

Active optical clock based on four-level quantum system

Combining deep learning with token selection for patient phenotyping from electronic health records

Mechanism of homodimeric cytokine receptor activation and dysregulation by oncogenic mutations

Insulin resistance is associated with altered amino acid metabolism and adipose tissue dysfunction in normoglycemic women

Redox-coupled quinone dynamics in the respiratory complex I

Rapid growth of new atmospheric particles by nitric acid and ammonia condensation

X-ray microtomography is a novel method for accurate evaluation of small-bowel mucosal morphology and surface area

Comparison of electron injection and recombination on  $\text{TiO}_2$  nanoparticles and ZnO nanorods photosensitized by phthalocyanine

Three-Dimensional Printing of the Nasal Cavities for Clinical Experiments

Analysis of spatial heterogeneity in normal epithelium and preneoplastic alterations in mouse prostate tumor models

Behaviour of one-step spray-coated carbon nanotube supercapacitor in ambient light harvester circuit with printed organic solar cell and electrochromic display

Genomically amplified Akt3 activates DNA repair pathway and promotes glioma progression

Extensive transduction of nonrepetitive DNA mediated by L1 retrotransposition in cancer genomes

Sub-parts-per-trillion level sensitivity in trace gas detection by cantilever-enhanced photo-acoustic spectroscopy

Emergent rogue wave structures and statistics in spontaneous modulation instability

Automatic knee osteoarthritis diagnosis from plain radiographs  
A deep learning-based approach

Multimodal Machine Learning-based Knee Osteoarthritis Progression Prediction from Plain Radiographs and Clinical Data

An Optical Method for the In-Vivo Characterization of the Biomechanical Response of the Right Ventricle

Proton-coupled electron transfer and the role of water molecules in proton pumping by cytochrome c oxidase

Redox-induced activation of the proton pump in the respiratory complex I

Bioinspired underwater locomotion of light-driven liquid crystal gels

Mechanistic principles underlying regulation of the actin cytoskeleton by phosphoinositides

Porous poly-L-lactide-co-1-caprolactone scaffold  
A novel biomaterial for vaginal tissue engineering

Segmented molecular design of self-healing proteinaceous materials

Optical detection of radon decay in air

Machine learning analysis of rogue solitons in supercontinuum generation

Molecular mechanisms of Charcot-Marie-Tooth neuropathy linked to mutations in human myelin protein P2

Trends for isolated amino acids and dipeptides  
Conformation, divalent ion binding, and remarkable similarity of binding to calcium and lead

Traffic is a major source of atmospheric nanocluster aerosol

Infiltrated bunch of solitons in Bi-doped frequency-shifted feedback fibre laser operated at 1450 nm

Superdiffusion dominates intracellular particle motion in the supercrowded cytoplasm of pathogenic *Acanthamoeba castellanii*

Highly-Sensitive Refractive Index Sensing by Near-infrared Metatronic Nanocircuits

A Highly Efficient Sensor Platform Using Simply Manufactured Nanodot Patterned Substrates

Non-toxic printed supercapacitors operating in sub-zero conditions

Skin-conformable printed supercapacitors and their performance in wear

Variance-corrected Michaelis-Menten equation predicts transient rates of single-enzyme reactions and response times in bacterial gene-regulation

Added value of autoregulation and multi-step kinetics of transcription initiation

Information transfer in QT-RR dynamics  
Application to QT-correction

Selective effect of cell membrane on synaptic neurotransmission

Atomistic determinants of co-enzyme Q reduction at the Q<sub>1</sub>-site of the cytochrome bc<sub>1</sub> complex

Interleukin-6 and microRNA profiles induced by oral bacteria in human atheroma derived and healthy smooth muscle cells

An ensemble of classifiers based on different texture descriptors for texture classification

1700 nm dispersion managed mode-locked bismuth fiber laser

Ricci-flow based conformal mapping of the proximal femur to identify exercise loading effects

Dynamical heart beat correlations during running

Glucosylceramide modifies the LPS-induced inflammatory response in macrophages and the orientation of the LPS/TLR4 complex in silico

Comparative proteomics reveals human pluripotent stem cell-derived limbal epithelial stem cells are similar to native ocular surface epithelial cells

Caustics and rogue waves in an optical sea

Tooth wear and dentoalveolar remodeling are key factors of morphological variation in the Dmanisi mandibles

Rate-limiting steps in transcription dictate sensitivity to variability in cellular components

Human iPSC derived disease model of MERTK-associated retinitis pigmentosa

Transient formation of water-conducting states in membrane transporters

Structure and permeation mechanism of a mammalian urea transporter

Multicomponent new particle formation from sulfuric acid, ammonia, and biogenic vapors

Quasi two-dimensional astigmatic solitons in soft chiral metastructures

Curved optical solitons subject to transverse acceleration in reorientational soft matter

Using multi-step proposal distribution for improved MCMC convergence in Bayesian network structure learning

Real-time characterization of spectral instabilities in a mode-locked fibre laser exhibiting soliton-similariton dynamics

Gaussian Light Model in Brightfield Optical Projection Tomography

Personalized Monitoring and Advance Warning System for Cardiac Arrhythmias

Scaling and correlation properties of RR and QT intervals at the cellular level

Optimized dispersion quality of aqueous carbon nanotube colloids as a function of sonochemical yield and surfactant/CNT ratio

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N-Glycosylation as determinant of epidermal growth factor receptor conformation in membranes

Changes in hemodynamics associated with metabolic syndrome are more pronounced in women than in men

Automatization and stress analysis data of CoCr laser weld fatigue tests

Entropy analysis of word-length series of natural language texts  
Effects of text language and genre

Parkinson's disease detection from 20-step walking tests using inertial sensors of a smartphone  
Machine learning approach based on an observational case-control study

Physical chemistry  
Water's wafer-thin surface

Brain hemodynamic activity during viewing and re-viewing of comedy movies explained by experienced humor

Genetic similarity of biological samples to counter bio-hacking of DNA-sequencing functionality

Genome-wide modeling of transcription kinetics reveals patterns of RNA production delays

Structure-phenotype correlations of human CYP21A2 mutations in congenital adrenal hyperplasia

The evolutionary history of lethal metastatic prostate cancer

Membrane omega-3 fatty acids modulate the oligomerisation kinetics of adenosine  $A_{2A}$  and dopamine  $D_2$  receptors

First passage time distribution in heterogeneity controlled kinetics  
Going beyond the mean first passage time

Highly ductile amorphous oxide at room temperature and high strain rate

Azobenzene-based sinusoidal surface topography drives focal adhesion confinement and guides collective migration of epithelial cells

Sensitivity enhancement of flexible gas sensors via conversion of inkjet-printed silver electrodes into porous gold counterparts

Upstream Transcription Factor 1 (USF1) allelic variants regulate lipoprotein metabolism in women and USF1 expression in atherosclerotic plaque

Lower bound for the spatial extent of localized modes in photonic-crystal waveguides with small random imperfections

Subangstrom resolution x-ray structure details aquaporin-water interactions

Effects of Sintering Temperature on Crystallization and Fabrication of Porous Bioactive Glass Scaffolds for Bone Regeneration

In vitro Evaluation of Porous borosilicate, borophosphate and phosphate Bioactive Glasses Scaffolds fabricated using Foaming Agent for Bone Regeneration

A Bayesian analysis of the chromosome architecture of human disorders by integrating reductionist data

Surface-Enhanced Impulsive Coherent Vibrational Spectroscopy

Mechanically driven strategies to improve electromechanical behaviour of printed stretchable electronic systems

Step down Vascular Calcification Analysis using State-of-the-Art Nanoanalysis Techniques

Automatic classification of IgA endomysial antibody test for celiac disease  
a new method deploying machine learning

Real sequence effects on the search dynamics of transcription factors on DNA

Multilayer Aggregation with Statistical Validation  
Application to Investor Networks

Aerosol gas exchange system (AGES) for nanoparticle sampling at elevated temperatures  
Modeling and experimental characterization

On the linear programming bound for linear Lee codes

DroneRF dataset  
A dataset of drones for RF-based detection, classification and identification

Speeding up crystallization

Facile strain analysis of largely bending films by a surface-labelled grating method

Automatic Posture and Movement Tracking of Infants with Wearable Movement Sensors

Chromatin organization regulates viral egress dynamics