

The effect of substrate pre-treatment on durability of rubber-stainless steel adhesion

Characteristics of carbide-free medium-carbon bainitic steels in high-stress abrasive wear conditions

Effect of heat-treatment on the upconversion of $\text{NaYF}_4:\text{Yb}^{3+}, \text{Er}^{3+}$ nanocrystals containing silver phosphate glass

Effect of prior austenite grain size on the abrasive wear resistance of ultra-high strength martensitic steels

The C-I \cdots O-N $^+$ Halogen Bonds with Tetraiodoethylene and Aromatic N-Oxides

Analytical and Numerical Methods to Estimate the Effective Mechanical Properties of Rutherford Cables

High-Power 760 nm VECSEL Based on Quantum Dot Gain Mirror

Neural-Network-Based Digital Predistortion for Active Antenna Arrays under Load Modulation

Semantics of HTS AC Loss Modeling
Theories, Models, and Experiments

Design principles for non-reciprocal photomechanical actuation

Selective hydrogen production at Pt(111) investigated by Quantum Monte Carlo methods for metal catalysis

On the alignment of ZnO nanowires by Langmuir – Blodgett technique for sensing application

A study of Cr_3C_2 -based HVOF- and HVOF-sprayed coatings
Abrasion, dry particle erosion and cavitation erosion resistance

Host-Guest Interactions of Sodiumsulfonatomethyleneresorcinarene and Quaternary Ammonium Halides
An Experimental-Computational Analysis of the Guest Inclusion Properties

Structure and in vitro dissolution of Mg and Sr containing borosilicate bioactive glasses for bone tissue engineering

Comparative Analysis of Injection Microdisk Lasers Based on InGaAsN Quantum Wells and InAs/InGaAs Quantum Dots

RFID Ladies
Spotlight on Recent Scientific and Industrial Advances of Women Engineers [Women in Engineering]

Superfluid weight and Berezinskii-Kosterlitz-Thouless transition temperature of twisted bilayer graphene

Plasmon lifetime enhancement in a bright-dark mode coupled system

73-fs SESAM mode-locked Tm,Ho:CNGG laser at 2061 nm

A Database for Storing Magnet Parameters and Analysis of Quench Test Results in HL-LHC Nb_3Sn Short Model Magnets

A membrane external-cavity surface-emitting laser (MECSEL) with emission around 825 nm

Complex-domain sparse imaging in terahertz pulse time-domain holography with balance detection

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

Continuous-wave optical parametric oscillators for mid-infrared spectroscopy

Cracking and Failure Characteristics of Flame Cut Thick Steel Plates

Cyclic quantum walks
Photonic realization and decoherence analysis

Electronic transport in n-type modulation-doped AlGaAs/GaAsBi quantum well structures
Influence of Bi and thermal annealing on electron effective mass and electron mobility

Enhancing thermophilic dark fermentative hydrogen production at high glucose concentrations via bioaugmentation with *Thermotoga neapolitana*

Evaluation of Residual Stresses and Their Influence on Cavitation Erosion Resistance of High Kinetic HVOF and HVOF-Sprayed WC-CoCr Coatings

Fast Switching of Bright Whiteness in Channeled Hydrogel Networks

Influence of powder properties on residual stresses formed in high-pressure liquid fuel HVOF sprayed WC-CoCr coatings

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

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

Propagation dynamics of ultrabroadband terahertz beams with orbital angular momentum for wireless data transfer

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

Time-of-flight secondary ion mass spectrometry study of zinc carbonation in the presence of stable oxygen-18 and deuterium isotopes

Tuneable topological domain wall states in engineered atomic chains

Very sharp diffraction peak in nonglass-forming liquid with the formation of distorted tetraclusters

Effect of tempering on the impact-abrasive and abrasive wear resistance of ultra-high strength steels

First principles prediction of the solar cell efficiency of chalcopyrite materials AgMX₂ (M=In, Al; X=S, Se, Te)

Bursty magnetic friction between polycrystalline thin films with domain walls

Realization of Free-Space Long-Distance Self-Healing Bessel Beams

Analytical computation of the demagnetizing energy of thin-film domain walls

Multiresonant High-Q Plasmonic Metasurfaces

Characterizing the micro-impact fatigue behavior of APS and HVOF-sprayed ceramic coatings

Magnetic non-contact friction from domain wall dynamics actuated by oscillatory mechanical motion

Modelling thermodynamics in a high erature superconducting dipole magnet
An inverse problem based approach

3-D mechanical modeling of 20 T HTS clover leaf end coils - Good practices and lessons learned

Exploration of Two Layer Nb₃Sn Designs of the Future Circular Collider Main Quadrupoles

Erosion wear performance of WC-10Co4Cr and Cr₃C₂-25NiCr coatings sprayed with high-velocity thermal spray processes

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

Pyrolytic behavior of lignocellulosic-based polysaccharides

Epitaxial phases of high Bi content GaSbBi alloys

Role of fracture toughness in impact-abrasion wear

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

Analytical Expressions for Spring Constants of Capillary Bridges and Snap-in Forces of Hydrophobic Surfaces

Correlation of Surface Morphology and Interfacial Adhesive Behavior between Cellulose Surfaces
Quantitative Measurements in Peak-Force Mode with the Colloidal Probe Technique

Bioactive glass ions induce efficient osteogenic differentiation of human adipose stem cells encapsulated in gellan gum and collagen type I hydrogels

Experimenting Waveforms and Efficiency in RF Power Transfer

Energy density-method
An approach for a quick estimation of quench temperatures in high-field accelerator magnets

Multistep Bloch-line-mediated Walker breakdown in ferromagnetic strips

Moiré superlattices and 2D electronic properties of graphite/MoS₂ heterostructures

Spin filtering in silicene by edges and chemically or electrically induced interfaces

Comparison of various high-stress wear conditions and wear performance of martensitic steels

Complex Behavior of Phosphatidylcholine-Phosphatidic Acid Bilayers and Monolayers
Effect of Acyl Chain Unsaturation

Engineering of Chern insulators and circuits of topological edge states

Analysis of GaAsBi growth regimes in high resolution with respect to As/Ga ratio using stationary MBE growth

Fundamental gaps of quantum dots on the cheap

Ultrahigh-pressure form of Si O₂ glass with dense pyrite-type crystalline homology

A Fast Quench Protection System for High-Temperature Superconducting Magnets

Characterization of Powder-Precursor HVOF-Sprayed Al₂O₃-YSZ/ZrO₂ Coatings

1.3μm U-bend traveling wave SOA devices for high efficiency coupling to silicon photonics

1.55-μm wavelength wafer-fused OP-VECSELs in flip-chip configuration

405-nm pumped Ce³⁺-doped silica fiber for broadband fluorescence from cyan to red

Benchmarking of several disparity estimation algorithms for light field processing

Combined experimental and theoretical study of acetylene semi-hydrogenation over Pd/Al₂O₃

Continuum approach to high-cycle fatigue. The finite life-time case with stochastic stress history

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

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

MECSELs with direct emission in the 760 nm to 810 nm spectral range
A single- and double-side pumping comparison and high-power continuous-wave operation

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

Observation of local electroluminescent cooling and identifying the remaining challenges

Process Parameter Impact on Suspension-HVOF-Sprayed Cr₂O₃ Coatings

Role of Steel Plate Thickness on the Residual Stress Formation and Cracking Behavior During Flame Cutting

Short-range supercontinuum based lidar for combustion diagnostics

Single exposure lensless subpixel phase imaging

Switchable unidirectional second-harmonic emission through GaAs nanoantennas

Tailoring directional scattering of second-harmonic generation from (111)-GaAs nanoantennas

Reversible photodoping of TiO₂ nanoparticles

Less Is More

Enhancement of Second-Harmonic Generation from Metasurfaces by Reduced Nanoparticle Density

ICED - Inductively Coupled Energy Dissipater for Future High Field Accelerator Magnets

Optical properties of GaAs_{1-x}Bi_x/GaAs quantum well structures grown by molecular beam epitaxy on (100) and (311)B GaAs substrates

High-Reynolds-number turbulent cavity flow using the lattice Boltzmann method

Structural Similarity Index with Predictability of Image Blocks

Dilute nitride triple junction solar cells for space applications
Progress towards highest AM0 efficiency

Experimental and numerical study of wall layer development in a tribocharged fluidized bed

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

Near-threshold high spin amplification in a 1300 nm GaInNAs spin laser

A new method to optimize natural convection heat sinks

Exciton localization and structural disorder of GaAs_{1-x}Bi_x/GaAs quantum wells grown by molecular beam epitaxy on (311)B GaAs substrates

Mechanical stress analysis during a quench in CLIQ protected 16 T dipole magnets designed for the future circular collider

Evaluation of screen printed silver trace performance and long-term reliability against environmental stress on a low surface energy substrate

Persistent luminescent borosilicate glasses using direct particles doping method

Progress on HL-LHC Nb₃Sn Magnets

Investigation of REBCO Roebel Cable Irreversible Critical Current Degradation Under Transverse Pressure

Towards REBCO 20T+ Dipoles for Accelerators

Morphology evolution of PS-b-PDMS block copolymer and its hierarchical directed self-assembly on block copolymer templates

Inoculum pretreatment differentially affects the active microbial community performing mesophilic and thermophilic dark fermentation of xylose

A study of electric transport in n- and p-type modulation-doped GaInNAs/GaAs quantum well structures under a high electric field

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

Powering of an HTS dipole insert-magnet operated standalone in helium gas between 5 and 85 K

Effect of nozzle geometry on the microstructure and properties of hvaf-sprayed wc-10co4cr and cr3c2-25nicr coatings

Optimization of an E3SPreSSO Energy-Extraction System for High-Field Superconducting Magnets

Photo-Acoustic Spectroscopy Reveals Extrinsic Optical Chirality in GaAs-Based Nanowires Partially Covered with Gold

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

The EuCARD2 Future Magnets Program for particle accelerator high field dipoles
review of results and next steps

Properties of HVOF-sprayed Stellite-6 coatings

Improving the high temperature abrasion resistance of thermally sprayed Cr₃C₂-NiCr coatings by WC addition

Resonant Absorption in GaAs-Based Nanowires by Means of Photo-Acoustic Spectroscopy

Controlled Growth of Supported ZnO Inverted Nanopyramids with Downward Pointing Tips

Multiwavelength surface contouring from phase-coded diffraction patterns

Ultra-large mode area single frequency anisotropic MOPA with double clad Yb-doped tapered fiber

10 kA Joints for HTS Roebel Cables

Action recognition using the 3D dense microblock difference

Better understanding of the role of SiO_2 , P_2O_5 and Al_2O_3 on the spectroscopic properties of Yb^{3+} doped silica sol-gel glasses

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

Convenient extraction method for quantification of thin zinc patina layers

Design of a Nb₃Sn 400 T/m quadrupole for the Future Circular Collider

Effect of Morphology and Crystal Structure on the Thermal Conductivity of Titania Nanotubes

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

Highly-efficient Ho:KY(WO₄)₂ thin-disk lasers at 2.06 μm

Integrated multi-wavelength mid-IR light source for gas sensing

Magnetic and mechanical design of a 16 T common coil dipole for FCC

Modification of epoxy resin by silane-coupling agent to improve tensile properties of viscose fabric composites

Novel Online Diagnostic Analysis for In-Flight Particle Properties in Cold Spraying

Open Material Property Library With Native Simulation Tool Integrations - MASTO

Thermophilic versus mesophilic dark fermentation in xylose-fed fluidised bed reactors
Biohydrogen production and active microbial community

Tribology of FeVCrC coatings deposited by HVOF and HVOF thermal spray processes

Supercritical carbon dioxide treatment of hot dip galvanized steel as a surface treatment before coating

Infrared Thermography as a Non-destructive Testing Solution for Thermal Spray Metal Coatings

Erosive wear of filled vinylester composites in water and acidic media at elevated temperature

Crystallization of supercooled liquid antimony
A density functional study

Effect of hydraulic retention time on continuous electricity production from xylose in up-flow microbial fuel cell

Antennas and antenna-electronics interfaces made of conductive yarn and paint for cost-effective wearable RFIDs and sensors

Inkjet-printed antenna-electronics interconnections in passive UHF RFID tags

Fluorimetric oxygen sensor with an efficient optical read-out for in vitro cell models

Upconversion in low rare-earth concentrated phosphate glasses using direct NaYF₄ Er³⁺, Yb³⁺ nanoparticles doping

Controllable quantum scars in semiconductor quantum dots

Systematic analysis of coating-substrate interactions in the presence of flow localization

Wear of cemented tungsten carbide percussive drill-bit inserts
Laboratory and field study

A Study of Cr₃C₂-Based HVOF- and HVOF-Sprayed Coatings
Microstructure and Carbide Retention

Nonlinear continuous-wave optical propagation in nematic liquid crystals
Interplay between reorientational and thermal effects

Considerations on a Cost Model for High-Field Dipole Arc Magnets for FCC

First Cold Powering Test of REBCO Roebel Wound Coil for the EuCARD2 Future Magnet Development Project

Mechanical Effects of the Nonuniform Current Distribution on HTS Coils for Accelerators Wound With REBCO Roebel Cable

Quench Protection Study of the Eurocircol 16 T cosθ Dipole for the Future Circular Collider (FCC)

Suitability of Different Quench Protection Methods for a 16 T Block-Type Nb₃Sn Accelerator Dipole Magnet

The 16 T Dipole Development Program for FCC

Nematicon-enhanced spontaneous symmetry breaking

Quench absorption coils
A quench protection concept for high-field superconducting accelerator magnets

High-order regularization in lattice-Boltzmann equations

Effect of the addition of Al₂O₃, TiO₂ and ZnO on the thermal, structural and luminescence properties of Er³⁺-doped phosphate glasses

Investigation of the structural anisotropy in a self-assembling glycinate layer on Cu(100) by scanning tunneling microscopy and density functional theory calculations

Electromagnetic nonlinearities in a Roebel-cable-based accelerator magnet prototype
Variational approach

Reference receiver enhanced digital linearization of wideband direct-conversion receivers

Polarization resolved photoluminescence in $\text{GaAs}_{1-x}\text{Bi}_x/\text{GaAs}$ quantum wells

Abrasive-Erosive Wear of Thermally Sprayed Coatings from Experimental and Commercial Cr_3C_2 -Based Powders

Computational wavelength resolution for in-line lensless holography
Phase-coded diffraction patterns and wavefront group-sparsity

DoA Estimation Using Compact CRLH Leaky-Wave Antennas
Novel Algorithms and Measured Performance

Dynamic laser speckle metrology with binarization of speckle patterns

Evaluation of long-term post process inactivation of bioleaching microorganisms

HVOF- and HVOF-Sprayed Cr_3C_2 -NiCr Coatings Deposited from Feedstock Powders of Spherical Morphology
Microstructure Formation and High-Stress Abrasive Wear Resistance Up to 800 °C

Load capacity of lubricated bismuth bronze bimetal bearing under elliptical sliding motion

Mechanical behavior of a 16 T FCC dipole magnet during a quench

Non-destructive and wireless monitoring of biodegradable polymers

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

Optimization of convectively cooled heat sinks

Picosecond MOPA with ytterbium doped tapered double clad fiber

Sliding wear behaviour of HVOF and HVOF sprayed Cr_3C_2 -based coatings

Solar Irradiation Independent Expression for Photovoltaic Generator Maximum Power Line

Structures and properties of laser-assisted cold-sprayed aluminum coatings

Synthesis, Structural Characterization, Hirshfeld Surface and Antioxidant Activity Analysis of a Novel Organic Cation
Antimonate Complex

The 5th international workshop on numerical modelling of high temperature superconductors

Compression curve analysis and compressive strength measurement of brittle granule beds in lieu of individual granule
measurements

Optimization of HVOF Cr_3C_2 -NiCr coating for increased fatigue performance

The effect of initial microstructure on the final properties of press hardened 22MnB5 steels

Laser angle-resolved photoemission as a probe of initial state k_z dispersion, final-state band gaps, and spin texture of Dirac states in the Bi₂Te₃ topological insulator

Crystallization processes in the phase change material Ge₂Sb₂Te₅
Unbiased density functional/molecular dynamics simulations

Erosion–corrosion resistance of various stainless steel grades in high-temperature sulfuric acid solution

RF measurements to pinpoint defects in inkjet-printed, thermally and mechanically stressed coplanar waveguides

Thermal effects on the Wigner localization and Friedel oscillations in many-electron nanowires

3D micro-nano structured hybrid scaffolds

An investigation into the role of nanofiber coating on viability, proliferation and differentiation of seeded mesenchymal stem cells

Novel oxyfluorophosphate glasses and glass-ceramics

Erosion wear of vinyl ester matrix composites in aqueous and acidic environments at elevated temperatures

Sliding and abrasive wear behaviour of HVOF- and HVAF-sprayed Cr₃C₂-NiCr hardmetal coatings

Restoring Integral Images from Focal Stacks Using Compressed Sensing Techniques

Characterization of High-Velocity Single Particle Impacts on Plasma-Sprayed Ceramic Coatings

Development of MQXF

The Nb₃Sn Low- β Quadrupole for the HiLumi LHC

Effect of incorporation of CdS NPs on performance of PTB7
PCBM organic solar cells

Protection Heater Design Validation for the LARP Magnets Using Thermal Imaging

Quench Protection Study of the Updated MQXF for the LHC Luminosity Upgrade (HiLumi LHC)

Test Results of the LARP Nb₃Sn Quadrupole HQ03a

The Impact of Protection Heater Delays Distribution on the Hotspot Temperature in a High-Field Accelerator Magnet

Microstructure and Sliding Wear Behavior of Fe-Based Coatings Manufactured with HVOF and HVAF Thermal Spray Processes

Tuning electronic properties of graphene heterostructures by amorphous-to-crystalline phase transitions

Optical Projection Tomography Technique for Image Texture and Mass Transport Studies in Hydrogels Based on Gellan Gum

Influence of heat treatment on the abrasive wear resistance of a $\text{Cr}_3\text{C}_2\text{NiCr}$ coating deposited by an ethene-fuelled HVOF spray process

Thermal, structural and optical properties of Er^{3+} doped phosphate glasses containing silver nanoparticles

Diffusion through thin membranes
Modeling across scales

Coordination networks incorporating halogen-bond donor sites and azobenzene groups

3-D Numerical Modeling of AC Losses in Multifilamentary MgB_2 Wires

Status of the Demonstrator Magnets for the EuCARD-2 Future Magnets Project

Insight to Nanoparticle Size Analysis—Novel and Convenient Image Analysis Method Versus Conventional Techniques

Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications

Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method

Decreasing the extremely low-frequency electric field exposure with a Faraday cage during work tasks from a man hoist at a 400 kV substation

Dissolution behavior of the bioactive glass S53P4 when sodium is replaced by potassium, and calcium with magnesium or strontium

Dots-on-the-fly electron beam lithography

Fabrication and characterization of broadband superluminescent diodes for 2 μm wavelength

Heat capacities of crystalline and glassy lithium metaphosphate up to the transition region

High-power 1550 nm tapered DBR lasers fabricated using soft UV-nanoimprint lithography

Hot pen and laser writable photonic polymer films

Integrating III-V, Si, and polymer waveguides for optical interconnects
RAPIDO

Iterative Determination of the Orientation Relationship Between Austenite and Martensite from a Large Amount of Grain Pair Misorientations

Microstructural and abrasion wear characteristics of laser-clad tool steel coatings

Optical fiber amplifier with spectral compression elements for high-power laser pulse generation

Rapid and facile synthesis of graphene oxide quantum dots with good linear and nonlinear optical properties

Simultaneous binary hash and features learning for image retrieval

Site-controlled InAs Quantum Dots for Plasmonics

Thermal desorption of molecular oxygen from SnO₂ (110) surface
Insights from first-principles calculations

Rapid and sensitive detection of norovirus antibodies in human serum with a bilayer interferometry biosensor

3D-Printed Origami Packaging with Inkjet-Printed Antennas for RF Harvesting Sensors

Ambient RF Energy Harvesting from a Two-Way Talk Radio for Flexible Wearable Wireless Sensor Devices Utilizing Inkjet Printing Technologies

An Origami Reconfigurable Axial-Mode Bifilar Helical Antenna

A Novel Dual-Band, Dual-Polarized, Miniaturized and Low-Profile Base Station Antenna

Differential basal-to-apical accessibility of lamin A/C epitopes in the nuclear lamina regulated by changes in cytoskeletal tension

Single-source multibattery solar charger
Case study and implementation issues

Observation of unusual metal-semiconductor interaction and metal-induced gap states at an oxide-semiconductor interface
The case of epitaxial BaO/Ge(100) junction

Comparison of laboratory rolling-sliding wear tests with in-service wear of nodular cast iron rollers against wire ropes

Characterization of thermally aged polyetheretherketone fibres
Mechanical, thermal, rheological and chemical property changes

Erbium-doped borosilicate glasses containing various amounts of P₂O₅ and Al₂O₃
Influence of the silica content on the structure and thermal, physical, optical and luminescence properties

ESD qualification data used as the basis for building electrostatic discharge protected areas

Effect of spraying parameters on the microstructural and corrosion properties of HVAF-sprayed Fe-Cr-Ni-B-C coatings

Unintentional boron contamination of MBE-grown GaInP/AlGaInP quantum wells

Fe₂O₃-TiO₂ nanosystems by a hybrid PE-CVD/ALD approach
controllable synthesis, growth mechanism, and photocatalytic properties

Effects of thinning and heating for TiO₂/AlInP junctions

Parity-time-symmetric solitons in trapped Bose-Einstein condensates and the influence of varying complex potentials
A variational approach

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

Analysis of uncertainties in protection heater delay time measurements and simulations in Nb₃Sn high-field accelerator magnets

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

Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene) poly(styrene sulfonate) films with added graphene

Signal focusing through active transport

Investigation of an entropic stabilizer for the lattice-Boltzmann method

Inverted critical adsorption of polyelectrolytes in confinement

Passive resonance sensor based method for monitoring particle suspensions

Accelerator-quality HTS dipole magnet demonstrator designs for the EuCARD-2 5-T 40-mm clear aperture magnet

Mechanical characterization of fiber ceramics
Effect of temperature

Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned substrates fabricated by nanoimprint lithography

Study of quench protection for the Nb₃Sn low-β quadrupole for the LHC luminosity upgrade (HiLumi-LHC)

Suitability of bundle approximation in AC loss analysis of NbTi wires
Simulations and experiment

Test results of the LARP HQ02b magnet at 1.9 K

The EuCARD-2 future magnets European collaboration for accelerator-quality HTS magnets

Utilizing triangular mesh with MMEV to study hysteresis losses of round superconductors obeying critical state model

Effect of melting state on the thermal shock resistance and thermal conductivity of APS ZrO₂-7.5wt.% Y₂O₃ coatings

Optimization and universality of Brownian search in a basic model of quenched heterogeneous media

A Finite Element Simulation Tool for Predicting Hysteresis Losses in Superconductors Using an H-Oriented Formulation with Cohomology Basis Functions

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

Aging scaled Brownian motion

Erosive wear of various stainless steel grades used as impeller blade materials in high temperature aqueous slurry

The effect of impact conditions on the wear and deformation behavior of wear resistant steels

An integrated "sense-and-communicate" broad-/narrow-band optically controlled reconfigurable antenna for cognitive radio systems

Hot spot temperature in an HTS Coil
Simulations with MIITs and finite element method

Overview of the JET results

Localized surface plasmon resonance in silver nanoparticles
Atomistic first-principles time-dependent density-functional theory calculations

High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K₂SO₄ salt mixture

Tribology of HVOF- and HVOF-sprayed WC-10Co4Cr hardmetal coatings
A comparative assessment

Perfect magnetic mirror and simple perfect absorber in the visible spectrum

Crystal structure of 2-methylpiperazine-1,4-dium bis(hydrogen maleate)

Dynamics of photovoltaic-generator-interfacing voltage-controlled buck power stage

Dynamics of intracranial electroencephalographic recordings from epilepsy patients using univariate and bivariate recurrence networks

Neutralized chimeric avidin binding at a reference biosensor surface

Resolving unoccupied electronic states with laser ARPES in bismuth-based cuprate superconductors

Encapsulation of secondary and tertiary ammonium salts by resorcinarenes and pyrogallarenes
The effect of size and charge concentration

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

A novel fluid-reconfigurable advanced and delayed phase line using inkjet-printed microfluidic composite right/left-handed transmission line

Design, fabrication, and testing of a low AC-loss conduction-cooled cryostat for magnetization loss measurement apparatus

Kinetics of polymer looping with macromolecular crowding
Effects of volume fraction and crowder size

Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas

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

Are coarse-grained models apt to detect protein thermal stability? the case of OPEP force field

State-of-the-art inkjet-printed metal-insulator-metal (MIM) capacitors on silicon substrate

1180nm VECSEL with 50 W output power

A method for predicting DCT-based denoising efficiency for grayscale images corrupted by AWGN and additive spatially correlated noise

A perceptual quality metric for high-definition stereoscopic 3D video

Branched thiophene oligomer/polymer bulk heterojunction organic solar cell

Combining full-reference image visual quality metrics by neural network

Depth map occlusion filling and scene reconstruction using modified exemplar-based inpainting

Dielectric Breakdown Strength of Thermally Sprayed Ceramic Coatings
Effects of Different Test Arrangements

Green (In,Ga,Al)P-GaP light-emitting diodes grown on high-index GaAs surfaces

>8W GaInNAs VECSEL emitting at 615 nm

Influence of the Spray Gun Type on Microstructure and Properties of HVAF Sprayed Fe-Based Corrosion Resistant Coatings

Linear viscoelastic model for different flows based on control theory

Machine learning for adaptive bilateral filtering

Measuring bend losses in large-mode-area fibers

Monolithic GaInNAsSb/GaAs VECSEL emitting at 1550 nm

No-reference visual quality assessment for image inpainting

Optical properties and thermionic emission in solar cells with InAs quantum dots embedded within GaNAs and GaInNAs

Power and wavelength scaling using semiconductor disk laser - bismuth fiber MOPA systems

Preserving natural scene lighting by strobe-lit video

Real-time depth image-based rendering with layered dis-occlusion compensation and aliasing-free composition

Roll-to-roll coating by liquid flame spray nanoparticle deposition

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

Ultrasmall microdisk and microring lasers based on InAs/InGaAs/GaAs quantum dots

Enhancement of RF tag backscatter efficiency with low-power reflection amplifiers

Fabrication and Characterization of Amorphous Alumina-Yttria-Stabilized Zirconia Coatings by Air Plasma Spraying

Effects of composition and microstructure on the abrasive wear performance of quenched wear resistant steels

Julkaisun otsikon käännös: : Effects of composition and microstructure on the abrasive wear performance of quenched wear resistant steels

Intrinsic momentum transport in up-down asymmetric tokamaks

Unveiling and controlling the electronic structure of oxidized semiconductor surfaces: Crystalline oxidized InSb(100)(1 × 2)-O

Crystalline oxidized InSb(100)(1 × 2)-O

Julkaisun otsikon käännös: : Unveiling and controlling the electronic structure of oxidized semiconductor surfaces:

Crystalline oxidized InSb(100)(1 × 2)-O

Performance testing of iron based thermally sprayed HVOF coatings in a biomass-fired fluidised bed boiler

Hydration of the chloride ion in concentrated aqueous solutions using neutron scattering and molecular dynamics

Damage mechanisms and cracking behavior of thermal sprayed WC-CoCr coating under scratch testing

Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile *Caloramator celer*

Kinetic, metabolic and transcription analyses

Julkaisun otsikon käännös: : Inhibitory effects of substrate and soluble end products on biohydrogen production of the alkalithermophile *Caloramator celer*: Kinetic, metabolic and transcription analyses

Azopolymer-based micro- and nanopatterning for photonic applications

Investigating the metallic behavior of Na clusters using site-specific polarizabilities

Design and simulation of optically controlled field effect transistors

Spin-on-dopant phosphorus diffusion in germanium thin films for near-infrared detectors

A conformal/rollable monolithic miniaturized ultra-portable ground penetrating radar using additive and inkjet printing

A full-potential linearized augmented plane wave study of the interaction of CO₂ with α -Pu (020) surface nanolayers

A hand-held immaterial volumetric display

An enhanced-range RFID tag using an ambient energy powered reflection amplifier

An inkjet-printed flexible broadband coupler in substrate integrated waveguide (SIW) technology for sensing, RFID and communication applications

A novel reconfigurable origami accordion antenna

Compressive strain measurement using RFID patch antenna sensors

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

Formation mechanisms, structure, and properties of HVOF-sprayed WC-CoCr coatings
An approach toward process maps

Fully inkjet-printed multilayer microstrip and T-resonator structures for the RF characterization of printable materials and interconnects

Harvesting wireless signals from two-way talk-radios to power smart meters and displays

Inkjet-printed, vertically-integrated, high-performance inductors and transformers on flexible LCP substrate

Mode coupling in few-mode large-mode-area fibers

Optical and topographic changes in water-responsive patterned cholesteric liquid crystalline polymer coatings

Pulsed high-power yellow-orange VECSEL
Julkaisun otsikon käännös: : Pulsed high-power yellow-orange VECSEL

Reconfigurable helical antenna based on an origami structure for wireless communication system

Study of the kinetics and mechanism of rapid self-assembly in block copolymer thin films during solvo-microwave annealing

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

The first hardware-based, anti-collision methodology for frequency doubling transceivers for RFID and wireless sensing applications

Symmetry-broken electronic structure and uniaxial Fermi surface nesting of untwinned CaFe₂As₂

An inkjet-printed microfluidic rfid-enabled platform for wireless lab-on-chip applications

Effect of surface morphology of poly(μ -caprolactone) scaffolds on adipose stem cell adhesion and proliferation

Human adipose stem cells in chondrogenic differentiation medium without growth factors differentiate towards annulus fibrosus phenotype in vitro

Proliferation and differentiation of adipose stem cells towards smooth muscle cells on poly(trimethylene carbonate) membranes

Non-sterile process for biohydrogen and 1,3-propanediol production from raw glycerol
Julkaisun otsikon käännös: : Non-sterile process for biohydrogen and 1,3-propanediol production from raw glycerol

Prospecting hydrogen production of Escherichia coli by metabolic network modeling
Julkaisun otsikon käännös: : Prospecting hydrogen production of Escherichia coli by metabolic network modeling

Passive wireless antenna sensor for strain and crack sensing - Electromagnetic modeling, simulation, and testing

Tuning PDMS brush chemistry by UV-O₃ exposure for PS-b-PDMS microphase separation and directed self-assembly

Multi-layer RF capacitors on flexible substrates utilizing inkjet printed dielectric polymers

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

Development and application of HVOF sprayed spinel protective coating for SOFC interconnects

Increased lifetime for biomass and waste to energy power plant boilers with HVOF coatings
High temperature corrosion testing under chlorine-containing molten salt

Surface properties and interaction forces of biopolymer-doped conductive polypyrrole surfaces by atomic force microscopy

Depth profiling of PLGA copolymer in a novel biomedical bilayer using confocal raman spectroscopy

Understanding the reinforcing behavior of expanded clay particles in natural rubber compounds

New design of textile light diffusers for photodynamic therapy

Molecularly functionalized silicon substrates for orientation control of the microphase separation of PS-b-PMMA and PS-b-PDMS block copolymer systems

Optical vortex generation in nematic liquid crystal light valves

Ab initio study of the surface properties of austenitic stainless steel alloys

Adsorption behavior and electronic properties of Pd_n (n ≤ 10) clusters on silicon carbide nanotubes
A first-principles study

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

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

Growth behavior and magnetic properties of spherical uranium oxide nanoclusters

A broadband omnidirectional circularly polarized antenna

A novel circuit model of nanotechnology-enabled inkjet-printed gas sensors using multi-wall carbon nanotubes

A novel dual-band retro-directive reflector array on paper utilizing Substrate Integrated Waveguide (SIW) and inkjet printing technologies for chipless RFID tag and sensor applications

A novel inkjet-printed passive microfluidic RFID-based sensing platform

A self-sustaining, autonomous, wireless-sensor beacon powered from long-range, ambient, RF energy

A shared-aperture dual-band planar array with self-similar printed folded dipoles

Cold test results of the LARP HQ Nb₃Sn quadrupole magnet at 1.9 K

Design and simulation of a slotted patch antenna sensor for wireless strain sensing

E-WEHP

A batteryless embedded sensor-platform wirelessly powered from ambient digital-TV signals

Low-cost inkjet-printed fully passive RFID tags using metamaterial-inspired antennas for capacitive sensing applications

Materials for electronics by thermal spraying

Modeling of steels and steel surfaces using quantum mechanical first principles methods

No battery required

Perpetual rfid-enabled wireless sensors for cognitive intelligence applications

Only skin deep

Inkjet-printed zero-power sensors for large-scale RFID-integrated smart skins

Co-electrospun blends of PU and PEG as potential biocompatible scaffolds for small-diameter vascular tissue engineering

Azobenzene photomechanics
Prospects and potential applications

Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends

Cysteine-tagged chimeric avidin forms high binding capacity layers directly on gold

Nematicons in azobenzene liquid crystals

Final shape of precision molded optics
Part II - Validation and sensitivity to material properties and process parameters

Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

Final shape of precision molded optics
Part I - Computational approach, material definitions and the effect of lens shape

Enhanced thermal stability of polychloroprene rubber composites with ionic liquid modified MWCNTs

Selective deuteron production using target normal sheath acceleration

Physisorption of benzene on a tin dioxide surface
Van der Waals interaction
Julkaisun otsikon käännös: : Physisorption of benzene on a tin dioxide surface: van der Waals interaction

A battery-less, energy harvesting device for long range scavenging of wireless power from terrestrial TV broadcasts

An inkjet-printed solar-powered wireless beacon on paper for identification and wireless power transmission applications

A novel Universal inkjet-printed EBG-backed flexible RFID for rugged on-body and metal mounted applications

Biomimetic hemo-compatible surfaces of polyurethane by grafting copolymer brushes of poly(ethylene glycol) and poly(phosphorylcholine methacrylate)

Block copolymer self-assembly on ethylene glycol (EG) self-assembled monolayer (SAM) for nanofabrication

Increasing performance of SDR-based collision-free RFID systems

Layered Double Hydroxides (LDH)
A multifunctional versatile system for nanocomposites

Performance enhancement of the RFID EPC Gen2 protocol by exploiting collision re-recovery

Prototyping scalable digital signal processing systems for radio astronomy using dataflow models

Thermal effects on a passive wireless antenna sensor for strain and crack sensing

UHF solar powered active oscillator antenna on low cost flexible substrate for wireless identification applications

Reorientational versus Kerr dark and gray solitary waves using modulation theory

A non-interruptive link-variation monitoring circuit for wireless sensor applications

A novel multiband planar antenna for GSM/UMTS/LTE/Zigbee/RFID mobile devices

Hydrogen and methane yields of untreated, water-extracted and acid (HCl) treated maize in one- and two-stage batch assays

Localized nonlinear wavepackets with radial-azimuthal modulated nonlinearity and an external potential

Adsorption and dissociation of molecular oxygen on α -Pu (0 2 0) surface
A density functional study

Detection of 3,4-methylenedioxymethamphetamine (MDMA, ecstasy) by displacement of antibodies

Machine learning
How it can help nanocomputing

First-principles atomistic study of surfaces of Fe-rich Fe-Cr

Lagrange solution for three wavelength solitary wave clusters in nematic liquid crystals

Strand and cable R&D for fast cycled magnets at CERN

Three-dimensional spatiotemporal vector solitary waves

Plasma etch technologies for the development of ultra-small feature size transistor devices

An ab initio study of $\text{PuO}_{2\pm 0.25}$, $\text{UO}_{2\pm 0.25}$, and $\text{U}_{0.5}\text{Pu}_{0.5}\text{O}_{2\pm 0.25}$

Molecular dynamics simulations of the interactions of kinin peptides with an anionic POPG bilayer

Micro-Raman characterization of Germanium thin films evaporated on various substrates

Optical power monitors in Ge monolithically integrated on SOI chips

Thermal evaporation of Ge on Si for near infrared detectors
Material and device characterization

Dynamics of coupled repressilators
The role of mRNA kinetics and transcription cooperativity

A new contactless assembly method for paper substrate antennas and UHF RFID chips

Hexaferrite/polyethylene Composite coatings prepared with flame spraying

Absorption profile and femtosecond intraband relaxation of the intense upper Davydov component in oligothiophenes

RF fingerprinting physical objects for anticounterfeiting applications

Interfacial design and structure of protein/polymer films on oxidized AlGaN surfaces

An electro-optically tunable Bragg reflector based on liquid crystals

Carbon-nanotube loaded antenna-based ammonia gas sensor

Circuit model of carbon-nanotube inks for microelectronic and microwave tunable devices

CNT-based RFID passive gas sensor

Design of a highly sensitive wireless passive RF strain transducer

Gas atomized thermal spray powders of various metals and alloys

Multicolor nonlinear pulse compression by consecutive optical parametric amplification in quasi-phase matched structures

Multi-resolution time-domain and level-set techniques for multi-domain/multi-physics/multi-phase simulations

RFID passive gas sensor integrating carbon nanotubes

Thickness variation study of RFID-based folded patch antennas for strain sensing

Wearable battery-free active paper printed RFID tag with human-energy scavenger

Surface-induced charge state conversion of nitrogen-vacancy defects in nanodiamonds

Efficient production of NV colour centres in nanodiamonds using high-energy electron irradiation

Exploratory analysis of spatiotemporal patterns of cellular automata by clustering compressibility

Observation of cavity structures in composite metamaterials

Fault tolerance of information processing in gene networks

Observation of off-axis directional beaming via subwavelength asymmetric metallic gratings

The magical world of metamaterials

Cavity formation in split ring resonators

Nonextensivity and universality in the earthquake preparation process

Transmission, refraction, and focusing properties of labyrinth based left-handed metamaterials

Designing materials with desired electromagnetic properties

Labyrinth based left-handed metamaterials and sub-wavelength focusing of electromagnetic waves

Photoluminescence and third harmonic generation in ZnPc thin films

Negative refraction and focusing of electromagnetic waves by metallodielectric photonic crystals

Highly directive radiation and negative refraction using photonic crystals

Design considerations for large-mode-area polarization maintaining double clad fibers

Highly directional enhanced radiation from sources embedded inside two and three-dimensional photonic crystals

Kilowatt-class single-frequency fiber sources

Physics and applications of photonic crystals

Radiation properties of sources inside photonic crystals

Surface relaxation of the (110) face of rutile SnO₂

Diffusion on aluminum-cluster surfaces and the cluster growth

Dynamics of a buck converter with a constant power load

Molecular dynamics simulation of crystallization of liquid copper clusters

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

Surface relaxation of the (1010) face of wurtzite CdS

Epitaxial growth of fcc clusters

Simulation of cluster growth using a lattice gas model

Instability of cuboctahedral copper clusters

Morphological and structural changes in laser CVD of silicon
comparison of theoretical temperature calculations with experimental results

Theoretical studies of structural properties of the high- T_c superconductor $Y_1Ba_2Cu_3O_{7-x}$

Numerical simulation of temperature distributions in layered structures during laser processing

Molecular dynamics investigation of the premelting effects of lennard-jones (111) surfaces

Vacancy-type defect distributions near argon sputtered Al(100) surface studied by variable-energy positrons and molecular dynamics simulations

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

Electronic damping of adsorbate motion
CO vibration on the Cu(100) surface

Near-surface defect profiling with slow positrons
Argon-sputtered Al(110)

Spin-density calculations for core-electron photoemission and Auger electron line shapes, x-ray-edge exponents, and solid-state shifts

Direct measurement of the kinetic energy shift between the molecular and atomic M4.5N4.5N4.5 Auger spectra of iodine

Direct measurement of vapour-metal shifts in photo- and Auger electron spectra of Zn and Cd

Solid-state effects in M4,5N4,5N4,5 Auger spectra of elements from In49 to Te52