

Effect of microstructure on the abrasive wear resistance of steels with hardness 450 HV

Slurry and dry particle erosion wear properties of WC-10Co4Cr and Cr<sub>3</sub>C<sub>2</sub>-25NiCr hardmetal coatings deposited by HVOF and HVOF spray processes

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

Abrasive-Erosive Wear of Thermally Sprayed Coatings from Experimental and Commercial Cr<sub>3</sub>C<sub>2</sub>-Based Powders

Accurate Binding of Sodium and Calcium to a POPC Bilayer by Effective Inclusion of Electronic Polarization

Accurate description of aqueous carbonate ions  
An effective polarization model verified by neutron scattering

Accurate description of calcium solvation in concentrated aqueous solutions

A comparison of relative displacement fields between numerical predictions and experimental results in fretting contact

A comparison of rheology and FTIR in the study of polypropylene and polystyrene photodegradation

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

Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction

Aqueous guanidinium-carbonate interactions by molecular dynamics and neutron scattering  
Relevance to ion-protein interactions

Arc-sprayed Fe-based coatings from coredwires for wear and corrosion protection in power engineering

Aryl end-capped quaterthiophenes applied as anode interfacial layers in inverted organic solar cells

Assessment of pitting corrosion in bare and passivated (wet scCO<sub>2</sub>-induced patination and chemical passivation) hot-dip galvanized steel samples with SVET, FTIR, and SEM (EDS)

A study of Cr<sub>3</sub>C<sub>2</sub>-based HVOF- and HVOF-sprayed coatings  
Abrasion, dry particle erosion and cavitation erosion resistance

A Study of Cr<sub>3</sub>C<sub>2</sub>-Based HVOF- and HVOF-Sprayed Coatings  
Microstructure and Carbide Retention

Avoiding the initial adhesive friction peak in fretting

Behavior of 4-hydroxynonenal in phospholipid membranes

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

Block copolymer lithography  
Feature size control and extension by an over-etch technique

Both zundel and eigen isomers contribute to the IR spectrum of the gas-phase H<sub>9</sub>O<sub>4</sub> + cluster

Calculated electronic density of states and structural properties of tetrahedral amorphous carbon

Carbon nanotubes-filled thermoplastic polyurethane-urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites

Catalytic Activity of AuCu Clusters on MgO(100)  
Effect of Alloy Composition for CO Oxidation

Cation-specific effects on enzymatic catalysis driven by interactions at the tunnel mouth

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

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

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

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

Characterization of Powder-Precursor HVOF-Sprayed Al<sub>2</sub>O<sub>3</sub>-YSZ/ZrO<sub>2</sub> Coatings

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

Cold gas spraying of a high-entropy CrFeNiMn equiatomic alloy

Cold-Sprayed Al6061 coatings  
Online spray monitoring and influence of process parameters on coating properties

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

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

Composition dependent growth dynamics in molecular beam epitaxy of GaInNAs solar cells

Compounding and characterization of recycled multilayer plastic films

Configurational Disorder of Water Hydrogen-Bond Network at the Protein Dynamical Transition

Construction of an Interconnected Nanostructured Carbon Black Network  
Development of Highly Stretchable and Robust Elastomeric Conductors

Convenient extraction method for quantification of thin zinc patina layers

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

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

Design aspects of all atomic layer deposited TiO<sub>2</sub>-Fe<sub>2</sub>O<sub>3</sub> scaffold-absorber photoanodes for water splitting

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

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

Detergent impurity effect on recycled HDPE  
Properties after repetitive processing

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

Digital correction of frequency response mismatches in 2-channel time-interleaved ADCs using adaptive I/Q signal processing

DNA lesion can facilitate base ionization  
Vertical ionization energies of aqueous 8-oxoguanine and its nucleoside and nucleotide

Effect of finish rolling and quench stop temperatures on impact-abrasive wear resistance of 0.35 % carbon direct-quenched steel

Effect of Hole Transporting Material on Charge Transfer Processes in Zinc Phthalocyanine Sensitized ZnO Nanorods

Effect of melting state on the thermal shock resistance and thermal conductivity of APS ZrO<sub>2</sub>-7.5wt.% Y<sub>2</sub>O<sub>3</sub> coatings

Effect of Multiple Impacts on the Deformation of Wear-Resistant Steels

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

Effect of Phosphatidic Acid on Biomembrane  
Experimental and Molecular Dynamics Simulations Study

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

Effect of silane integrated sol-gel derived in situ silica on the properties of nitrile rubber

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

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

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

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

Electrospun Black Titania Nanofibers

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

Energetic origin of proton affinity to the air/water interface

Energy dissipation in natural rubber latex films

The effect of stabilizers, leaching and acetone-treatment

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

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

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

Erosion wear performance of WC-10Co4Cr and Cr<sub>3</sub>C<sub>2</sub>-25NiCr coatings sprayed with high-velocity thermal spray processes

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

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

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

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

Evaluation of crushing strength of spray-dried MgAl<sub>2</sub>O<sub>4</sub> granule beds

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

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

Experimental and numerical investigation of fretting fatigue behavior in bolted joints

Exploring the role of stearic acid in modified zinc aluminum layered double hydroxides and their acrylonitrile butadiene rubber nanocomposites

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

Fabrication of ssDNA/Oligo(ethylene glycol) monolayers and patterns by exchange reaction promoted by ultraviolet light irradiation

Fabrication of ssDNA/oligo(ethylene glycol) monolayers by promoted exchange reaction with thiol and disulfide substituents

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

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

Fretting-induced friction and wear in large flat-on-flat contact with quenched and tempered steel

Geometric Structure and Chemical Ordering of Large AuCu Clusters  
A Computational Study

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

Guanidinium Pairing Facilitates Membrane Translocation

Hafnium oxide thin films as a barrier against copper diffusion in solar absorbers

Hematite Surface Modification toward Efficient Sunlight-Driven Water Splitting Activity  
The Role of Gold Nanoparticle Addition

High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K<sub>2</sub>SO<sub>4</sub> salt mixture

How conformational flexibility stabilizes the hyperthermophilic elongation factor G-domain

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

HVOF- and HVOF-Sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr Coatings Deposited from Feedstock Powders of Spherical Morphology  
Microstructure Formation and High-Stress Abrasive Wear Resistance Up to 800 °C

Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering

Impact wear and mechanical behavior of steels at subzero temperatures

Improved corrosion properties of Hot Dip Galvanized Steel by nanomolecular silane layers as hybrid interface between zinc and top coatings

Improvement of actuation performance of dielectric elastomers by barium titanate and carbon black fillers

Improving the high temperature abrasion resistance of thermally sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr coatings by WC addition

Influence of As/group-III flux ratio on defects formation and photovoltaic performance of GaInNAs solar cells

Influence of heat treatment on the abrasive wear resistance of a Cr<sub>3</sub>C<sub>2</sub>NiCr coating deposited by an ethene-fuelled HVOF spray process

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

Influence of temperature-induced copper diffusion on degradation of selective chromium oxy-nitride solar absorber coatings

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

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

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

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

Investigation of long-term chemical stability of structured ZnO films in aqueous solutions of varying conditions

Ionization of purine tautomers in nucleobases, nucleosides, and nucleotides  
From the gas phase to the aqueous environment

Irradiation promoted exchange reaction with disulfide substituents

Light-trapping enhanced thin-film III-V quantum dot solar cells fabricated by epitaxial lift-off

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

Long-Range Observation of Exciplex Formation and Decay Mediated by One-Dimensional Bridges

Lubricated icephobic coatings prepared by flame spraying with hybrid feedstock injection

Luminescent (Er,Ho)<sub>2</sub>O<sub>3</sub> thin films by ALD to enhance the performance of silicon solar cells

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

Mechanical characterization of pore-graded bioactive glass scaffolds produced by robocasting

Mechanical, thermal, and burning properties of viscose fabric composites  
Influence of epoxy resin modification

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

Microphase mechanism of "superquenching" of luminescent probes in aqueous solutions of DNA and some other polyelectrolytes

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

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

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

Microwave induced hierarchical nanostructures on aramid fibers and their influence on adhesion properties in a rubber matrix

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

Modification of Surface States of Hematite-Based Photoanodes by Submonolayer of  $\text{TiO}_2$  for Enhanced Solar Water Splitting

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

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

Non-destructive and wireless monitoring of biodegradable polymers

Nonlinear Optical Properties of Fluorescent Dyes Allow for Accurate Determination of Their Molecular Orientations in Phospholipid Membranes

Normal displacements in non-Coulomb friction conditions during fretting

Novel borosilicate bioactive scaffolds with persistent luminescence

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

Numerical simulation of temperature distributions in layered structures during laser processing

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

One-step flame synthesis of silver nanoparticles for roll-to-roll production of antibacterial paper

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

On the limit of superhydrophobicity  
Defining the minimum amount of  $\text{TiO}_2$  nanoparticle coating

Optical power monitors in Ge monolithically integrated on SOI chips

Optimised selection of new protective coatings for biofuel boiler applications

Optimization of convectively cooled heat sinks

Optimization of HVOF Cr<sub>3</sub>C<sub>2</sub>-NiCr coating for increased fatigue performance

Oriental dependence of the affinity of guanidinium ions to the water surface

Oxidation of cholesterol does not alter significantly its uptake into high-density lipoprotein particles

Oxygen and water vapor transmission rates of starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper

Passive resonance sensor based method for monitoring particle suspensions

PEGylated liposomes as carriers of hydrophobic porphyrins

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

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

Photoinduced Electron Injection from Zinc Phthalocyanines into Zinc Oxide Nanorods  
Aggregation Effects

Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids

Photophysical properties of porphyrin dimer-single-walled carbon nanotube linked systems

Photovoltaic properties of low-bandgap (0.7–0.9eV) lattice-matched GaInNAsSb solar junctions grown by molecular beam epitaxy on GaAs

Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications

PIP2 and Talin Join Forces to Activate Integrin

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

Polyarginine Interacts More Strongly and Cooperatively than Polylysine with Phospholipid Bilayers

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

Printable and flexible macroporous organosilica film with high protein adsorption capacity

Process Parameter Impact on Suspension-HVOF-Sprayed Cr<sub>2</sub>O<sub>3</sub> Coatings

Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles

Properties of HVOF-sprayed Stellite-6 coatings

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



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

Reinforced chloroprene rubber by in situ generated silica particles  
Evidence of bound rubber on the silica surface

Release of halide ions from the buried active site of the haloalkane dehalogenase LinB revealed by stopped-flow fluorescence analysis and free energy calculations

Reversal of the Hofmeister series  
Specific ion effects on peptides

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

Role of fracture toughness in impact-abrasion wear

Role of Internal Water on Protein Thermal Stability  
The Case of Homologous G Domains

Rotational Diffusion of Membrane Proteins in Crowded Membranes

Running-in effects on friction of journal bearings under slow sliding speeds

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

Silver sulfide nanoclusters and the superatom model

Sliding and abrasive wear behaviour of HVOF- and HVAF-sprayed  $\text{Cr}_3\text{C}_2$ -NiCr hardmetal coatings

Sliding wear behaviour of HVOF and HVAF sprayed  $\text{Cr}_3\text{C}_2$ -based coatings

Spectroscopic study of a DNA brush synthesized in situ by surface initiated enzymatic polymerization

Stability and Function at High Temperature. What Makes a Thermophilic GTPase Different from Its Mesophilic Homologue

Stable and unstable friction in fretting contacts

Stable blue phase polymeric Langmuir-Schaefer films based on unsymmetrical hydroxyalkadiynyl N-arylcarbamate derivatives

Starch-poly(vinyl alcohol) barrier coatings for flexible packaging paper and their effects of phase interactions

Static friction measurements on steel against uncoated and coated cast iron

Sulfonated polyetheretherketone/polypropylene polymer blends for the production of photoactive materials

Superamphiphobic overhang structured coating on a biobased material

Superatom Model for Ag-S Nanocluster with Delocalized Electrons

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

Surface behavior of hydrated guanidinium and ammonium ions  
A comparative study by photoelectron spectroscopy and molecular dynamics

Surface reactivity and silanization ability of borosilicate and Mg-Sr-based bioactive glasses

Surface-relief gratings and stable birefringence inscribed using light of broad spectral range in supramolecular polymer-bisazobenzene complexes

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

Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions

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

Temperature scanning stress relaxation behavior of water responsive and mechanically adaptive elastomer nanocomposites

The correlation between gear contact friction and ball on disc friction measurements

The deformation, strain hardening, and wear behavior of chromium-alloyed hadfield steel in abrasive and impact conditions

The effect of carbon and nickel additions on the precursor synthesis of  $\text{Cr}_3\text{C}_2$ -Ni nanopowder

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

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

The effects of laser patterning 10CeTZP- $\text{Al}_2\text{O}_3$  nanocomposite disc surfaces  
Osseous differentiation and cellular arrangement in vitro

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

The red, purple and blue modifications of polymeric unsymmetrical hydroxyalkadiynyl-N-arylcarbamate derivatives in Langmuir-Schaefer films

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

Thermally evaporated single-crystal Germanium on Silicon

The role of edge-concentrated wear in impact-abrasion testing

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

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

Time-Resolved Fluorescence Spectroscopy Reveals Fine Structure and Dynamics of Poly(L-lysine) and Polyethylenimine Based DNA Polyplexes

Towards universal enrichment nanocoating for IR-ATR waveguides

Transforming anion instability into stability  
Contrasting photoionization of three protonation forms of the phosphate ion upon moving into water

Transparent Yb<sup>3+</sup> doped phosphate glass-ceramics

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

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

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

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

Two cations, two mechanisms  
Interactions of sodium and calcium with zwitterionic lipid membranes

Ultrafast Photochemistry of the [Cr(NCS)<sub>6</sub>]<sup>3-</sup> Complex in Dimethyl Sulfoxide and Dimethylformamide upon Excitation into Ligand-Field Electronic State

Urea and guanidinium induced denaturation of a Trp-cage miniprotein

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

Vegetable fillers for electric stimuli responsive elastomers

Water-Responsive and Mechanically Adaptive Natural Rubber Composites by in Situ Modification of Mineral Filler Structures

Wear and impact behaviour of High Velocity Air-Fuel sprayed Fe-Cr-Ni-B-C alloy coatings

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

Wear Properties of Thermally Sprayed Tungsten-Carbide Coatings in Paper Machine Environments

Wetting hysteresis induced by temperature changes  
Supercooled water on hydrophobic surfaces

Advanced coatings by novel high-kinetic thermal spray processes

Cavitation wear characteristics of Al<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub>-ceramic coatings deposited by APS and HVOF -processes

Fracture Characteristics of High-Velocity Suspension Flame-Sprayed Aluminum Oxide Coatings

Active packaging by paper coating

Adjustable wetting properties of paperboard by liquid flame spray process

Characterization Of High-Velocity Single Particle Impacts On Thermally Sprayed Ceramic Coatings

CLC a Colored Liquid Crystal  
Prototype Description and Design Opportunities

Corrosion properties of thermally sprayed bond coatings under plasma sprayed chromia coating in sulfuric acid solutions

Envolvente de Vidrio Electrocrómico  
Translated title of the contribution: : Electrochromic Glass Envelope

HVOF process control enabling strategies

Improved properties for packaging materials by nanoscale surface modification and ALD barrier coating

Process time importance in the product properties evolution during extrusion coating of different LDPE grades

Roll-to-roll application of photocatalytic TiO<sub>2</sub> nanoparticles for printed functionality

Role of Oxide Defects in ALD grown TiO<sub>2</sub> Coatings on Performance as Photoanode Protection Layer

Thermal Modification of ALD Grown Titanium Oxide Ultra Thin Film for Photoanode Applications

Atomikerroskasvatusmenetelmällä kasvatetun titaanidioksidikalvon ominaisuudet valosähkökemiallisessa veden hajottamisessa  
Translated title of the contribution: : Properties of Atomic Layer Deposited Titanium Dioxide Film in Photoelectrochemical Water Splitting

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

Development in additive methods in aramid fiber surface modification to increase fiber-matrix adhesion  
A review

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

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

Stimuli-responsive photonic polymer coatings