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In: Journal of Physical Chemistry Part B, Vol. 120, No. 35, 08.09.2016, p. 9287-9296.

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

**Detergent impurity effect on recycled HDPE : Properties after repetitive processing.** / Mylläri, Ville; Hartikainen, Samuel; Poliakova, Valeria; Anderson, Reetta; Jönkkäri, Ilari; Pasanen, Pertti; Andersson, Mirja; Vuorinen, Jyrki.

In: Journal of Applied Polymer Science, Vol. 133, No. 31, 43766, 15.08.2016.

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

**Reinforced chloroprene rubber by in situ generated silica particles : Evidence of bound rubber on the silica surface. /**

Kapgate, Bharat P.; Das, Chayan; Das, Amit; Basu, Debdipta; Wiessner, Sven; Reuter, Uta; Heinrich, Gert.

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

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

Alekseev, Alexander; Ihalainen, Petri; Ivanov, Artem; Domnin, Ivan; Klechkovskaya, Vera;

Orekhov, Anton; Lemmetyinen, Helge; Vuorimaa-Laukkanen, Elina; Peltonen, Jouko; Vyaz'min, Sergey.

In: Thin Solid Films, Vol. 612, 01.08.2016, p. 463-471.

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

**Sliding and abrasive wear behaviour of HVOF- and HVOF-sprayed Cr<sub>3</sub>C<sub>2</sub>-NiCr hardmetal coatings. /**

Bolelli, G.; Berger, L. M.; Börner, T.; Koivuluoto, H.; Matikainen, V.; Lusvarghi, L.; Lyphout, C.; Markocsan, N.; Nylén, P.; Sassatelli, P.; Trache, R.; Vuoristo, P.

In: Wear, Vol. 358-359, 15.07.2016, p. 32-50.

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

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

Suihkonen, Reija; Lindgren, Mari; Siljander, Sanna; Sarlin, Essi; Vuorinen, Jyrki.

In: Wear, Vol. 358-359, 15.07.2016, p. 7-16.

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

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

Kilakoski, Jarkko; Lindroos, Matti; Apostol, Marian; Koivuluoto, Heli; Kuokkala, Veli-Tapani; Vuoristo, Petri.

In: Journal of Thermal Spray Technology, Vol. 25, 24.06.2016, p. 1127-1137.

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

Milanti, A.; Matikainen, V.; Bolelli, G.; Koivuluoto, H.; Lusvarghi, L.; Vuoristo, P.

In: Journal of Thermal Spray Technology, Vol. 25, No. 5, 06.2016, p. 1040-1055.

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

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

Polojärvi, Ville; Aho, Arto; Tukiainen, Antti; Raappana, Marianna; Aho, Timo; Schramm, Andreas; Guina, Mircea.

In: Solar Energy Materials and Solar Cells, Vol. 149, 01.05.2016, p. 213-220.

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

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

Hakola, Hanna; Sariola-Leikas, Essi; Efimov, Alexander; Tkachenko, Nikolai V.

In: Journal of Physical Chemistry C, Vol. 120, No. 13, 21.04.2016, p. 7044-7051.

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

**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. /**

Janka, Leo; Norpoth, Jonas; Trache, Richard; Berger, Lutz Michael.

In: Surface and Coatings Technology, Vol. 291, 15.04.2016, p. 444-451.

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

**Wetting hysteresis induced by temperature changes : Supercooled water on hydrophobic surfaces. /**

Heydari, Golrokh; Sedighi Moghaddam, Maziar; Tuominen, Mikko; Fielden, Matthew; Haapanen, Janne; Mäkelä, Jyrki M.; Claesson, Per M.

In: Journal of Colloid and Interface Science, Vol. 468, 15.04.2016, p. 21-33.

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

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

Katava, Marina; Kalimeri, Maria; Stirnemann, Guillaume; Sterpone, Fabio.

In: Journal of Physical Chemistry Part B, Vol. 120, No. 10, 17.03.2016, p. 2721-2730.

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

**Piezoresistive natural rubber-multiwall carbon nanotube nanocomposite for sensor applications.** / Selvan, N. Tamil; Eshwaran, S. B.; Das, A.; Stöckelhuber, K. W.; Wießner, S.; Pötschke, P.; Nando, G. B.; Chervanyov, A. I.; Heinrich, G.

In: Sensors and Actuators, A: Physical, Vol. 239, 01.03.2016, p. 102-113.

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**Ambient-Pressure XPS Study of a Ni-Fe Electrocatalyst for the Oxygen Evolution Reaction.** / Ali-Löytty, Harri; Louie, Mary W.; Singh, Meenesh R.; Li, Lin; Sanchez Casalongue, Hernan G.; Ogasawara, Hirohito; Crumlin, Ethan J.; Liu, Zhi; Bell, Alexis T.; Nilsson, Anders; Friebel, Daniel.

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**Guanidinium Pairing Facilitates Membrane Translocation.** / Allolio, Christoph; Baxova, Katarina; Vazdar, Mario; Jungwirth, Pavel.

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

**Static friction measurements on steel against uncoated and coated cast iron.** / Andersson, P.; Kilpi, L.; Holmberg, K.; Vaajoki, A.; Oksanen, V.

In: Tribologia, Vol. 34, No. 1-2, 01.01.2016, p. 5-40.

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

**Normal displacements in non-Coulomb friction conditions during fretting.** / Hintikka, Jouko; Lehtovaara, Arto; Mäntylä, Antti.

In: Tribology International, Vol. 94, 2016, p. 633-639.

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

**Influence of temperature-induced copper diffusion on degradation of selective chromium oxy-nitride solar absorber coatings.** / Kotilainen, M.; Honkanen, M.; Mizohata, K.; Vuoristo, P.

In: Solar Energy Materials and Solar Cells, Vol. 145, 2016, p. 323-332.

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

**Wear and impact behaviour of High Velocity Air-Fuel sprayed Fe-Cr-Ni-B-C alloy coatings.** / Bolelli, Giovanni; Milanti, Andrea; Lusvarghi, Luca; Trombi, Lorenzo; Koivuluoto, Heli; Vuoristo, Petri.

In: Tribology International, Vol. 95, 2016, p. 372-390.

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**The role of edge-concentrated wear in impact-abrasion testing.** / Ratia, Vilma; Valtonen, Kati; Kempainen, Anu; Kuokkala, Veli Tapani.

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

**Microstructural and abrasion wear characteristics of laser-clad tool steel coatings.** / Tuominen, J.; Näkki, J.; Pajukoski, H.; Hyvärinen, L.; Vuoristo, P.

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**Rapid and sensitive detection of norovirus antibodies in human serum with a bilayer interferometry biosensor.** / Auer, Sanna; Koho, Tiia; Uusi-Kerttula, Hanni; Vesikari, Timo; Blazevic, Vesna; Hytönen, Vesa P.

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**Comparison of laboratory rolling-sliding wear tests with in-service wear of nodular cast iron rollers against wire ropes.** / Oksanen, V.; Valtonen, K.; Andersson, P.; Vaajoki, A.; Laukkanen, A.; Holmberg, K.; Kuokkala, V. T.

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

**Production of sulfonated polyetheretherketone/polypropylene fibers for photoactive textiles.** / Mylläri, Ville; Fatarella, Enrico; Ruzzante, Marco; Pogni, Rebecca; Baratto, Maria Camilla; Skrifvars, Mikael; Syrjälä, Seppo; Järvelä, Pentti.

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**ESD qualification data used as the basis for building electrostatic discharge protected areas.** / Tamminen, Pasi; Viheriäkoski, Toni; Sydänheimo, Lauri; Ukkonen, Leena.

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**PIP2 and Talin Join Forces to Activate Integrin.** / Orłowski, Adam; Kukkurainen, Sampo; Pöyry, Annika; Rissanen, Sami; Vattulainen, Ilpo; Hytönen, Vesa P.; Róg, Tomasz.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 38, 24.09.2015, p. 12381-12389.

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**Wear Properties of Thermally Sprayed Tungsten-Carbide Coatings in Paper Machine Environments.** / Kiilakoski, J.; Eronen, V.; Vuoristo, P.

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

**Construction of an Interconnected Nanostructured Carbon Black Network : Development of Highly Stretchable and Robust Elastomeric Conductors.** / Bhagavatheswaran, Eshwaran Subramani; Parsekar, Meenali; Das, Amit; Le, Hai Hong; Wiessner, Sven; Stöckelhuber, Klaus Werner; Schmaucks, Gerd; Heinrich, Gert.

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

**Effect of spraying parameters on the microstructural and corrosion properties of HVOF-sprayed Fe-Cr-Ni-B-C coatings.** / Milanti, A.; Matikainen, V.; Koivuluoto, H.; Bolelli, G.; Lusvardi, L.; Vuoristo, P.

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

**Superatom Model for Ag-S Nanocluster with Delocalized Electrons.** / Goh, Jing Qiang; Akola, Jaakko.

In: *Journal of Physical Chemistry C*, Vol. 119, No. 36, 10.09.2015, p. 21165-21172.

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

**Electrospun Black Titania Nanofibers : Influence of Hydrogen Plasma-Induced Disorder on the Electronic Structure and Photoelectrochemical Performance.** / Lepcha, A.; Maccato, C.; Mettenböcker, A.; Andreu, T.; Mayrhofer, L.; Walter, M.; Olthof, S.; Ruoko, T. P.; Klein, A.; Moseler, M.; Meerholz, K.; Morante, J. R.; Barreca, D.; Mathur, S.

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

**Effect of Phosphatidic Acid on Biomembrane : Experimental and Molecular Dynamics Simulations Study.** / Kwolek, Urszula; Kulig, Waldemar; Wydro, Paweł; Nowakowska, Maria; Róg, Tomasz; Kepczynski, Mariusz.

In: *Journal of Physical Chemistry Part B*, Vol. 119, No. 31, 06.08.2015, p. 10042-10051.

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

**Evaluation of crushing strength of spray-dried MgAl<sub>2</sub>O<sub>4</sub> granule beds.** / Kanerva, Ulla; Suhonen, Tomi; Lagerbom, Juha; Levänen, Erkki.

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

**Nonlinear Optical Properties of Fluorescent Dyes Allow for Accurate Determination of Their Molecular Orientations in Phospholipid Membranes.** / Timr, Štěpán; Brabec, Jiří; Bondar, Alexey; Ryba, Tomáš; Železný, Miloš; Lazar, Josef; Jungwirth, Pavel.



In: Journal of Physical Chemistry Part B, Vol. 119, No. 30, 30.07.2015, p. 9706-9716.

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

**Photoinduced Electron Transfer in CdSe/ZnS Quantum Dot-Fullerene Hybrids.** / Virkki, Kirsi; Demir, Sinem; Lemmetyinen, Helge; Tkachenko, Nikolai V.

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**Role of Internal Water on Protein Thermal Stability : The Case of Homologous G Domains.** / Rahaman, Obaidur; Kalimeri, Maria; Melchionna, Simone; Hénin, Jérôme; Sterpone, Fabio.

In: Journal of Physical Chemistry Part B, Vol. 119, No. 29, 23.07.2015, p. 8939-8949.

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

**Fretting-induced friction and wear in large flat-on-flat contact with quenched and tempered steel.** / Hintikka, Jouko; Lehtovaara, Arto; Mäntylä, Antti.

In: Tribology International, Vol. 92, 02.07.2015, p. 191-202.

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

**A comparison of rheology and FTIR in the study of polypropylene and polystyrene photodegradation.** / Mylläri, Ville; Ruoko, Tero-Petri; Syrjälä, Seppo.

In: Journal of Applied Polymer Science, Vol. 132, No. 28, 42246, 01.07.2015.

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

**Synthesis and Photophysical Properties of Two Diazaporphyrin-Porphyrin Hetero Dimers in Polar and Nonpolar Solutions.** / Abou-Chahine, Fawzi; Fujii, Daisuke; Imahori, Hiroshi; Nakano, Haruyuki; Tkachenko, Nikolai V.; Matano, Yoshihiro; Lemmetyinen, Helge.

In: Journal of Physical Chemistry Part B, Vol. 119, No. 24, 18.06.2015, p. 7328-7337.

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

**Passive resonance sensor based method for monitoring particle suspensions.** / Salpavaara, Timo; Järveläinen, Matti; Seppälä, Sari; Yli-Hallila, Teemu; Verho, Jarmo; Vilkkö, Matti; Lekkala, Jukka; Levänen, Erkki.

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

**PEGylated liposomes as carriers of hydrophobic porphyrins.** / Dzieciuch, Monika; Rissanen, Sami; Szydłowska, Natalia; Bunker, Alex; Kumorek, Marta; Jamróz, Dorota; Vattulainen, Ilpo; Nowakowska, Maria; Róg, Tomasz; Kepczynski, Mariusz.

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**Hydration of hydroxyl and amino groups examined by molecular dynamics and neutron scattering.** / Hladílková, Jana; Fischer, Henry E.; Jungwirth, Pavel; Mason, Philip E.

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

**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.** / Song, Xuemei; Liu, Ziwei; Suhonen, Tomi; Varis, Tommi; Huang, Liping; Zheng, Xuebin; Zeng, Yi.

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**The effect of impact conditions on the wear and deformation behavior of wear resistant steels.** / Lindroos, Matti; Ratia, Vilma; Apostol, Marian; Valtonen, Kati; Laukkanen, Anssi; Molnar, Wolfgang; Holmberg, Kenneth; Kuokkala, Veli Tapani.

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

**Oxidation of cholesterol does not alter significantly its uptake into high-density lipoprotein particles. /** Karilainen, Topi; Timr, Štěpán; Vattulainen, Ilpo; Jungwirth, Pavel.

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

**Tribology of HVOF- and HVOF-sprayed WC-10Co4Cr hardmetal coatings : A comparative assessment. /** Bolelli, G.;

Berger, L. M.; Börner, T.; Koivuluoto, H.; Lusvarghi, L.; Lyphout, C.; Markocsan, N.; Matikainen, V.; Nylén, P.; Sassatelli, P.; Trache, R.; Vuoristo, P.

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

**High temperature corrosion of thermally sprayed NiCr and FeCr coatings covered with a KCl-K<sub>2</sub>SO<sub>4</sub> salt mixture. /** Varis, T.; Bankiewicz, D.; Yrjas, P.; Oksa, M.; Suhonen, T.; Tuurna, S.; Ruusuvoori, K.; Holmström, S.

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**Exploring the role of stearic acid in modified zinc aluminum layered double hydroxides and their acrylonitrile butadiene rubber nanocomposites. /** Eshwaran, Subramani Bhagavatheswaran; Basu, Debdipta; Vaikuntam, Sankar Raman; Kutlu, Burak; Wiessner, Sven; Das, Amit; Naskar, Kinsuk; Heinrich, Gert.

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

**Sulfonated polyetheretherketone/polypropylene polymer blends for the production of photoactive materials. /** Fatarelle, Enrico; Mylläri, Ville; Ruzzante, Marco; Pogni, Rebecca; Baratto, Maria Camilla; Skrifvars, Mikael; Syrjälä, Seppo; Järvelä, Pentti.

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**Silver sulfide nanoclusters and the superatom model. /** Goh, Jing-Qiang; Malola, Sami; Häkkinen, Hannu; Akola, Jaakko.

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**Effect of Multiple Impacts on the Deformation of Wear-Resistant Steels. /** Ratia, Vilma; Rojacz, Harald; Terva, Juuso;

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**Aryl end-capped quaterthiophenes applied as anode interfacial layers in inverted organic solar cells. /** Heiskanen, J. P.;

Manninen, V. M.; Pankov, D.; Omar, W. A. E.; Kastinen, T.; Hukka, T. I.; Lemmetyinen, H. J.; Hormi, O. E. O.

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**The correlation between gear contact friction and ball on disc friction measurements. /** Björling, M.; Miettinen, J.; Marklund, P.; Lehtovaara, A.; Larsson, R.

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**Dielectric Breakdown Strength of Thermally Sprayed Ceramic Coatings : Effects of Different Test Arrangements. /** Niittymäki, Minna; Lahti, Kari; Suhonen, Tomi; Metsäjoki, Jarkko.

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**Digital correction of frequency response mismatches in 2-channel time-interleaved ADCs using adaptive I/Q signal processing.** / Singh, Simran; Valkama, Mikko; Epp, Michael; Anttila, Lauri; Schlecker, Wolfgang; Ingber, Elmar.

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**The deformation, strain hardening, and wear behavior of chromium-alloyed hadfield steel in abrasive and impact conditions.** / Lindroos, Matti; Apostol, Marian; Heino, Vuokko; Valtonen, Kati; Laukkanen, Anssi; Holmberg, Kenneth; Kuokkala, Veli Tapani.

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**DNA lesion can facilitate base ionization : Vertical ionization energies of aqueous 8-oxoguanine and its nucleoside and nucleotide.** / Palivec, Vladimír; Pluharová, Eva; Unger, Isaak; Winter, Bernd; Jungwirth, Pavel.

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**Rapid, Brushless Self-assembly of a PS-b-PDMS Block Copolymer for Nanolithography.** / Rasappa, Sozaraj; Schulte, Lars; Borah, Dipu; Morris, Michael A.; Ndoni, Sokol.

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**Effects of composition and microstructure on the abrasive wear performance of quenched wear resistant steels.** / Ojala, Niko; Valtonen, Kati; Heino, Vuokko; Kallio, Marke; Aaltonen, Joonas; Siitonen, Pekka; Kuokkala, Veli Tapani.

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**Accurate description of calcium solvation in concentrated aqueous solutions.** / Kohagen, Miriam; Mason, Philip E.; Jungwirth, Pavel.

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**Surface behavior of hydrated guanidinium and ammonium ions : A comparative study by photoelectron spectroscopy and molecular dynamics.** / Werner, Josephina; Wernersson, Erik; Ekholm, Victor; Ottosson, Niklas; Öhrwall, Gunnar; Heyda, Jan; Persson, Ingmar; Söderström, Johan; Jungwirth, Pavel; Björneholm, Olle.

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**Carbon nanotubes-filled thermoplastic polyurethane-urea and carboxylated acrylonitrile butadiene rubber blend nanocomposites.** / Mahmood, Nasir; Khan, Asad Ullah; Stöckelhuber, Klaus Werner; Das, Amit; Jehnichen, Dieter; Heinrich, Gert.

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**Damage mechanisms and cracking behavior of thermal sprayed WC-CoCr coating under scratch testing.** / Ghabchi, Arash; Sampath, Sanjay; Holmberg, Kenneth; Varis, Tommi.

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