

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

Valorization of Finnish mining tailings for use in the ceramics industry

Utilization of CO<sub>2</sub> in modification of galvanized steel surface

Utilisation of continuous atomic layer deposition process for barrier enhancement of extrusion-coated paper

Two-phase PIV/PTV measurement of bubbly flow across pin fins in a micro-channel

Two-component aerosol nanoparticle coating for paperboard on roll-to-roll process

Towards material excellence  
Evaluation of Tekes' programmes on materials

Toward more controlled, nanoscale barrier layers in packaging

Top layer coatability on barrier coatings

Top layer coatability on barrier coatings

Titanium oxide based nanoparticles by laser ablation in supercritical carbon dioxide

Thermo-catalytic decomposition of methane  
The effect of reaction parameters on process design and the utilization possibilities of the produced carbon

The name of the thesis: Surface Treatment in Extrusion Coating, Topic: The Influence of Corona and Flame Treatment on Sealability of Extrusion Coated Paper

The name of the thesis: Atmospheric Plasma Treatment in Extrusion Coating, Topic: The Effect of Flame Treatment on the Sealability of Extrusion Coated Paper

The effects of UV irradiation to polyetheretherketone fibres  
Characterization by different techniques

The effects of coating structure and water-holding capacity on the oxygen-scavenging capacity of enzymes embedded in the coating layer

The effect of the outermost fibre layers on solubility of dissolving grade pulp

The effect of physical adhesion promotion treatments on interfacial adhesion in cellulose-epoxy composite

The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part II  
Characterization of Structural Changes by Transmission Electron Microscopy

The Effect of Phosphorus Exposure on Diesel Oxidation Catalysts-Part I  
Activity Measurements, Elementary and Surface Analyses

The effect of flame treatment on surface properties and heat sealability of low-density polyethylene coating

The Effect of ELF electric fields on Implantable Cardioverter Defibrillators (ICD)

Techno-economic analysis of four concepts for thermal decomposition of methane: Reduction of CO<sub>2</sub> emissions in natural gas combustion

Tailored Fabrication of Transferable and Hollow Weblike Titanium Dioxide Structures

Synthesis, crystal structure, spectral, dielectric characteristics and conduction mechanism of two novel carboxylates of 1-benzhydrylpiperazine

Sustainable nutrients recovery and recycling by optimizing the chemical addition sequence for struvite precipitation from raw swine slurries

Surface chemical characterization of nanoparticle coated paperboard

Surface chemical analysis of photocatalytic wettability conversion of TiO<sub>2</sub> nanoparticle coating

Solution Modified Fumed Silica and Its Effect on Charge Trapping Behavior of PP/POE/Silica Nanodielectrics

Simulation of ash-forming compounds in the kraft recovery boiler

Silver-Decorated TiO<sub>2</sub> Inverse Opal Structure for Visible Light-Induced Photocatalytic Degradation of Organic Pollutants and Hydrogen Evolution

Research on icing behavior and ice adhesion testing of icephobic surfaces

Remarkable Dependence of the Final Charge Separation Efficiency on the Donor-Acceptor Interaction in Photoinduced Electron Transfer

Preferential Attachments of Organic Dyes onto {101} Facets of TiO<sub>2</sub> Nanoparticles

Pinacol-Derived Chlorohydrosilane in Metal-Free Reductive Amination for the Preparation of Tertiary Alkylphenolmethyl Amines

Photocatalytic and antibacterial properties of ZnO films with different surface topographies on stainless steel substrate

Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as  $\pi$ -acceptors for anions

On the effect of deformation twinning and microstructure to strain hardening of high manganese austenitic steel 3D microstructure aggregates at large strains

Numerical modeling of fine particle and deposit formation in a recovery boiler

Noncovalent functionalization of reduced graphene oxide with pluronic F127 and its nanocomposites with gum arabic

Nanostructures Increase Water Droplet Adhesion on Hierarchically Rough Superhydrophobic Surfaces

Nanoscale Surface Processing of Extrusion Coated Substrates and Plastic Films with Atmospheric Plasma Activation and Deposition

Nanoscale surface processing of extrusion coated substrates and plastic films with atmospheric plasma activation and deposition

Nanoparticle Deposition from Liquid Flame Spray onto Moving Roll-to-Roll Paperboard Material

N-Alkyl ammonium resorcinarene salts  
multivalent halogen-bonded deep-cavity cavitands

Modelling fume deposit growth in recovery boilers: effect of flue gas and deposit temperature

Modeling Fume Particle Dynamics and Deposition with Alkali Metal Chemistry in Kraft Recovery Boilers

Microstructure-property relationships of novel ultra-high strength press hardening steels

Methane thermal decomposition in regenerative heat exchanger reactor: Experimental and modeling study

Measuring synthesis yield in graphene oxide synthesis by modified hummers method

Machine-coated starch-based dispersion coatings prevent mineral oil migration from paperboard

Low temperature temporal and spatial atomic layer deposition of TiO<sub>2</sub> films

Light-fuelled freestyle self-oscillators

Influence of Atmospheric Plasma Treatment on Surface Properties and Inkjet Printability of Plastic Packaging Film

Improving the extensibility, wet web and dry strength of paper by addition of agar

Improving Recovery Boiler Availability through Understanding Fume Behavior

Impact of mechanical and enzymatic pretreatments on softwood pulp fiber wall structure studied with NMR spectroscopy and X-ray scattering

Image based measurement of particle phase reynolds stresses in a laboratory scale circulating fluidized bed

High-temperature slurry erosion of vinylester matrix composites – The effect of test parameters

High temperature oxidation tests for the high velocity solution precursor flame sprayed manganese-cobalt oxide spinel protective coatings on SOFC interconnector steel

High performance wear and corrosion resistant coatings by novel cladding techniques

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

From partial to complete optical erasure of azobenzene-polymer gratings: effect of molecular weight

Flame deposition of superhydrophobic and superhydrophilic nanoparticle coating on paperboard materials

Fermentative metabolism of an anaerobic, thermophilic consortium on plant polymers and commercial paper samples

Entrapped Styrene Butadiene Polymer Chains by Sol-Gel-Derived Silica Nanoparticles with Hierarchical Raspberry Structures

Enhancing piezoelectric properties of bacterial cellulose films by incorporation of MnFe<sub>2</sub>O<sub>4</sub> nanoparticles

Enhanced pre-treatment of cellulose pulp prior to dissolution into NaOH/ZnO

Engineering and Characterization of Bacterial Nanocellulose Films as Low Cost and Flexible Sensor Material

Electrospun Black Titania Nanofibers

Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance

Electronic couplings and rates of excited state charge transfer processes at poly(thiophene-*co*-quinoxaline)-PC<sub>71</sub>BM interfaces: two- *versus* multi-state treatments

Electronically Coupled Uranium and Iron Oxide Heterojunctions as Efficient Water Oxidation Catalysts

Effects of flame and corona treatment on extrusion coated paper properties

Effect of rheological properties of dissolved cellulose/microfibrillated cellulose blend suspensions on film forming

Effect of Pigment Volume Concentration and Drying Aspects on the Enzyme Activity of Clay Coatings

Effect of fibre properties on flocculation and fractionation of cellulosic fibres in dry state

Effect of alkali and silane surface treatments on regenerated cellulose fibre type (Lyocell) intended for composites

Economic analysis of hydrogen production by methane thermal decomposition  
Comparison to competing technologies

Dissolution of enzyme-treated cellulose using freezing thawing method and the properties of fibres regenerated from the solution

Digital imaging measurement of dense multiphase flows in industrial processes

Diffusion of acidic solution through rubber at high temperature and its effect on metal-rubber interface degradation

Development of sustainable paper coatings using nanoscale industrial

Design driven world of cellulose-from bulk to luxury?

Deposition of flame synthesised nanoparticles on paperboard surface

Creation of superhydrophilic surfaces of paper and board

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

Corrosion propagation phase studies on Finnish reinforced concrete facades

Corrosion products of carbonation induced corrosion in existing reinforced concrete facades

Convenient extraction method for quantification of thin zinc patina layers

Composite Hydrogels Using Bioinspired Approach with in Situ Fast Gelation and Self-Healing Ability as Future Injectable Biomaterial

Coating of Silica and Titania Aerosol Nanoparticles by Silver Vapor Condensation

Chemical Dissolution of Pt(111) During Potential Cycling Under Negative pH Conditions Studied by Operando X-ray Photoelectron Spectroscopy

Charge Shift/Recombination and Triplet Formation in a Closely-Spaced Molecular Dyad based on a Borondipyrrromethene (Bodipy) and an Expanded Acridinium Cation

Characterization of endoglucanase rich *Trichoderma reesei* cellulase mixtures and their effect on alkaline solubility of dissolving pulp

Bio-Hybrid Nanocomposite Coatings from Sonicated Chitosan and Nanoclay

Atomic layer deposition process for barrier applications of flexible packaging

Atomic layer deposition on polymer based flexible packaging materials: Growth characteristics and diffusion barrier properties

Atmospheric synthesis of superhydrophobic TiO<sub>2</sub> nanoparticle deposits in a single step using Liquid Flame Spray

Atmospheric Plasma Treatment of Plastic Packaging Film: Effects on Surface Properties and UV Inkjet Printability

Anaerobic treatment and resource recovery from methanol rich waste gases and wastewaters

Adhesion of Extrusion-Coated Polymer Sealing Layers to a Fiber-Based Packaging Material with an Atomic Layer Deposited Aluminum Oxide Surface Coating

## Adhesion Mechanism of Water Droplets on Hierarchically Rough Superhydrophobic Rose Petal Surface