

A Finite Cluster Approach to the Electron-Hole Pair Damping of the Adsorbate Vibration: CO Adsorbed on Cu(100)

Rantala, T. T., Rosén, A. & Hellsing, B., 1986, In : Studies in Surface Science and Catalysis. 26, C, p. 173-181 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Sorption and retention of ethylene glycol monoethyl ether (EGME) on silicas

Kellomäki, A., Kuula-Väisänen, P. & Nieminen, P., 1989, In : Journal of Colloid and Interface Science. 129, 2, p. 373-378 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Thermophilic anaerobic digestion of source-sorted household solid waste: the effects of enzyme additions

Rintala, J. A. & Ahring, B. K., Feb 1994, In : Applied Microbiology and Biotechnology. 40, 6, p. 916-919 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A two-stage thermophilic anaerobic process for the treatment of source sorted household solid waste

Rintala, J. A. & Ahring, B. K., Oct 1994, In : Biotechnology Letters. 16, 10, p. 1097-1102 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Start-up and Operation of Laboratory-Scale Thermophilic Upflow Anaerobic Sludge Blanket Reactors Treating Vegetable Processing Wastewaters

Lepistö, S. S. & Rintala, J. A., Mar 1997, In : Journal of Chemical Technology and Biotechnology. 68, 3, p. 331-339 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Biokalvojen rakenteen ja toiminnan simulointi tuo uutta tietoa rasvoista

Hyvönen, M. T., Rantala, T. T. & Ala-Korpela, M., 1999, In : Kemia - Kemi. 26, 3, p. 222-225 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Anaerobically digested poultry slaughterhouse wastes as fertiliser in agriculture

Salminen, E., Rintala, J., Härkönen, J., Kuitunen, M., Högmander, H. & Oikari, A., 2001, In : Bioresource Technology. 78, 1, p. 81-88 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Biological treatment of pulp and paper mill process and wastewaters under thermophilic conditions - A review

Suvilampi, J., Lepistö, R. & Rintala, J., 2001, In : Paperi ja puu. 83, 4, p. 320-325 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A simulation case study of production planning and control in printed wiring board manufacturing

Korhonen, H. M. E., Heikkilä, J. & Törnwall, J. M., 1 Dec 2001, In : Winter Simulation Conference Proceedings. 2, p. 844-847 4 p.

Research output: Contribution to journal > Conference article > Scientific > peer-review

Anaerobic digestion of organic solid poultry slaughterhouse waste - A review

Salminen, E. & Rintala, J., 2002, In : Bioresource Technology. 83, 1, p. 13-26 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Modeling of anaerobic degradation of solid slaughterhouse waste: Inhibition effects of long-chain fatty acids or ammonia

Lokshina, L. Y., Vavilin, V. A., Salminen, E. & Rintala, J., Apr 2003, In : Applied Biochemistry and Biotechnology. 109, 1-3, p. 15-32 18 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Comparison of laboratory-scale thermophilic biofilm and activated sludge processes integrated with a mesophilic activated sludge process

Suvilampi, J., Lehtomäki, A. & Rintala, J., Jul 2003, In : Bioresource Technology. 88, 3, p. 207-214 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Modeling solid waste decomposition

Vavilin, V. A., Lokshina, L. Y., Jokela, J. P. Y. & Rintala, J. A., Aug 2004, In : *Bioresource Technology*. 94, 1, p. 69-81 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Hydrolysis rates, methane production and nitrogen solubilisation of grey waste components during anaerobic degradation

Jokela, J. P. Y., Vavilin, V. A. & Rintala, J. A., Mar 2005, In : *Bioresource Technology*. 96, 4, p. 501-508 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Anaerobic on-site treatment of kitchen waste in combination with black water in UASB-septic tanks at low temperatures

Luostarinen, S. & Rintala, J., Jul 2007, In : *Bioresource Technology*. 98, 9, p. 1734-1740 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Statistical modeling of water vapor transmission rates for extrusion-coated papers

Lahtinen, K. & Kuusipalo, J., 2008, *TAPPI 2008 PLACE Conference: Innovations in Flexible Consumer Packaging*.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Effects of solid-liquid separation on recovering residual methane and nitrogen from digested dairy cow manure

Kaparaju, P. L. N. & Rintala, J. A., Jan 2008, In : *Bioresource Technology*. 99, 1, p. 120-127 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Anaerobic digestion of grass silage in batch leach bed processes for methane production

Lehtomäki, A., Huttunen, S., Lehtinen, T. M. & Rintala, J. A., May 2008, In : *Bioresource Technology*. 99, 8, p. 3267-3278 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Leachate and gaseous emissions from initial phases of landfilling mechanically and mechanically-biologically treated municipal solid waste residuals

Sormunen, K., Einola, J., Ettala, M. & Rintala, J., May 2008, In : *Bioresource Technology*. 99, 7, p. 2399-2409 11 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Group-specific quantification of methanotrophs in landfill gas-purged laboratory biofilters by tyramide signal amplification-fluorescence in situ hybridization

Wang, H., Einola, J., Heinonen, M., Kulomaa, M. & Rintala, J., Sep 2008, In : *Bioresource Technology*. 99, 14, p. 6426-6433 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Effects of storage on characteristics and hygienic quality of digestates from four co-digestion concepts of manure and biowaste

Paavola, T. & Rintala, J., Oct 2008, In : *Bioresource Technology*. 99, 15, p. 7041-7050 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Storing energy crops for methane production: Effects of solids content and biological additive

Pakarinen, O., Lehtomäki, A., Rissanen, S. & Rintala, J., Oct 2008, In : *Bioresource Technology*. 99, 15, p. 7074-7082 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

The effects of corona and flame treatment: Part 2. PE-HD and PP coated papers

Lahti, J., Tuominen, M., Penttinen, T., Räsänen, J. P. & Kuusipalo, J., 2009, *TAPPI Press - 12th European PLACE Conference 2009*. Vol. 1. p. 278-314 37 p.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Impact of crop species on bacterial community structure during anaerobic co-digestion of crops and cow manure

Wang, H., Lehtomäki, A., Tolvanen, K., Puhakka, J. & Rintala, J., Apr 2009, In : *Bioresource Technology*. 100, 7, p. 2311-2315 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Biogas production from boreal herbaceous grasses - Specific methane yield and methane yield per hectare

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Research output: Contribution to journal > Article > Scientific > peer-review

On entropy-based molecular descriptors: Statistical analysis of real and synthetic chemical structures

Dehmer, M., Varmuza, K., Borgert, S. & Emmert-Streib, F., 27 Jul 2009, In : *Journal of Chemical Information and Modeling*. 49, 7, p. 1655-1663 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Surface science analysis and surface modification methods for biomaterials research

Kanninen, L., Jokinen, N., Lahtonen, K., Jussila, P., Ali-Löytty, H., Hirsimäki, M., Leppiniemi, J., Hytönen, V., Kulomaa, M., Ahola, N., Paakinaho, K., Kellomäki, M. & Valden, M., 1 Jan 2010, In : *European Cells and Materials*. 20, SUPPL. 3, p. 133 1 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Effect of micro-aeration and leachate replacement on COD solubilization and VFA production during mono-digestion of grass-silage in one-stage leach-bed reactors

Jagadabhi, P. S., Kaparaju, P. & Rintala, J., Apr 2010, In : *Bioresource Technology*. 101, 8, p. 2818-2824 7 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Effect of pre-treatments on barrier properties of layers applied by atomic layer deposition onto polymer-coated substrates

Vähä-Nissi, M., Hirvikorpi, T., Sievänen, J., Salo, E., Harlin, A., Johansson, P. & Kuusipalo, J., 2011, *13th European PLACE Conference 2011*. Vol. 1. p. 447 1 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Enrichment polymer layers for detection of volatile vapors by ATR FT-IR

Giannarco, J. M., Zdyrko, B., Hu, J., Agarwal, A., Kimerling, L., Carlie, N., Petit, L., Richardson, K. & Luzinov, I., 2011, In : *ACS National Meeting Book of Abstracts*.
Research output: Contribution to journal > Article > Scientific > peer-review

Nanoparticle deposition on packaging materials by the liquid flame spray

Teisala, H., Tuominen, M., Aromaa, M., Mäkelä, J. M., Stepien, M., Saarinen, J. J., Toivakka, M. & Kuusipalo, J., 2011, *13th European PLACE Conference 2011*. Vol. 1. 2 p.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Chimeric avidin shows stability against harsh chemical conditions-biochemical analysis and 3D structure

Määttä, J. A. E., Eisenberg-Domovich, Y., Nordlund, H. R., Hayouka, R., Kulomaa, M. S., Livnah, O. & Hytönen, V. P., Mar 2011, In : *Biotechnology and Bioengineering*. 108, 3, p. 481-490 10 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model

Daculsi, G., Goyenvalle, E., Cognet, R., Aguado, E. & Suokas, E. O., Apr 2011, In : *Biomaterials*. 32, 12, p. 3166-3177 12 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Two-stage anaerobic digestion of tomato, cucumber, common reed and grass silage in leach-bed reactors and upflow anaerobic sludge blanket reactors

Jagadabhi, P. S., Kaparaju, P. & Rintala, J., Apr 2011, In : *Bioresource Technology*. 102, 7, p. 4726-4733 8 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Hybrid nanoparticle design based on cationized gelatin and the polyanions dextran sulfate and chondroitin sulfate for ocular gene therapy

Zorzi, G. K., Párraga, J. E., Seijo, B. & Sánchez, A., 7 Jul 2011, In : *MACROMOLECULAR BIOSCIENCE*. 11, 7, p. 905-913 9 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Defined-size DNA triple crossover construct for molecular electronics: Modification, positioning and conductance properties

Linko, V., Leppiniemi, J., Paasonen, S. T., Hytönen, V. P. & Jussi Toppari, J., 8 Jul 2011, In : *Nanotechnology*. 22, 27, 275610.

Research output: Contribution to journal > Article > Scientific > peer-review

Towards universal enrichment nanocoating for IR-ATR waveguides

Giammarco, J., Zdyrko, B., Petit, L., Musgraves, J. D., Hu, J., Agarwal, A., Kimerling, L., Richardson, K. & Luzinov, I., 28 Aug 2011, In : *Chemical Communications*. 47, 32, p. 9104-9106 3 p.

Research output: Contribution to journal > Article > Scientific > peer-review

The effect of organic loading rate and retention time on hydrogen production from a methanogenic CSTR

Pakarinen, O., Kaparaju, P. & Rintala, J., Oct 2011, In : *Bioresource Technology*. 102, 19, p. 8952-8957 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Versatile bio-ink for covalent immobilization of chimeric avidin on sol-gel substrates

Heikkinen, J. J., Kivimäki, L., Määttä, J. A. E., Mäkelä, I., Hakalahti, L., Takkinen, K., Kulomaa, M. S., Hytönen, V. P. & Hormi, O. E. O., 15 Oct 2011, In : *Colloids and Surfaces B: Biointerfaces*. 87, 2, p. 409-414 6 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Screening ethnically diverse human embryonic stem cells identifies a chromosome 20 minimal amplicon conferring growth advantage

Amps, K., Andrews, P. W., Anyfantis, G., Armstrong, L., Avery, S., Baharvand, H., Baker, J., Baker, D., Munoz, M. B., Beil, S., Benvenisty, N., Ben-Yosef, D., Biancotti, J. C., Bosman, A., Brena, R. M., Brison, D., Caisander, G., Camarasa, M. V., Chen, J., Chiao, E., Choi, Y. M., Choo, A. B. H., Collins, D., Colman, A., Crook, J. M., Daley, G. Q., Dalton, A., De Sousa, P. A., Denning, C., Downie, J., Dvorak, P., Montgomery, K. D., Feki, A., Ford, A., Fox, V., Fraga, A. M., Frumkin, T., Ge, L., Gokhale, P. J., Golan-Lev, T., Gourabi, H., Gropp, M., Guangxiu, L., Hampl, A., Harron, K., Healy, L., Herath, W., Holm, F., Hovatta, O., Hyllner, J., Inamdar, M. S., Irwanto, A. K., Ishii, T., Jaconi, M., Jin, Y., Kimber, S., Kiselev, S., Knowles, B. B., Kopper, O., Kukhareenko, V., Kuliev, A., Lagarkova, M. A., Laird, P. W., Lako, M., Laslett, A. L., Lavon, N., Lee, D. R., Lee, J. E., Li, C., Lim, L. S., Ludwig, T. E., Ma, Y., Maltby, E., Mateizel, I., Mayshar, Y., Mileikovsky, M., Minger, S. L., Miyazaki, T., Moon, S. Y., Moore, H., Mummery, C., Nagy, A., Nakatsuji, N., Narwani, K., Oh, S. K. W., Oh, S. K., Olson, C., Otonkoski, T., Pan, F., Park, I. H., Pells, S., Pera, M. F., Pereira, L. V., Qi, O., Raj, G. S., Reubinoff, B., Robins, A., Robson, P., Rossant, J., Salekdeh, G. H., Schulz, T. C., Sermon, K., Mohamed, J. S., Shen, H., Sherrer, E., Sidhu, K., Sivarajah, S., Skottman, H., Spits, C., Stacey, G. N., Strehl, R., Strelchenko, N., Suemori, H., Sun, B., Suuronen, R., Takahashi, K., Tuuri, T., Venu, P., Verlinsky, Y., Oostwaard, D. W. V., Weisenberger, D. J., Wu, Y., Yamanaka, S., Young, L. & Zhou, Q., Dec 2011, In : *Nature Biotechnology*. 29, 12, p. 1132-1144 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Synthesis of depsipeptides from L-amino acids and lactones

Cao, H., Feng, Y., Wang, H., Zhang, L., Khan, M. & Guo, J., Dec 2011, In : *Frontiers of Chemical Science and Engineering*. 5, 4, p. 409-415 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Conductive layers on surface modified natural fibre based substrates for printed functionality

Valtakari, D., Bollström, R., Tuominen, M., Teisala, H., Aromaa, M., Toivakka, M., Kuusipalo, J., Mäkelä, J. M., Uozumi, J. & Saarinen, J. J., 2012, *AICHE 2012 - 2012 AIChE Annual Meeting, Conference Proceedings*.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Osteogenic medium is superior to growth factors in differentiation of human adipose stem cells towards boneforming cells in 3D culture

Tirkkonen, L., Haimi, S., Huttunen, S., Wolff, J., Pirhonen, E., Sándor, G. K. & Miettinen, S., 2012, In : *European Cells and Materials*. 25, p. 144-158 15 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Utilization of agrowaste polymers in PVC/NBR alloys: Tensile, thermal, and morphological properties

Mousa, A., Heinrich, G., Kretzschmar, B., Wagenknecht, U. & Das, A., 2012, In : *INTERNATIONAL JOURNAL OF CHEMICAL ENGINEERING*. 121496.

Research output: Contribution to journal › Article › Scientific › peer-review

Human adipose tissue extract induces angiogenesis and adipogenesis in vitro

Sarkanen, J. R., Kaila, V., Mannerström, B., Rätty, S., Kuokkanen, H., Miettinen, S. & Ylikomi, T., 1 Jan 2012, In : Tissue Engineering Part A. 18, 1-2, p. 17-25 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Demonstration of increased lipid accumulation potential of *Stigeoclonium* sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production

Praveenkumar, R., Johny, K., MubarakAli, D., Vijayan, D., Thajuddin, N. & Gunasekaran, M., Apr 2012, In : Journal of Biobased Materials and Bioenergy. 6, 2, p. 209-213 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Highly exfoliated natural rubber/Clay composites by "propping-open procedure": The influence of fatty-acid chain length on exfoliation

Rooj, S., Das, A., Stöckelhuber, K. W., Reuter, U. & Heinrich, G., Apr 2012, In : Macromolecular Materials and Engineering. 297, 4, p. 369-383 15 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Structural characteristics and flammability of fire retarding EPDM/layered double hydroxide (LDH) nanocomposites

Wang, D. Y., Das, A., Leuteritz, A., Mahaling, R. N., Jehnichen, D., Wagenknecht, U. & Heinrich, G., 21 Apr 2012, In : RSC Advances. 2, 9, p. 3927-3933 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Molecular mechanisms of ion-specific effects on proteins

Rembert, K. B., Paterová, J., Heyda, J., Hilty, C., Jungwirth, P. & Cremer, P. S., 20 Jun 2012, In : Journal of the American Chemical Society. 134, 24, p. 10039-10046 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Impact of biodiesel application at various blending ratios on passenger cars of different fueling technologies

Kousoulidou, M., Ntziachristos, L., Fontaras, G., Martini, G., Dilara, P. & Samaras, Z., Aug 2012, In : Fuel. 98, p. 88-94 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Biomimetic surface modification of polycarbonateurethane film via phosphorylcholine-graft for resisting platelet adhesion

Gao, W., Feng, Y., Lu, J., Khan, M. & Guo, J., Oct 2012, In : Macromolecular Research. 20, 10, p. 1063-1069 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Fabrication of ssDNA/oligo(ethylene glycol) monolayers and complex nanostructures by an irradiation-promoted exchange reaction

Khan, M. N., Tjong, V., Chilkoti, A. & Zharnikov, M., 8 Oct 2012, In : Angewandte Chemie (International Edition). 51, 41, p. 10303-10306 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Influence of ionic liquids on the dielectric relaxation behavior of CNT based elastomer nanocomposites

Steinhauser, D., Subramaniam, K., Das, A., Heinrich, G. & Klüppel, M., Nov 2012, In : Express Polymer Letters. 6, 11, p. 927-936 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

New reports on anti-bacterial and anti-candidal activities of fatty acid methyl esters (FAME) obtained from *Scenedesmus bijugatus* var. *bicellularis* biomass

Mubarakali, D., Praveenkumar, R., Shenbagavalli, T., Mari Nivetha, T., Parveez Ahamed, A., Al-Dhabi, N. A. & Thajuddin, N., 28 Nov 2012, In : RSC Advances. 2, 30, p. 11552-11556 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Improving the effect of a nanoscale barrier coating on BOPP film properties by surface pretreatments

Lahtinen, K., Lahti, J., Johansson, P., Seppänen, T. & Cameron, D. C., 2013, *14th European PLACE Conference 2013*. TAPPI Press, Vol. 1. p. 469-493 25 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A 'clusters-in-liquid' method for calculating infrared spectra identifies the proton-transfer mode in acidic aqueous solutions

Kulig, W. & Agmon, N., Jan 2013, In : *Nature Chemistry*. 5, 1, p. 29-35 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A potential nonthrombogenic small-diameter vascular scaffold with polyurethane/poly(ethylene glycol) hybrid materials by electrospinning technique

Wang, H., Feng, Y., Zhao, H., Fang, Z., Khan, M. & Guo, J., Feb 2013, In : *Journal Nanoscience and Nanotechnology*. 13, 2, p. 1578-1582 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Chemically tailored dielectric-to-metal transition for the design of metamaterials from nanoimprinted colloidal nanocrystals

Fafarman, A. T., Hong, S. H., Caglayan, H., Ye, X., Diroll, B. T., Paik, T., Engheta, N., Murray, C. B. & Kagan, C. R., 13 Feb 2013, In : *Nano Letters*. 13, 2, p. 350-357 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Fabrication of a sub-10 nm silicon nanowire based ethanol sensor using block copolymer lithography

Rasappa, S., Borah, D., Faulkner, C. C., Lutz, T., Shaw, M. T., Holmes, J. D. & Morris, M. A., 15 Feb 2013, In : *Nanotechnology*. 24, 6, 065503.

Research output: Contribution to journal > Article > Scientific > peer-review

The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions

Borah, D., Rasappa, S., Sentharamakannan, R., Shaw, M. T., Holmes, J. D. & Morris, M. A., 1 Mar 2013, In : *Journal of Colloid and Interface Science*. 393, 1, p. 192-202 11 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Immobilized bioactive agents onto polyurethane surface with heparin and phosphorylcholine group

Tan, M., Feng, Y., Wang, H., Zhang, L., Khan, M., Guo, J., Chen, Q. & Liu, J., May 2013, In : *Macromolecular Research*. 21, 5, p. 541-549 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Screening pretreatment methods to enhance thermophilic anaerobic digestion of pulp and paper mill wastewater treatment secondary sludge

Bayr, S., Kaparaju, P. & Rintala, J., 1 May 2013, In : *Chemical Engineering Journal*. 223, p. 479-486 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Shape-dependent plasmonic response and directed self-assembly in a new semiconductor building block, indium-doped cadmium oxide (ICO)

Gordon, T. R., Paik, T., Klein, D. R., Naik, G. V., Caglayan, H., Boltasseva, A. & Murray, C. B., 12 Jun 2013, In : *Nano Letters*. 13, 6, p. 2857-2863 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Development and characterization of poly(ϵ -caprolactone) hollow fiber membranes for vascular tissue engineering

Diban, N., Haimi, S., Bolhuis-Versteeg, L., Teixeira, S., Miettinen, S., Poot, A., Grijpma, D. & Stamatialis, D., 1 Jul 2013, In : *Journal of Membrane Science*. 438, p. 29-37 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Mechanisms of acceleration and retardation of water dynamics by ions

Stirnemann, G., Wernersson, E., Jungwirth, P. & Laage, D., 14 Aug 2013, In : *Journal of the American Chemical Society*. 135, 32, p. 11824-11831 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Reversible biofunctionalization of surfaces with a switchable mutant of avidin

Pollheimer, P., Taskinen, B., Scherfler, A., Gusenkov, S., Creus, M., Wiesauer, P., Zauner, D., Schöfberger, W., Schwarzinger, C., Ebner, A., Tampé, R., Stutz, H., Hytönen, V. P. & Gruber, H. J., 16 Oct 2013, In : *Bioconjugate Chemistry*. 24, 10, p. 1656-1668 13 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Magnetophoretic harvesting of oleaginous *Chlorella* sp. by using biocompatible chitosan/magnetic nanoparticle composites

Lee, K., Lee, S. Y., Na, J. G., Jeon, S. G., Praveenkumar, R., Kim, D. M., Chang, W. S. & Oh, Y. K., Dec 2013, In : *Bioresource Technology*. 149, p. 575-578 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Direct observation of the collapse of the delocalized excess electron in water

Savolainen, J., Uhlig, F., Ahmed, S., Hamm, P. & Jungwirth, P., 2014, In : *Nature Chemistry*. 6, 8, p. 697-701 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effect of non-rubber components of NR on the carbon nanotube (CNT) localization in SBR/NR blends

Le, H. H., Parsekar, M., Ilich, S., Henning, S., Das, A., Stöckelhuber, K. W., Beiner, M., Ho, C. A., Adhikari, R., Wießner, S., Heinrich, G. & Radosch, H. J., 2014, In : *Macromolecular Materials and Engineering*. 299, 5, p. 569-582 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Fabrication of 3-D nanodimensioned electric double layer capacitor structures using block copolymer templates

Rasappa, S., Borah, D., Sentharamaikannan, R., Faulkner, C. C., Holmes, J. D. & Morris, M. A., 2014, In : *Journal Nanoscience and Nanotechnology*. 14, 7, p. 5221-5227 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Improving the effect of nanoscale barrier coating on BOPP film properties: Influence of substrate contamination, web handling and pretreatments

Lahti, J., Johansson, P., Lahtinen, K., Cameron, D. C. & Seppänen, T., 2014, *TAPPI PLACE Conference 2014*. TAPPI Press, Vol. 2. p. 1039-1061 23 p.

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Nickel-based HVOF coatings promoting high temperature corrosion resistance of biomass-fired power plant boilers

Oksa, M., Auerkari, P., Salonen, J. & Varis, T., 2014, In : *Fuel Processing Technology*. 125, p. 236-245 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Repeated use of stable magnetic flocculant for efficient harvest of oleaginous *Chlorella* sp.

Lee, K., Lee, S. Y., Praveenkumar, R., Kim, B., Seo, J. Y., Jeon, S. G., Na, J. G., Park, J. Y., Kim, D. M. & Oh, Y. K., 2014, In : *Bioresource Technology*. 167, p. 284-290 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Stearate Modified Zinc-Aluminum Layered Double Hydroxides and Acrylonitrile Butadiene Rubber Nanocomposites

Eshwaran, S. B., Basu, D., Kutlu, B., Leuteritz, A., Wagenknecht, U., Stöckelhuber, K. W., Naskar, K., Das, A. & Heinrich, G., Jan 2014, In : *Polymer-Plastics Technology and Engineering*. 53, 1, p. 65-73 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Large-area arrays of three-dimensional plasmonic subwavelength-sized structures from azopolymer surface-relief gratings

Moerland, R. J., Koskela, J. E., Kravchenko, A., Simberg, M., Van Der Vegte, S., Kaivola, M., Priimagi, A. & Ras, R. H. A., 1 Jan 2014, In : *Materials Horizons*. 1, 1, p. 74-80 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons

Zhang, D., Pekkanen-Mattila, M., Shahsavani, M., Falk, A., Teixeira, A. I. & Herland, A., Feb 2014, In : *Biomaterials*. 35, 5, p. 1420-1428 9 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Structure and barrier properties of human embryonic stem cell-derived retinal pigment epithelial cells are affected by extracellular matrix protein coating

Sorkio, A., Hongisto, H., Kaarniranta, K., Uusitalo, H., Juuti-Uusitalo, K. & Skottman, H., 1 Feb 2014, In : Tissue Engineering Part A. 20, 3-4, p. 622-634 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Assessment of metabolic flux distribution in the thermophilic hydrogen producer *Caloramator celer* as affected by external pH and hydrogen partial pressure

Ciranna, A., Pawar, S. S., Santala, V., Karp, M. & van Niel, E. W. J., 28 Mar 2014, In : Microbial Cell Factories. 13, 1, 48.

Research output: Contribution to journal › Article › Scientific › peer-review

Light-fuelled transport of large dendrimers and proteins

Koskela, J. E., Liljeström, V., Lim, J., Simanek, E. E., Ras, R. H. A., Priimagi, A. & Kostianen, M. A., 14 May 2014, In : Journal of the American Chemical Society. 136, 19, p. 6850-6853 4 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Bioprocessing of enhanced cellulase production from a mutant of *Trichoderma asperellum* RCK2011 and its application in hydrolysis of cellulose

Raghuwanshi, S., Deswal, D., Karp, M. & Kuhad, R. C., 15 May 2014, In : Fuel. 124, p. 183-189 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Molecular engineering of avidin and hydrophobin for functional self-assembling interfaces

Kurppa, K., Hytönen, V. P., Nakari-Setälä, T., Kulomaa, M. S. & Linder, M. B., 1 Aug 2014, In : Colloids and Surfaces B: Biointerfaces. 120, p. 102-109 8 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Mixotrophic cultivation of oleaginous *Chlorella* sp. KR-1 mediated by actual coal-fired flue gas for biodiesel production

Praveenkumar, R., Kim, B., Choi, E., Lee, K., Cho, S., Hyun, J. S., Park, J. Y., Lee, Y. C., Lee, H. U., Lee, J. S. & Oh, Y. K., 12 Sep 2014, In : Bioprocess and Biosystems Engineering. 37, 10, p. 2083-2094 12 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography

Rasappa, S., Schulte, L., Borah, D., Morris, M. A. & Ndoni, S., 1 Oct 2014, In : Colloids and Interface Science Communications. 2, p. 1-5 5 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Improved biomass and lipid production in a mixotrophic culture of *Chlorella* sp. KR-1 with addition of coal-fired flue-gas

Praveenkumar, R., Kim, B., Choi, E., Lee, K., Park, J. Y., Lee, J. S., Lee, Y. C. & Oh, Y. K., 1 Nov 2014, In : Bioresource Technology. 171, p. 500-505 6 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Time-resolved fluorescence methods (IUPAC technical report)

Lemmetyinen, H., Tkachenko, N. V., Valeur, B., Hotta, J. I., Ameloot, M., Ernsting, N. P., Gustavsson, T. & Boens, N., 1 Dec 2014, In : Pure and Applied Chemistry. 86, 12, p. 1969-1998 30 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Switchavidin: Reversible biotin-avidin-biotin bridges with high affinity and specificity

Taskinen, B., Zauner, D., Lehtonen, S. I., Koskinen, M., Thomson, C., Kähkönen, N., Kukkurainen, S., Määttä, J. A. E., Ihalainen, T. O., Kulomaa, M. S., Gruber, H. J. & Hytönen, V. P., 17 Dec 2014, In : Bioconjugate Chemistry. 25, 12, p. 2233-2243 11 p.

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Stimuli-responsive photonic polymer coatings

Stumpel, J. E., Broer, D. J. & Schenning, A. P. H. J., 28 Dec 2014, In : Chemical Communications. 50, 100, p. 15839-15848 10 p.

Characterisation of novel regenerated cellulosic, viscose, and cotton fibres and the dyeing properties of fabrics

Kamppuri, T., Vehviläinen, M., Puolakka, A., Honkanen, M., Vippola, M. & Rissanen, M., 2015, In : *Coloration Technology*. 131, 5, p. 396-402 7 p.

Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Coulomb explosion during the early stages of the reaction of alkali metals with water

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Research output: Contribution to journal › Article › Scientific › peer-review

Efficient preparation of shuffled DNA libraries through recombination (Gateway) cloning

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Research output: Contribution to journal › Article › Scientific › peer-review

Enquête de la variabilité cycle-cycle du NO dans la combustion homogène

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Research output: Contribution to journal › Article › Scientific › peer-review

Fungal treatment of landfill mining fine fraction to increase its stability and end-use potential

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Metals removal and recovery in bioelectrochemical systems: A review

Nancharaiah, Y. V., Venkata Mohan, S. & Lens, P. N. L., 2015, In : *Bioresource Technology*. 195, p. 102-114 13 p.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Multifunctional ultrasmall nanoplatfoms for vascular-targeted interstitial photodynamic therapy of brain tumors guided by real-time MRI

Bechet, D., Auger, F., Couleaud, P., Marty, E., Ravasi, L., Durieux, N., Bonnet, C., Plénat, F., Frochot, C., Mordon, S., Tillement, O., Vanderesse, R., Lux, F., Perriat, P., Guillemain, F. & Barberi-Heyob, M., 2015, In : *NANOMEDICINE: NANOTECHNOLOGY BIOLOGY AND MEDICINE*. 11, 3, p. 657-670 14 p.

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Water-responsive dual-coloured photonic polymer coatings based on cholesteric liquid crystals

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A comparison of five optical surface topography measurement methods

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Perfluoro-1,1'-biphenyl and perfluoronaphthalene and their derivatives as π -acceptors for anions

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Research output: Contribution to journal › Article › Scientific › peer-review

Oxidation half-reaction of aqueous nucleosides and nucleotides via photoelectron spectroscopy augmented by ab initio calculations

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Research output: Contribution to journal › Article › Scientific › peer-review

Second-Harmonic Generation from Metal Nanoparticles: Resonance Enhancement versus Particle Geometry

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Research output: Contribution to journal › Article › Scientific › peer-review

Second-harmonic generation imaging of semiconductor nanowires with focused vector beams

Bautista, G., Mäkitalo, J., Chen, Y., Dhaka, V., Grasso, M., Karvonen, L., Jiang, H., Huttunen, M. J., Huhtio, T., Lipsanen, H. & Kauranen, M., 6 Feb 2015, In : Nano Letters. 15, 3, p. 1564-1569 6 p.

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Fluidized-bed denitrification of mining water tolerates high nickel concentrations

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Multi-stable dynamics of the non-adiabatic repressilator

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Workplace performance of a loose-fitting powered air purifying respirator during nanoparticle synthesis

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'miSimBa' - A simulator of synthetic time-lapsed microscopy images of bacterial cells

Martins, L., Fonseca, J. & Ribeiro, A., 17 Apr 2015, *Proceedings - 2015 IEEE 4th Portuguese Meeting on Bioengineering, ENBENG 2015*. The Institute of Electrical and Electronics Engineers, Inc., 7088854

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Biomimetic collagen I and IV double layer Langmuir-Schaefer films as microenvironment for human pluripotent stem cell derived retinal pigment epithelial cells

Sorkio, A. E., Vuorimaa-Laukkanen, E. P., Hakola, H. M., Liang, H., Ujula, T. A., Valle-Delgado, J. J., Österberg, M., Yliperttula, M. L. & Skottman, H., 1 May 2015, In : Biomaterials. 51, p. 257-269 13 p.

Research output: Contribution to journal › Article › Scientific › peer-review

A facile route to synthesis of S-doped TiO₂ nanoparticles for photocatalytic activity

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Catalytic effect of Ca and K on CO₂ gasification of spruce wood char

Perander, M., DeMartini, N., Brink, A., Kramb, J., Karlström, O., Hemming, J., Moilanen, A., Konttinen, J. & Hupa, M., 15 Jun 2015, In : Fuel. 150, p. 464-472 9 p.

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The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts

Massera, J., Kokkari, A., Närhi, T. & Hupa, L., 25 Jun 2015, In : Journal of Materials Science: Materials in Medicine. 26, 6, 196.

Research output: Contribution to journal › Article › Scientific › peer-review

Lipid production by eukaryotic microorganisms isolated from palm oil mill effluent

Marjakangas, J. M., Lakaniemi, A. M., Koskinen, P. E. P., Chang, J. S. & Puhakka, J. A., 5 Jul 2015, In : Biochemical Engineering Journal. 99, p. 48-54 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Lithography-free oxide patterns as templates for self-catalyzed growth of highly uniform GaAs nanowires on Si(111)

Hakkarainen, T. V., Schramm, A., Mäkelä, J., Laukkanen, P. & Guina, M., 18 Jul 2015, In : Nanotechnology. 26, 27, 275301.

Research output: Contribution to journal > Article > Scientific > peer-review

Electricity production by a microbial fuel cell fueled by brewery wastewater and the factors in its membrane deterioration

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Research output: Contribution to journal > Article > Scientific > peer-review

High quality sub-10 nm graphene nanoribbons by on-chip PS-b-PDMS block copolymer lithography

Rasappa, S., Caridad, J. M., Schulte, L., Cagliani, A., Borah, D., Morris, M. A., Bøggild, P. & Ndoni, S., 29 Jul 2015, In : RSC Advances. 5, 82, p. 66711-66717 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Evaluation of crushing strength of spray-dried MgAl₂O₄ granule beds

Kanerva, U., Suhonen, T., Lagerbom, J. & Levänen, E., 1 Aug 2015, In : Ceramics International. 41, 7, p. 8494-8500 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Sol-gel synthesis of quaternary (P₂O₅)₅₅-(CaO)₂₅-(Na₂O)_(20-x)-(TiO₂)_x bioresorbable glasses for bone tissue engineering applications (x = 0, 5, 10, or 15)

Foroutan, F., Walters, N. J., Owens, G. J., Mordan, N. J., Kim, H. W., de Leeuw, N. H. & Knowles, J. C., 1 Aug 2015, In : Biomedical materials (Bristol, England). 10, 4, p. 45025 1 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Influence of relative humidity and physical load during storage on dustiness of inorganic nanomaterials: implications for testing and risk assessment

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Research output: Contribution to journal > Article > Scientific > peer-review

Enhanced photoactive and photoelectrochemical properties of TiO₂ sol-gel coated steel by the application of SiO₂ intermediate layer

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Research output: Contribution to journal > Article > Scientific > peer-review

Searching for a robust strategy for minimizing alkali chlorides in fluidized bed boilers during burning of high SRF-energy-share fuel

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Research output: Contribution to journal > Article > Scientific > peer-review

Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells

Sorkio, A., Porter, P. J., Juuti-Uusitalo, K., Meenan, B. J., Skottman, H. & Burke, G. A., 1 Sep 2015, In : Tissue Engineering Part A. 21, 17-18, p. 2301-2314 14 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Effects of anode potentials on bioelectrogenic conversion of xylose and microbial community compositions

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Research output: Contribution to journal > Article > Scientific > peer-review

Molecular Design of Light-Responsive Hydrogels, for in Situ Generation of Fast and Reversible Valves for Microfluidic Applications

Ter Schiphorst, J., Coleman, S., Stumpel, J. E., Ben Azouz, A., Diamond, D. & Schenning, A. P. H. J., 8 Sep 2015, In : *Chemistry of Materials*. 27, 17, p. 5925-5931 7 p.

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Cultivation of Nannochloropsis for eicosapentaenoic acid production in wastewaters of pulp and paper industry

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Research output: Contribution to journal > Article > Scientific > peer-review

Submolecular Plasticization Induced by Photons in Azobenzene Materials

Vapaavuori, J., Laventure, A., Bazuin, C. G., Lebel, O. & Pellerin, C., 28 Oct 2015, In : *Journal of the American Chemical Society*. 137, 42, p. 13510-13517 8 p.

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Comparison of different cationized proteins as biomaterials for nanoparticle-based ocular gene delivery

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Research output: Contribution to journal > Article > Scientific > peer-review

Effect of rubber polarity on selective wetting of carbon nanotubes in ternary blends

Le, H. H., Parsaker, M., Sriharish, M. N., Henning, S., Menzel, M., Wießner, S., Das, A., Do, Q. K., Heinrich, G. & Radosch, H. J., 1 Nov 2015, In : *Express Polymer Letters*. 9, 11, p. 960-971 12 p.

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Simultaneous nutrient removal and lipid production with *Chlorella vulgaris* on sterilized and non-sterilized anaerobically pretreated piggery wastewater

Marjakangas, J. M., Chen, C. Y., Lakaniemi, A. M., Puhakka, J. A., Whang, L. M. & Chang, J. S., 5 Nov 2015, In : *Biochemical Engineering Journal*. 103, p. 177-184 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Tri-functionality of Fe₃O₄-embedded carbon microparticles in microalgae harvesting

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Research output: Contribution to journal > Article > Scientific > peer-review

Graphene-intercalated Fe₂O₃/TiO₂ heterojunctions for efficient photoelectrolysis of water

Kaouk, A., Ruoko, T. P., Gönüllü, Y., Kaunisto, K., Mettenböcker, A., Gurevich, E., Lemmetyinen, H., Ostendorf, A. & Mathur, S., 13 Nov 2015, In : *RSC Advances*. 5, 123, p. 101401-101407 7 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Polypyrrole coating on poly-(lactide/glycolide)-β-tricalcium phosphate screws enhances new bone formation in rabbits

Zhao, M. D., Björninen, M., Cao, L., Wang, H. R., Pelto, J., Li, X. Q., Hyttinen, J., Jiang, Y. Q., Kellomäki, M., Miettinen, S., Sándor, G. K., Seppänen, R., Haimi, S. & Dong, J., 27 Nov 2015, In : *Biomedical Materials*. 10, 6, 065016.

Research output: Contribution to journal > Article > Scientific > peer-review

Modeling carbon dioxide transport in PDMS-based microfluidic cell culture devices

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The formation and physical properties of the particle emissions from a natural gas engine

Alanen, J., Saukko, E., Lehtoranta, K., Murtonen, T., Timonen, H., Hillamo, R., Karjalainen, P., Kuuluvainen, H., Harra, J., Keskinen, J. & Rönkkö, T., 15 Dec 2015, In : *Fuel*. 162, p. 155-161 7 p.

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Accelerated deactivation studies of the natural-gas oxidation catalyst-Verifying the role of sulfur and elevated temperature in catalyst aging

Honkanen, M., Kärkkäinen, M., Kolli, T., Heikkinen, O., Viitanen, V., Zeng, L., Jiang, H., Kallinen, K., Huuhtanen, M., Keiski, R. L., Lahtinen, J., Olsson, E. & Vippola, M., 2016, In : *Applied Catalysis B-Environmental*. p. 439-448 10 p.

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A novel generic algorithm for robust physiological signal classification

Mahdiani, S., Vanhala, J. & Viik, J., 2016, *XIV Mediterranean Conference on Medical and Biological Engineering and Computing 2016: MEDICON 2016, March 31st–April 2nd 2016, Paphos, Cyprus*. Springer Verlag, p. 1038-1043 6 p. (IFMBE Proceedings; vol. 57).

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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A tool for geometrical measurements of orthognathic surgery changes using cone beam computed tomography

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Biological and Bioelectrochemical Recovery of Critical and Scarce Metals

Nancharaiah, Y. V., Mohan, S. V. & Lens, P. N. L., 2016, In : *Trends in Biotechnology*. 34, 2, p. 137-155 19 p.

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Cell-wall disruption and lipid/astaxanthin extraction from microalgae: *Chlorella* and *Haematococcus*

Kim, D. Y., Vijayan, D., Praveenkumar, R., Han, J. I., Lee, K., Park, J. Y., Chang, W. S., Lee, J. S. & Oh, Y. K., 2016, In : *Bioresource Technology*. 199, p. 300-310

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Composites of high-temperature thermomechanical pulps and polylactic acid

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Research output: Contribution to journal › Article › Scientific › peer-review

Decoding the Morphological Diversity in Two Dimensional Crystalline Porous Polymers by Core Planarity Modulation

Halder, A., Kandambeth, S., Biswal, B. P., Kaur, G., Roy, N. C., Addicoat, M., Salunke, J. K., Banerjee, S., Vanka, K., Heine, T., Verma, S. & Banerjee, R., 2016, In : *Angewandte Chemie (International Edition)*. 55, 27, p. 7806-7810 5 p.

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Enhanced adsorption of orthophosphate and copper onto hydrochar derived from sewage sludge by KOH activation

Spataru, A., Jain, R., Chung, J. W., Gerner, G., Krebs, R. & Lens, P. N. L., 2016, In : *RSC Advances*. 6, 104, p. 101827-101834 8 p.

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Fire-safe and environmentally friendly nanocomposites based on layered double hydroxides and ethylene propylene diene elastomer

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Functional model for organisational and safety culture

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High-Yield Excited Triplet States in Pentacene Self-Assembled Monolayers on Gold Nanoparticles through Singlet Exciton Fission

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Research output: Contribution to journal > Article > Scientific > peer-review

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Exhaust emissions of non-road mobile machine: Real-world and laboratory studies with diesel and HVO fuels

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A case study of focal bayesian EEG inversion for whitney element source spaces: Mesh-based vs. cartesian orientations

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Addressing closed-chain dynamics for high-precision control of hydraulic cylinder actuated manipulators

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Adsorption of furfural from torrefaction condensate using torrefied biomass

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A neural network strategy for learning of nonlinearities toward feed-forward control of pressure-compensated hydraulic valves with a significant dead zone

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Artificial eye blink pacemaker - A first investigation into the blink production using constant-interval electrical stimulation
Lylykangas, J., Ilves, M., Venesvirta, H., Rantanen, V., Mäkelä, E., Vehkaoja, A., Verho, J., Lekkala, J., Rautiainen, M. & Surakka, V., 2018, *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag, p. 522-525 4 p. (IFMBE Proceedings; vol. 65).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

A strategy for dissecting the kinetics of transcription repression mechanisms

Palma, C. S. D., Startceva, S., Neeli-Venkata, R., Zare, M., Goncalves, N. S. M., Fonseca, J. M., Oliveira, S. M. D. & Ribeiro, A. S., 2018, *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag, p. 1097-1100 4 p. (IFMBE Proceedings; vol. 65).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Atrial fibrillation detection from wrist photoplethysmography data using artificial neural networks

Rezaei Yousefi, Z., Parak, J., Tarniceriu, A., Harju, J., Yli-Hankala, A., Korhonen, I. & Vehkaoja, A., 2018, *World Congress on Medical Physics and Biomedical Engineering 2018*. Springer, Vol. 2. p. 399-404 6 p. (IFMBE Proceedings; vol. 68).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Automated pipeline for brain ROI analysis with results comparable to previous freehand measures in clinical settings

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Auto-regression-driven, reallocation particle filtering approaches in PPG-based respiration rate estimation

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Bilateral teleoperation of a hydraulic robotic manipulator in contact with physical and virtual constraints

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases

Ojansivu, M., Wang, X., Hyväri, L., Kellomäki, M., Hupa, L., Vanhatupa, S. & Miettinen, S., 2018, In : *European Cells and Materials*. 35, p. 53-71 19 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Characterization of chloride channels in human embryonic stem cell derived retinal pigment epithelium

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Comparison of linear and non-linear heart rate variability indices between preterm infants at their theoretical term age and full term newborns

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Composition and role of the attached and planktonic microbial communities in mesophilic and thermophilic xylose-fed microbial fuel cells

Dessi, P., Porca, E., Haavisto, J., Lakaniemi, A-M., Collins, G. & Lens, P. N. L., 2018, In : RSC Advances. 8, 6, p. 3069-3080 12 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Computational model for multifocal imaging in optical projection tomography and numerical analysis of all-in-focus fusion in tomographic image reconstruction

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Conjugated Heat Transfer Simulation of a Fin-and-Tube Heat Exchanger

Välikangas, T. & Karvinen, R., 2018, In : Heat Transfer Engineering. 39, 13-14, p. 1192-1200 9 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Connectivity analysis of full montage EEG in traumatic brain injury patients in the ICU

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Coronary artery disease diagnosis by means of heart rate variability analysis using respiratory information

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Correlation of depth of anesthesia indexes with MAC in volatile anesthesia

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Decomposition of persistent luminescent microparticles in corrosive phosphate glass melt

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Direct position control of electro-hydraulic excavator

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Dry electrode sizes in recording ECG and heart rate in wearable applications

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Effect of driver and work cycle on losses of a loader

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Effect of N/S ratio on anoxic thiosulfate oxidation in a fluidized bed reactor: Experimental and artificial neural network model analysis

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Efficient photon upconversion at remarkably low annihilator concentrations in a liquid polymer matrix: when less is more

Durandin, N. A., Isokuortti, J., Efimov, A., Vuorimaa-Laukkanen, E., Tkachenko, N. V. & Laaksonen, T., 2018, In : *Chemical Communications*. 54, 99, p. 14029-14032 4 p.

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Evaluating different shapes of cranial fixation mini-plates using finite element method

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Evaluation of the accuracy and reliability for photoplethysmography based heart rate and beat-to-beat detection during daily activities

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Fin-and-tube heat exchanger enhancement with a combined herringbone and vortex generator design

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Floating frame of reference formulation for a flexible manipulator with hydraulic actuation - Modelling and experimental validation

Mäkinen, P., Dmitrochenko, O. & Mattila, J., 2018, *BATH/ASME 2018 Symposium on Fluid Power and Motion Control, FPMC 2018*. ASME

High resolution E-jet printed temperature sensor on artificial skin

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Identification of feasible pathway information for c-di-GMP binding proteins in cellulose production

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Impacts of laminin and polyethyleneimine surface coatings on morphology of differentiating human SH-SY5Y cells and networks

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Learned vs. hand-designed features for ECG beat classification: A comprehensive study

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Linearity of simultaneously recorded impedance pneumography and direct pneumotachography in thoracic surgery patients

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Low-latency EMG onset and termination detection for facial pacing

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Model-based control of a digital hydraulic transformer-based hybrid actuator

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Nocturnal use of light compression garments and recovery

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Nonlinear dynamics of heart rate variability in children with asthmatic symptoms

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Nonlinear local projection filter for impedance pneumography

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Optical projection tomography imaging of single cells in 3D gellan gum hydrogel

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Optimization of ^{99m}Tc -sestamibi/ ^{123}I subtraction SPECT/CT protocol for parathyroid scintigraphy

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Pathvalue: Pathways with value

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Performance analysis of novel flexible electrodes for wearable ECG/heart rate monitoring

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Predicting gene expression levels from histone modification signals with convolutional recurrent neural networks

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Regeneration of sulfur-poisoned Pd-based catalyst for natural gas oxidation

Honkanen, M., Wang, J., Kärkkäinen, M., Huuhtanen, M., Jiang, H., Kallinen, K., Keiski, R. L., Akola, J. & Vippola, M., 2018, In : *Journal of Catalysis*. 358, p. 253-265 13 p.

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Reproducible preparation method of hydrogels for cell culture applications – Case study with spermidine crosslinked gellan gum

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Stimulation waveform selection to suppress functional electrical stimulation artifact from surface EMG signals

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Temperature effect on the baseline noise in MEA measurements

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Texture-property relations of bioamine crosslinked gellan gum hydrogels

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Time characteristics of prolonged partial obstruction periods using an Emfit mattress

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Twelve years follow-up of ballistocardiography

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Wearable RFID perspiration sensor tags for well-being applications – From laboratory to field use

Mulholland, K., Virkki, J., Raunonen, P. & Merilampi, S., 2018, *EMBEC and NBC 2017 - Joint Conference of the European Medical and Biological Engineering Conference EMBEC 2017 and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics, NBC 2017*. Springer Verlag, p. 1012-1015 4 p. (IFMBE Proceedings; vol. 65).

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Upconversion from fluorophosphate glasses prepared with NaYF₄:Er³⁺, Yb³⁺ nanocrystals

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Research output: Contribution to journal > Article > Scientific > peer-review

Design, synthesis, and structure-property relationships of Er³⁺-doped TiO₂ luminescent particles synthesized by sol-gel

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Improved fatty aldehyde and wax ester production by overexpression of fatty acyl-CoA reductases

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Improved Stability of Atomic Layer Deposited Amorphous TiO₂ Photoelectrode Coatings by Thermally Induced Oxygen Defects

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Soft hydrazone crosslinked hyaluronan- and alginate-based hydrogels as 3D supportive matrices for human pluripotent stem cell-derived neuronal cells

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Aqueous synthesis of Z-scheme photocatalyst powders and thin-film photoanodes from earth abundant elements

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Non-intersecting leaf insertion algorithm for tree structure models

Åkerblom, M., Raunonen, P., Casella, E., Disney, M. I., Danson, F. M., Gaulton, R., Schofield, L. A. & Kaasalainen, M., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170045.

Research output: Contribution to journal › Article › Scientific › peer-review

Uncertainty in multispectral lidar signals caused by incidence angle effects

Kaasalainen, S., Åkerblom, M., Nevalainen, O., Hakala, T. & Kaasalainen, M., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170033.

Research output: Contribution to journal › Article › Scientific › peer-review

Weighing trees with lasers: Advances, challenges and opportunities

Disney, M. I., Boni Vicari, M., Burt, A., Calders, K., Lewis, S. L., Raunonen, P. & Wilkes, P., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170048.

Research output: Contribution to journal › Article › Scientific › peer-review

Membrane bound COMT isoform is an interfacial enzyme: General mechanism and new drug design paradigm

Magarkar, A., Parkkila, P., Viitala, T., Lajunen, T., Mobarak, E., Licari, G., Cramariuc, O., Vauthey, E., Róg, T. & Bunker, A., 11 Apr 2018, In : *Chemical Communications*. 54, 28, p. 3440-3443 4 p.

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Characteristics of nFOG, an aerosol-based wet thin film coating technique

Harra, J., Tuominen, M., Juuti, P., Rissler, J., Koivuluoto, H., Haapanen, J., Niemelä-Anttonen, H., Stenroos, C., Teisala, H., Lahti, J., Kuusipalo, J., Vuoristo, P. & Mäkelä, J. M., May 2018, In : *Journal of Coatings Technology Research*. 15, 3, p. 623-632 10 p.

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Switchable light reflectance in dilute magneto-optical colloids based on nickel ferrite nanowires

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Research output: Contribution to journal › Article › Scientific › peer-review

Wet etching of dilute nitride GaInNAs, GaInNAsSb, and GaNAsSb alloys lattice-matched to GaAs

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A Ceramide-Regulated Element in the Late Endosomal Protein LAPT4B Controls Amino Acid Transporter Interaction
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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of Co-Adsorbate and Hole Transporting Layer on the Photoinduced Charge Separation at the TiO₂-Phthalocyanine Interface

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Influence of the phosphate glass melt on the corrosion of functional particles occurring during the preparation of glass-ceramics

Ojha, N., Laihinen, T., Salminen, T., Lastusaari, M. & Petit, L., Jun 2018, In : Ceramics International. 44, 10, p. 11807-11811

Research output: Contribution to journal › Article › Scientific › peer-review

The effects of laser patterning 10CeTzP-Al₂O₃ nanocomposite disc surfaces: Osseous differentiation and cellular arrangement in vitro

Goyos-Ball, L., Prado, C., Díaz, R., Fernández, E., Ismailov, A., Kumpulainen, T., Levänen, E., Torrecillas, R. & Fernández, A., Jun 2018, In : Ceramics International. 44, 8, p. 9472-9478

Research output: Contribution to journal › Article › Scientific › peer-review

Effects of wastewater constituents and operational conditions on the composition and dynamics of anodic microbial communities in bioelectrochemical systems

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Research output: Contribution to journal › Review Article › Scientific › peer-review

The effect of carbon and nickel additions on the precursor synthesis of Cr₃C₂-Ni nanopowder

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Effect of surfactant type and sonication energy on the electrical conductivity properties of nanocellulose-CNT nanocomposite films

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Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics

Kulju, S., Riegger, L., Koltay, P., Mattila, K. & Hyvälouma, J., 15 Jul 2018, In : Journal of Colloid and Interface Science. 522, p. 48-56 9 p.

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High Bending-Mode Sensitivity of Printed Piezoelectric Poly(vinylidene fluoride-co-trifluoroethylene) Sensors

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Research output: Contribution to journal › Article › Scientific › peer-review

Selenate removal in biofilm systems: Effect of nitrate and sulfate on selenium removal efficiency, biofilm structure and microbial community

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Novel osteoconductive β -tricalcium phosphate/poly(L-lactide-co- ϵ -caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect

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Tribocorrosion behaviour of aluminium bronze in 3.5 wt.% NaCl solution

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Chromatographic studies of n-Propyl Propionate: Adsorption equilibrium, modelling and uncertainties determination

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High-Yield Generation of Triplet Excited States by an Efficient Sequential Photoinduced Process from Energy Transfer to Singlet Fission in Pentacene-Modified CdSe/ZnS Quantum Dots

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Aminobenzylated 4-Nitrophenols as Antibacterial Agents Obtained from 5-Nitrosalicylaldehyde through a Petasis Borono-Mannich Reaction

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The importance of controlled mismatch of biomechanical compliances of implantable scaffolds and native tissue for articular cartilage regeneration

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Dynamic decoupling of biomass and wax ester biosynthesis in *Acinetobacter baylyi* by an autonomously regulated switch

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Less Is More: Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density

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Characterization of the anisotropic deformation of the right ventricle during open heart surgery

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Deposition of dry particles on a fin-and-tube heat exchanger by a coupled soft-sphere DEM and CFD

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How well can we predict cluster fragmentation inside a mass spectrometer?

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Large-scale efficient water harvesting using bioinspired micro-patterned copper oxide nanoneedle surfaces and guided droplet transport

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Structure and Dynamics of Thermosensitive pDNA Polyplexes Studied by Time-Resolved Fluorescence Spectroscopy

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Synergistic Computational-Experimental Discovery of Highly Selective PtCu Nanocluster Catalysts for Acetylene Semihydrogenation

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The electrical conductivity of human cerebrospinal fluid in vivo

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Kinetics and thermochemistry of the reaction of 3-methylpropargyl radical with molecular oxygen

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Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids

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Mining tailings as raw materials for reaction-sintered aluminosilicate ceramics: Effect of mineralogical composition on microstructure and properties

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Understanding the Role of Lipids in Signaling Through Atomistic and Multiscale Simulations of Cell Membranes

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Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas

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An architectural understanding of natural sway frequencies in trees

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Observation of Coexistence of Yu-Shiba-Rusinov States and Spin-Flip Excitations

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Photochemistry of dithiophosphinate $\text{Ni}(\text{S}_2\text{P}(\text{i-Bu})_2)_2$ complex in CCl_4 . Transient species and TD-DFT calculations

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Characterisation and in vitro and in vivo evaluation of supercritical-CO₂-foamed β -TCP/PLCL composites for bone applications

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Chlorine induced high-temperature corrosion mechanisms in HVOF and HVOF sprayed Cr_3C_2 -based hardmetal coatings

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Influence of ions to modulate hydrazone and oxime reaction kinetics to obtain dynamically cross-linked hyaluronic acid hydrogels

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Effects of anode materials on electricity production from xylose and treatability of TMP wastewater in an up-flow microbial fuel cell

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