Mylläri, Ville ; Ruoko, Tero Petri ; Järvelä, Pentti. / **The effects of UV irradiation to polyetheretherketone fibres : Characterization by different techniques**. In: *Polymer Degradation and Stability*. 2014 ; Vol. 109. pp. 278-284.

Teisala, Hannu ; Tuominen, Mikko ; Aromaa, Mikko ; Stepien, Milena ; Mäkelä, Jyrki M. ; Saarinen, Jarkko J. ; Toivakka, Martti ; Kuusipalo, Jurkka. / **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**. In: *Colloid and Polymer Science*. 2013 ; Vol. 291, No. 2. pp. 447-455.

Tuominen, Mikko ; Ek, Mikael ; Saloranta, Pauliina ; Toivakka, Martti ; Kuusipalo, Jurkka. / **The effect of flame treatment on surface properties and heat sealability of low-density polyethylene coating**. In: Packaging Technology and Science. 2013 ; Vol. 26, No. 4. pp. 201-214.

Teisala, Hannu ; Tuominen, Mikko ; Stepien, Milena ; Haapanen, Janne ; Mäkelä, Jyrki M. ; Saarinen, Jarkko J. ; Toivakka, Matti ; Kuusipalo, Jurkka. / **Wettability conversion on the liquid flame spray generated superhydrophobic TiO₂ nanoparticle coating on paper and board by photocatalytic decomposition of spontaneously accumulated carbonaceous overlayer**. In: Cellulose. 2013 ; Vol. 20, No. 1. pp. 391-408.

Lahtinen, Kimmo ; Johansson, Petri ; Kääriäinen, Tommi ; Cameron, David C. / **Adhesion of Extrusion-Coated Polymer Sealing Layers to a Fiber-Based Packaging Material with an Atomic Layer Deposited Aluminum Oxide Surface Coating**. In: Polymer Engineering and Science. 2012 ; Vol. 52, No. 9. pp. 1985-1990.

Aromaa, Mikko ; Arffman, Anssi ; Suhonen, Heikki ; Haapanen, Janne ; Keskinen, Jorma ; Honkanen, Mari ; Nikkanen, Juha-Pekka ; Levänen, Erkki ; Messing, Maria ; Deppert, Knut ; Teisala, Hannu ; Tuominen, Mikko ; Kuusipalo, Jurkka ; Stepien, Milena ; Saarinen, Jarkko ; Toivakka, Matti ; Mäkelä, Jyrki M. / **Atmospheric synthesis of superhydrophobic TiO₂ nanoparticle deposits in a single step using Liquid Flame Spray**. In: Journal of Aerosol Science. 2012 ; Vol. 52. pp. 57-68.

Aromaa, Mikko ; Haapanen, Janne ; Teisala, Hannu ; Tuominen, Mikko ; Kuusipalo, Jurkka ; Stepien, M. ; Saarinen, J.J. ; Toivakka, M. ; Mäkelä, Jyrki M. / **Flame deposition of superhydrophobic and superhydrophilic nanoparticle coating on paperboard materials**. 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, 2012. pp. 365-367 (Nanotechnology Conference and Expo Nanotech).

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

Teisala, Hannu ; Tuominen, Mikko ; Aromaa, Mikko ; Stepien, Milena ; Mäkelä, Jyrki M. ; Saarinen, Jarkko J. ; Toivakka, Martti ; Kuusipalo, Jurkka. / **Nanostructures Increase Water Droplet Adhesion on Hierarchically Rough Superhydrophobic Surfaces**. In: Langmuir. 2012 ; Vol. 28, No. 6. pp. 3138-3145.

Stepien, Milena ; Saarinen, Jarkko J. ; Teisala, Hannu ; Tuominen, Mikko ; Aromaa, Mikko ; Kuusipalo, Jurkka ; Mäkelä, Jyrki M. ; Toivakka, Martti. / **Surface chemical analysis of photocatalytic wettability conversion of TiO₂ nanoparticle coating**. In: Surface and Coatings Technology. 2012 ; Vol. 208. pp. 73-79.

Stepien, Milena ; Saarinen, Jarkko J. ; Teisala, Hannu ; Tuominen, Mikko ; Aromaa, Mikko ; Kuusipalo, Jurkka ; Mäkelä, Jyrki M. ; Toivakka, Martti. / **Surface chemical characterization of nanoparticle coated paperboard**. In: Applied Surface Science. 2012 ; Vol. 258, No. 7. pp. 3119-3125.

Gonzalez, Jarold A. ; Tarao, Hiroo ; Korpinen, Leena. / **The Effect of ELF electric fields on Implantable Cardioverter Defibrillators (ICD)**. The Bioelectromagnetics Society 34th Annual Meeting, June 17, 2012 - June 22, 2012, Brisbane, Australia. The Bioelectromagnetics Society, 2012. pp. 104-106 (The Bioelectromagnetics Society Annual Meeting).

Johansson, Kristin ; Christophliemk, Hanna ; Johansson, Caisa ; Jönsson, Leif J. ; Järnström, Lars. / **The effects of coating structure and water-holding capacity on the oxygen-scavenging capacity of enzymes embedded in the coating layer**. 12th TAPPI Advanced Coating Fundamentals Symposium Proceedings, September 10-12, 2012, Atlanta, USA. TAPPI, 2012. pp. 57-69 (TAPPI Advanced Coating Fundamentals Symposium).

Bollström, Roger ; Tuominen, Mikko ; Määttänen, Anni ; Peltonen, Jouko ; Toivakka, Martti. / **Top layer coatability on barrier coatings**. In: Progress in Organic Coatings. 2012 ; Vol. 73, No. 1. pp. 26-32.

Lahtinen, Kimmo ; Johansson, Petri ; Kääriäinen, Tommi ; Maydannik, Philipp ; Cameron, David ; Kuusipalo, Jurkka. / **Toward more controlled, nanoscale barrier layers in packaging**. In: Plastics Research Online. 2012 ; No. 17th August. pp. 1-3.

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

Teisala, Hannu ; Tuominen, Mikko ; Kuusipalo, Jurkka. / **Adhesion Mechanism of Water Droplets on Hierarchically Rough Superhydrophobic Rose Petal Surface**. In: Journal of Nanomaterials. 2011 ; Vol. 2011. pp. 1-6.

Lahti, Johanna ; Eiroma, Kim ; Tenhunen, Tiia-Maria ; Pykönen, Maiju ; Toivakka, Martti ; Tuominen, Mikko. / **Atmospheric Plasma Treatment of Plastic Packaging Film: Effects on Surface Properties and UV Inkjet Printability**. 13th TAPPI European PLACE Conference, Bregenz, Austria, 30 May - 1 June, 2011. Norcross, GA : TAPPI, 2011. pp. 1-31 (TAPPI European PLACE Conference).

Kääriäinen, Tommi O. ; Maydannik, Philipp ; Cameron, David C. ; Lahtinen, Kimmo ; Johansson, Petri ; Kuusipalo, Jurkka. / **Atomic layer deposition on polymer based flexible packaging materials: Growth characteristics and diffusion barrier properties**. In: Thin Solid Films. 2011 ; Vol. 519, No. 10. pp. 3146-3154.

Aroma, Mikko ; Haapanen, Janne ; Teisala, Hannu ; Tuominen, Mikko ; Kuusipalo, Jurkka ; Stepien, M. ; Saarinen, J.J. ; Toivakka, M. ; Mäkelä, Jyrki. / **Deposition of flame synthesised nanoparticles on paperboard surface**. NOSA & FAAR 2011, Nordic Aerosol Symposium, November 9-11, 2011, Tampere, Finland. Tampere : Nordic Society for Aerosol Research, 2011. pp. 17-17 (Nordic Aerosol Symposium NOSA & FAAR).

Tuominen, Mikko ; Lahti, Johanna ; Kuusipalo, Jurkka. / **Effects of flame and corona treatment on extrusion coated paper properties**. In: TAPPI Journal. 2011 ; Vol. 10, No. 10. pp. 29-36.

Mäkelä, Jyrki M. ; Aroma, Mikko ; Teisala, Hannu ; Tuominen, Mikko ; Stepien, Milena ; Saarinen, Jarkko J. ; Toivakka, Martti ; Kuusipalo, Jurkka. / **Nanoparticle Deposition from Liquid Flame Spray onto Moving Roll-to-Roll Paperboard Material**. In: Aerosol Science and Technology. 2011 ; Vol. 45, No. 7. pp. 827-837.

Lahti, Johanna ; Lavonen, Juho. / **Nanoscale Surface Processing of Extrusion Coated Substrates and Plastic Films with Atmospheric Plasma Activation and Deposition**. Novel nanostructured polymeric materials for food packaging and beyond, International COST Workshop, Espoo, Finland, September 15-16, 2011. VTT Symposium. editor / Mika Vähä-Nissi. Espoo : VTT, 2011. pp. 29-30 (International COST Workshop).

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

Bollström, Roger ; Tuominen, Mikko ; Määttä, Anni ; Peltonen, Jouko ; Toivakka, Martti. / **Top layer coatability on barrier coatings**. TAPPI's PaperCon 2011, May 1-4, 2011, Covington, KY, USA. Paper 360 - Special PaperCon Edition. Norcross, GA : TAPPI, 2011. pp. 1-11 (TAPPI International Conference Papercon).

Lahtinen, Kimmo ; Maydannik, Philipp ; Johansson, Petri ; Kääriäinen, Tommi ; Cameron, David C. ; Kuusipalo, Jurkka. / **Utilisation of continuous atomic layer deposition process for barrier enhancement of extrusion-coated paper**. In: Surface and Coatings Technology. 2011 ; Vol. 205, No. 15. pp. 3916-3922.

Johansson, Petri ; Lahtinen, Kimmo ; Kuusipalo, Jurkka ; Kääriäinen, Tommi ; Maydannik, Philipp ; Cameron, David. / **Atomic layer deposition process for barrier applications of flexible packaging**. TAPPI 2010 PLACE Conference, April 18-21, 2010, Albuquerque NM, USA. 2010. pp. 1-12

Vartiainen, Jari ; Tuominen, Mikko ; Nättinen, Kalle. / **Bio-Hybrid Nanocomposite Coatings from Sonicated Chitosan and Nanoclay**. In: Journal of Applied Polymer Science. 2010 ; Vol. 116, No. 6. pp. 3638-3647.

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

Honkanen, Markus ; Eloranta, Hannu ; Saarenrinne, Pentti. / **Digital imaging measurement of dense multiphase flows in industrial processes.** In: Flow Measurement and Instrumentation. 2010 ; Vol. 21, No. 1. pp. 25-32.

Larkomaa, Jaakko ; Niinimäki, Jouko ; Honkanen, Markus ; Hanif, Muhammad ; Saarenrinne, Pentti. / **Effect of fibre properties on flocculation and fractionation of cellulosic fibres in dry state.** In: Journal of Engineered Fibers and Fabrics. 2010 ; Vol. 5, No. 1. pp. 1-10.

Johansson, Kristin ; Christophliemk, Hanna ; Jönsson, Leif J. ; Järnström, Lars. / **Effect of Pigment Volume Concentration and Drying Aspects on the Enzyme Activity of Clay Coatings.** 11th Advanced Coating Fundamentals Symposium Proceedings, The Latest Advances in Coating Research and Development, 11-13 October 2010, Munich, Germany. USA : TAPPI Press, 2010. pp. 129-143 (TAPPI Advanced Coating Fundamentals Symposium).

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

Lahti, Johanna ; Eiroma, Kim ; Tenhunen, Tiia-Maria ; Pykönen, Maiju ; Toivakka, Martti. / **Influence of Atmospheric Plasma Treatment on Surface Properties and Inkjet Printability of Plastic Packaging Film.** Advances in Printing and Media Technology. editor / Nils Enlund ; Mladen Lovrecek. 2010. pp. 197-203

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

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