Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.
Registered Charity No 207043

ISSN 1364-5021
volume 468
number 2146
pages 2849–3264

Review articles
Mechanostereochemistry and the mechanical bond
G. Barin, R. S. Forgan & J. F. Stoddart

Research articles
Hyperelastic cloaking theory: transformation elasticity with pre-stressed solids
A. N. Norris, W. J. Parnell
Retention of δ-ferrite in aluminium-alloyed TRIP-assisted steels
Semi-analytical solutions for two-dimensional elastic capsules in Stokes flow
M. High, M. Sigmund & M. R. Booth
A fracture mechanics model for a crack problem of functionally graded materials with stochastic mechanical properties
L. Guo, Z. Wang & N. Nicola
Points of general relativistic shock wave interaction are ‘regularity singularities’ where space–time is not locally flat
M. Reintjes & B. Temple
Dynamic axial crush response of circular cell honeycombs
R. J. D’Mello, S. Guntupalli, L. R. Hansen & A. M. Waas
The finite-dipole dynamical system
A. A. Tchieu, E. Kanso & P. K. Newton
Vortex-type elastic structured media and dynamic shielding
M. Brun, I. J. Jones & A. R. Marston

Work conjugacy error in commercial finite-element codes: its magnitude and how to compensate for it
Z. P. Bazant, M. Cattu & J. Vorel
The evolution of pebble size and shape in space and time
G. Domschke & G. W. Gibbons
High-frequency electromagnetic non-destructive evaluation for high spatial resolution, using metamaterials
R. Grimberg & G.-Y. Tian
On molecular diffusion in nanostructured porous media: interfacial exchange kinetics and surface diffusion
B. Alabakkari & R. J. Hill
Three-dimensional cellular structures with negative Poisson’s ratio and negative compressibility properties
J. N. Crima, R. Caruana-Gauci, D. Attard & R. Catt
The nonlinear electromigration of analytes into confined spaces
Z. Chen & S. Ghosal
Nonlinear analysis of an actuated seafloor-mounted carpet for a high-performance wave energy extraction
M.-R. Alam
Helical buckling of Skyrme–Faddeev solitons
D. Foster & D. Harland
On the spherically symmetric Einstein–Yang–Mills–Higgs equations in Bondi coordinates
C. Tadmon & S. B. Tchapnda

A thermal analysis of the operation of microscale, inorganic light-emitting diodes
C. Lu, Y. Li, M. Song, H.-S. Kim, E. Brueckner, B. Fang, K.-C. Hwang, Y. Huang, R. G. Nuzzo & J. A. Rogers
Optical spectral singularities and coherent perfect absorption in a two-layer spherical medium
A. Mostafazadeh & M. Sarisaman
Exact solutions of a q-discrete second Painlevé equation from its isomonodromy deformation problem, B. Hypergeometric solutions
N. Joshi & Y. Shi

Published in Great Britain by the Royal Society, 6–9 Carlton House Terrace, London SW1Y 5AG

rspa.royalsocietypublishing.org

on June 20, 2017