

REF 2014: Research outputs (REF2) (sorted by title)

13 – Electrical and Electronic Engineering, Metallurgy and Materials

[A disposable sensor for point of care wound pH monitoring.](#) The Analyst, 136 (22). pp. 4692-4695. [Journal article]

[A pilot study of a low-tilt biphasic waveform for transvenous cardioversion of atrial fibrillation: Improved efficacy compared with conventional capacitor-based waveforms in patients.](#) PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY, 31 (8). pp. 1020-1024. [Journal article]

[A support vector machine for predicting defibrillation outcomes from waveform metrics.](#) Resuscitation, 85 (3). pp. 343-349. [Journal article]

[Acetylene-argon plasmas measured at a biased substrate electrode for diamond-like carbon deposition: I. Mass spectrometry.](#) Plasma Sources Science and Technology, 20 (015003). [Journal article]

[Adsorption of bovine serum albumin on amorphous carbon surfaces studied with dip pen nanolithography.](#) Applied Surface Science, 258 (1). pp. 361-369. [Journal article]

[Amorphous carbon interlayers for gold on elastomer stretchable conductors.](#) Journal of Phys D, Applied Physics , 44 (24). 245301-9pp. [Journal article]

[An investigation into thermoplastic matrix 3D woven carbon fibre composites.](#) Journal of Reinforced Plastics and Composites, 31 (13). pp. 863-873. [Journal article]

[Analytical elastic stiffness model for 3D woven orthogonal interlock composites.](#) Composites Science and Technology, 70 . pp. 1597-1604. [Journal article]

[Application of azo dyes as dosimetric indicators for enhanced photocatalytic solar disinfection \(ENPHOSODIS\).](#) Journal of Photochemistry & Photobiology, A: Chemistry, 218 . pp. 185-191. [Journal article]

[Arm and wrist surface potential mapping for wearable ECG rhythm recording devices: a pilot clinical study.](#) Journal of Physics: Conference Series, 450 ((2013) 012026). pp. 1-8. [Journal article]

[Assessment of an osteoblast-like cell line as a model for human primary osteoblasts using Raman spectroscopy.](#) Analyst, 137 (7). pp. 1559-1569. [Journal article]

[Atmospheric Pressure Plasma Treated Carbon Fibre Weave: A Flexible Approach to Wound Monitoring.](#) Electrochemistry Communications, 33 . pp. 99-101. [Journal article]

[Biological responses to hydroxyapatite surfaces deposited via a co-incident microblasting technique.](#) BIOMATERIALS, 31 (2010). pp. 515-522. [Journal article]

[Catalyst-Free Efficient Growth, Orientation and Biosensing Properties of Multilayer Graphene Nanoflake Films with Sharp Edge Planes.](#) ADVANCED FUNCTIONAL MATERIALS, 18 (21). pp. 3506-3514. [Journal article]

[Characterization of hollow cathode and parallel plate microplasmas: scaling and breakdown.](#) Plasma Sources Science and Technology, 20 (2). 025011. [Journal article]

[Chemical Grafting of Poly\(ethylene glycol\) Methyl Ether Methacrylate onto Polymer Surfaces by Atmospheric Pressure Plasma Processing.](#) Langmuir, 26 (3). pp. 1894-1903. [Journal article]

[Comparative in vitro cytotoxicity study of carbon nanotubes and titania nanostructures on human lung epithelial cells.](#) Journal of Hazardous Materials, 191 . pp. 56-61. [Journal article]

[Degradation and accelerated ageing of poly\(ether block amide\) thermoplastic elastomers.](#) Polymer Engineering and Science, 51 (11). pp. 2203-2209. [Journal article]

[Deposition of TiO₂ thin films on steel using a microwave activated chemical bath.](#) SURFACE & COATINGS TECHNOLOGY, 203 (23). pp. 3614-3617. [Journal article]

[Determination of in-plane shear modulus of 3D woven composites with large repeat unit cells.](#) *Plastics, Rubber and Composites*, 41 (4-5). pp. 194-198. [Journal article]

[Eigenleads: ECG Leads for Maximizing Information Capture and Improving SNR.](#) *IEEE Transactions on Information Technology in Biomedicine*, 14 (1). pp. 69-78. [Journal article]

[Elimination of water pathogens with solar radiation using an automated sequential batch CPC reactor.](#) *Journal of Hazardous Materials*, 196 . pp. 16-21. [Journal article]

[Enhanced Field Emission and Improved Supercapacitor Obtained from Plasma-Modified Bucky Paper.](#) *Small*, 7 (5). pp. 688-693. [Journal article]

[Estimation performance of a reduced lead system during continuous 12-lead ECG ST-segment monitoring.](#) *Journal of Electrocardiology*, 45 (6). pp. 604-608. [Journal article]

[Evolution of mechanical properties in a 7075 Al-alloy subject to natural ageing.](#) *Materials and Design*, 49 . pp. 160-167. [Journal article]

[Experimental and numerical investigation of capillary flow in SU8 and PDMS microchannels with integrated pillars.](#) *Microfluidics and Nanofluidics*, 7 (4). p. 451. [Journal article]

[Fatigue and biocompatibility properties of a poly\(methyl methacrylate\) bonecement with multi-walled carbon nanotubes.](#) *Acta Biomaterialia*, 8 . pp. 1201-1212. [Journal article]

[Glutathione-mediated release of Bodipy[®] from PEG cofunctionalized gold nanoparticles.](#) *International Journal of Nanomedicine*, 7 . pp. 4007-4022. [Journal article]

[Graphene oxide for electrochemical sensing applications.](#) *Journal of Materials Chemistry*, 21 (38). pp. 14725-14731. [Journal article]

[Inactivation and injury assessment of Escherichia coli during solar and photocatalytic disinfection in LDPE bags.](#) *Chemosphere*, 85 (7). pp. 1160-1166. [Journal article]

[Inactivation of clinically relevant pathogens by photocatalytic coatings.](#) *Journal of Photochemistry and Photobiology A: Chemistry*, 216 . pp. 303-310. [Journal article]

[Influence of surface topography on osteoblast response to fibronectin coated calcium phosphate thin films.](#) *Colloids and Surfaces B: Biointerfaces*, 78 (2). pp. 283-290. [Journal article]

[Inhibition of lens epithelial cell growth via immobilisation of hyaluronic acid on atmospheric pressure plasma modified polystyrene.](#) *Soft Matter*, 7 . pp. 608-617. [Journal article]

[Integrated urate sensors for detecting wound infection.](#) *ELECTROCHEMISTRY COMMUNICATIONS*, 10 (5). pp. 709-713. [Journal article]

[Internal strain measurement and cure monitoring of 3d angle interlock woven carbon fibre composites.](#) *Composites Part B: Engineering*, available online . [Journal article]

[Method for forming a sector for a nacelle lipskin.](#) [Patent]

[Modeling the geometric characteristics of five-dimensionally woven composites.](#) *Journal of Reinforced Plastics and Composites* , 29 (23). 3475-3479 . [Journal article]

[Modelling of shear stress experienced by endothelial cells cultured on microstructured polymer substrates in a parallel plate flow chamber.](#) *Biotechnology and bioengineering*, 108 (5). pp. 1148-1158. [Journal article]

[Edit modelling the geometry of the repeat unit cell of three-dimensional weave architectures.](#) *Journal of Textile Institute*, 101 (7). pp. 679-685. [Journal article]

[Monitoring cellular behaviour using Raman spectroscopy for tissue engineering and regenerative medicine applications.](#) *Journal of Materials Science: Materials in Medicine*, 21 (8). pp. 2317-2324. [Journal article]

[Monitoring the Degree of Conversion of Cyclic Butylene Terephthalate using Dielectric Analysis.](#) *POLYMERS & POLYMER COMPOSITES*, 16 (6). pp. 365-373. [Journal article]

[Nanocrystalline ruthenium oxide dispersed Few Layered Graphene \(FLG\) nanoflakes as supercapacitor electrodes.](#) Journal of Materials Chemistry, 22 . pp. 14944-14950. [Journal article]

[Numerical Simulation of the Four Roll Bending Process.](#) Materials and Manufacturing Processes, 27 (4). pp. 370-376. [Journal article]

[On the possibility of long path breakdown affecting the Paschen curves for microdischarges.](#) Plasma Sources Science and Technology, 21 (3). 035016. [Journal article]

[Osteoblast-like cell response to calcium phosphate coating chemistry and morphology on etched silicon surfaces.](#) Journal of Materials Science:Materials in Medicine, Journal no. 10856 . pp. 835-851. [Journal article]

[Patterned cell culture substrates created by hot embossing of tissue culture treated polystyrene.](#) Journal of Materials Science: Materials in Medicine, online . [Journal article]

[Photocatalytic inactivation of Cryptosporidium parvum on nanostructured titanium dioxide films.](#) Journal of Water and Health, 08 (1). p. 83. [Journal article]

[Photocatalytic inactivation of E. coli in surface water using immobilised nanoparticle TiO₂ films.](#) Water Research, 43 (1). p. 47. [Journal article]

[Photolithographic structuring of stretchable conductors and sub-kPa pressure sensors.](#) Journal of Micromechanics and Microengineering, 21 (11). p. 115010. [Journal article]

[Photovoltaic Applications of Silicon Nanocrystal Based Nanostructures Induced by Nanosecond Laser Fragmentation in Liquid Media.](#) The Journal of Physical Chemistry C, 115 (12). pp. 5084-5093. [Journal article]

[Plasma-□"Liquid Interactions at Atmospheric Pressure for Nanomaterials Synthesis and Surface Engineering.](#) Plasma Processes and Polymers, 9 (11-12). pp. 1074-1085. [Journal article]

[Plasma-Polyplumbagin modified microfiber probes: a functional material approach to monitoring vascular access line contamination.](#) ACS: Applied Materials and Interfaces, Web . [Journal article]

[Polyethylene glycol functionalized gold nanoparticles:the influence of capping density on stability in various media.](#) Gold Bulletin , on line first . [Journal article]

[Probing the Thermal Deoxygenation of Graphene Oxide Using High-Resolution In Situ X-ray-Based Spectroscopies.](#) The Journal of Physical Chemistry C, 115 . pp. 17009-17019. [Journal article]

[Protein adhesion and cell response on atmospheric pressure dielectric barrier discharge-modified polymer surfaces.](#) ACTA BIOMATERIALIA, 6 (7). pp. 2609-2620. [Journal article]

[Raman spectroscopic monitoring of the osteogenic differentiation of human mesenchymal stem cells.](#) The Analyst, 136 . pp. 2471-2481. [Journal article]

[Rapid Microwave Synthesis of CO Tolerant Reduced Graphene Oxide-Supported Platinum Electrocatalysts for Oxidation of Methanol.](#) Journal Of Physical Chemistry C, 114 . pp. 19459-19466. [Journal article]

[Selection of optimal recording sites for limited lead body surface potential mapping in myocardial infarction and left ventricular hypertrophy.](#) Journal of Electrocardiology, 41 (3). pp. 264-271. [Journal article]

[Self-Assembled Growth, Microstructure, and Field-Emission High-Performance of Ultrathin Diamond Nanorods.](#) ACS NANO, 3 (4). pp. 1032-1038. [Journal article]

[Silicon Nanocrystals in Liquid Media: Optical Properties and Surface Stabilization by Microplasma-Induced Non-Equilibrium Liquid Chemistry.](#) Advanced Functional Materials, 22 (5). pp. 954-964. [Journal article]

[Solar photocatalytic disinfection of water with immobilised titanium dioxide in re-circulating flow CPC reactors.](#) Applied Catalysis B: Environmental, 128 . p. 126. [Journal article]

[Sputter deposited bioceramic coatings: surface characterisation and initial protein adsorption studies using surface-MALDI-MS.](#) Journal of Materials Science: Materials in Medicine, 22 . pp. 71-84. [Journal article]

[Standardization of reduced and optimal lead sets for continuous electrocardiogram monitoring: where do we stand?](#) Journal of Electrocardiology, 41 (6). pp. 458-465. [Journal article]

[Surface-engineered silicon nanocrystals.](#) Nanoscale, 5 . pp. 1385-1398. [Journal article]

[The effect of 3D weaving and consolidation on carbon fiber tows, fabrics, and composites.](#) Journal of Reinforced Plastics and Composites, 29 (20). pp. 3162-3170. [Journal article]

[The effect of serrated yielding on the determination of r-values in aluminium alloys and yield locus calibration.](#) Materials Science and Engineering: A, 527 (29-30). p. 7557. [Journal article]

[The Influence of Through-The-Thickness Binder Yarn Count on Fibre Volume Fraction, Crimp and Damage Tolerance Within 3D Woven Carbon Fibre Composites.](#) POLYMERS & POLYMER COMPOSITES, 17 (5). pp. 303-312. [Journal article]

[The Role of Enamel Proteins in Protecting Mature Human Enamel Against Acidic Environments: A Double Layer Force Spectroscopy Study.](#) Biointerphases, 7 (1-4). [Journal article]

[Titania nanotube porosity controls dissolution rate of sputter deposited calcium phosphate \(CaP\) thin film coatings.](#) RSC Advances, Advance Article . [Journal article]

[Ultrasmall radio frequency driven microhollow cathode discharge.](#) APPLIED PHYSICS LETTERS, 93 (1). 011501. [Journal article]

[Waveform optimisation for internal cardioversion of atrial fibrillation.](#) Journal of Electrocardiology, 44 (6). pp. 689-693. [Journal article]