

Estimation of the largest expected photovoltaic power ramp rates

Lappalainen, K., Wang, G. C. & Kleissl, J., 15 Nov 2020, In : Applied Energy. 278, 13 p., 115636.

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

Tribocorrosion behaviour of tin bronze CuSn12 under a sliding motion in NaCl containing environment: Contact to inert vs. reactive counterbody

Huttunen-Saarivirta, E., Kilpi, L., Pasanen, A. T., Salminen, T. & Ronkainen, H., 1 Nov 2020, In : Tribology International. 151, 106389.

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

Soft robotic gripper with compliant cell stacks for industrial part handling

Netzev, M., Angleraud, A. & Pieters, R., 1 Oct 2020, In : IEEE Robotics and Automation Letters. 5, 4, p. 6821-6828 8 p.

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

Hot-box measurements to investigate the internal convection of highly insulated loose-fill insulation roof structures

Kivioja, H. & Vinha, J., 1 Jun 2020, In : Energy and Buildings. 216, 10 p., 109934.

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

Transparent microelectrode arrays fabricated by ion beam assisted deposition for neuronal cell in vitro recordings

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

Hyperspectral phase imaging based on denoising in complex-valued eigensubspace

Shevkunov, I., Katkovnik, V., Claus, D., Pedrini, G., Petrov, N. V. & Egiazarian, K., 1 Apr 2020, In : Optics and Lasers in Engineering. 127, 10 p., 105973.

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

Circular dichroism in the second harmonic field evidenced by asymmetric Au coated GaAs nanowires

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Syndecan-4 tunes cell mechanics by activating the kindlin-integrin-RhoA pathway

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Viewpoint: Pavlovian Materials—Functional Biomimetics Inspired by Classical Conditioning

Zhang, H., Zeng, H., Priimägi, A. & Ikkala, O., 2020, In : Advanced Materials. 9 p., 1906619.

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

Asymptotics and approximation of large systems of ordinary differential equations

Paunonen, L. & Seifert, D., 2020, In : Systems and Control Letters. 140, 9 p., 104703.

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

Avoiding the high friction peak in fretting contact

Juoksukangas, J., Hintikka, J., Lehtovaara, A., Mäntylä, A., Vaara, J. & Frondelius, T., 2020, In : Rakenteiden Mekaniikka. 53, 1, p. 12-19 8 p.

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

Käyräviivaiset koordinaatitot kontinuumimekaniikassa

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

FEM-based wear simulation for fretting contacts

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Assessment of pitting corrosion in bare and passivated (wet scCO₂-induced patination and chemical passivation) hot-dip galvanized steel samples with SVET, FTIR, and SEM (EDS)

Saarimaa, V., Fuertes, N., Persson, D., Zavalis, T., Kaleva, A., Nikkanen, J-P., Levänen, E. & Heydari, G., 2020, In : Materials and Corrosion. 10 p.

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

An exploratory study on strengthening and thermal stability of magnetron sputtered W nanoparticles at the interface of Cu/Ni multilayer films

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Phosphate/oxyfluorophosphate glass crystallization and its impact on dissolution and cytotoxicity

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CFD modeling the diffusional losses of nanocluster-sized particles and condensing vapors in 90° bends of circular tubes

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Conductivity control via minimally invasive anti-Frenkel defects in a functional oxide

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Low temperature afterglow from SrAl₂O₄: Eu, Dy, B containing glass

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Probabilistic approach to physical object disentangling

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Multi-sensor next-best-view planning as matroid-constrained submodular maximization

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ILC1 drive intestinal epithelial and matrix remodelling

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Potential of renewable fuel to reduce diesel exhaust particle emissions

Pirjola, L., Kuuluvainen, H., Timonen, H., Saarikoski, S., Teinilä, K., Salo, L., Datta, A., Simonen, P., Karjalainen, P., Kulmala, K. & Rönkkö, T., 15 Nov 2019, In : Applied Energy. 254, 113636.

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Prediction of contact condition and surface damage by simulating variable friction coefficient and wear

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

Running-in in fretting, transition from near-stable friction regime to gross sliding

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

Tribocorrosion behaviour of two low-alloy steel grades in simulated waste solution

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Vehicle type detection and passenger satisfaction analysis using smartphone sensors and digital surveys

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Multiresonant High-Q Plasmonic Metasurfaces

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Shedding frequency in cavitation erosion evolution tracking

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Detection of gaseous species during KCl-induced high-temperature corrosion by the means of CPFAAS and CI-API-TOF

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Pneumatic unidirectional cell stretching device for mechanobiological studies of cardiomyocytes

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

Fluorine losses in Er³⁺ oxyfluoride phosphate glasses and glass-ceramics

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Elevated and cryogenic temperature micropillar compression of magnesium–niobium multilayer films

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

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Characterization of cracks formed in large flat-on-flat fretting contact

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

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

The formation and characterization of fretting-induced degradation layers using quenched and tempered steel

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

Stable and unstable friction in fretting contacts

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Evaluating retrofit options in a historical city center: Relevance of bio-based insulation and the need to consider complex urban form in decision-making

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

An Artificial Nocturnal Flower via Humidity-Gated Photoactuation in Liquid Crystal Networks

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Behaviour of leaded tin bronze in simulated seawater in the absence and presence of tribological contact with alumina counterbody: Corrosion, wear and tribocorrosion

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

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Spodumene tailings for porcelain and structural materials: Effect of temperature (1050–1200°C) on the sintering and properties

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Dissolution, bioactivity and osteogenic properties of composites based on polymer and silicate or borosilicate bioactive glass

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

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Icephobicity of Slippery Liquid Infused Porous Surfaces under Multiple Freeze–Thaw and Ice Accretion–Detachment Cycles

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Solvothermal synthesis derived Co-Ga codoped ZnO diluted magnetic degenerated semiconductor nanocrystals

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Enhanced resonant nonlinear absorption and optical limiting in Er³⁺ ions doped multicomponent tellurite glasses

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Computational design of a novel medium-carbon, low-alloy steel microalloyed with niobium

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Investigating the kinetics and biofuel properties of *Alstonia congensis* and *Ceiba pentandra* via torrefaction

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Hydrazone crosslinked hyaluronan-based hydrogels for therapeutic delivery of adipose stem cells to treat corneal defects

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Generic platform for manufacturing execution system functions in knowledge-driven manufacturing systems

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Analysis of common rail pressure signal of dual-fuel large industrial engine for identification of injection duration of pilot diesel injectors

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

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Light Robots: Bridging the Gap between Microrobotics and Photomechanics in Soft Materials

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Erosive-abrasive wear behavior of carbide-free bainitic and boron steels compared in simulated field conditions

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Techno-economic evaluation of integrating torrefaction with anaerobic digestion

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Ultrafast Processing of Hierarchical Nanotexture for a Transparent Superamphiphobic Coating with Extremely Low Roll-Off Angle and High Impalement Pressure

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TOpti: a flexible framework for optimising energy management for various ship machinery topologies

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Global energy consumption due to friction and wear in the mining industry

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

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Statistical analysis of E-jet print parameter effects on Ag-nanoparticle ink droplet size

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Synchronous Full-Field Strain and Temperature Measurement in Tensile Tests at Low, Intermediate and High Strain Rates

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Third Particle Ejection Effects on Wear with Quenched and Tempered Steel Fretting Contact

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Digital hydraulic multi-pressure actuator – the concept, simulation study and first experimental results

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Vapor Phase Fabrication of Nanoheterostructures Based on ZnO for Photoelectrochemical Water Splitting

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

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Improved dimensional stability with bioactive glass fibre skeleton in poly(lactide-co-glycolide) porous scaffolds for tissue engineering

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Fe₂O₃-TiO₂ Nano-heterostructure Photoanodes for Highly Efficient Solar Water Oxidation

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

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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.

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Optimised selection of new protective coatings for biofuel boiler applications

Tuurna, S., Varis, T., Penttilä, K., Ruusuvoori, K., Holmström, S. & Yli-Olli, S., Jul 2011, In : Materials and Corrosion-Werkstoffe und Korrosion. 62, 7, p. 642-649 8 p.

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Hexaferrite/polyethylene Composite coatings prepared with flame spraying

Lisjak, D., Lintunen, P., Hujanen, A., Varis, T., Bolelli, G., Lusvarghi, L., Jagodič, M. & Drogenik, M., 15 Feb 2011, In : Materials Letters. 65, 3, p. 534-536 3 p.

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The effect of phosphorous and arsenic on the fracture behaviour of a 2,25% Cr-1% Mo Steel

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Enablers and barriers of smart data-based asset management services in industrial business networks

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Di Vito, D., Mosallaei, M., Vahed, B. K., Kanerva, M. & Mäntysalo, M., 2020, *Proceedings of XXIV AIMETA Conference 2019*. Carcaterra, A., Graziani, G. & Paolone, A. (eds.). Springer, p. 755-763 9 p. (Lecture Notes in Mechanical Engineering).
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Knowledge-based artificial neural network (KB-ANN) in engineering: Associating functional architecture modeling, dimensional analysis and causal graphs to produce optimized topologies for KB-ANNs

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Research output: Contribution to journal > Special issue > Scientific > peer-review