

Yong Pang

School of Engineering and Materials Science
Queen Mary University of London
Mile End Road
London E1 4NS

tel: +44 (0)20 7882 8732
email: yong.pang@qmul.ac.uk web: www.sems.qmul.ac.uk/yong.pang

2026

Mechanics and bio-mimicking of wet adhesion in nature.

. *Progress in Materials Science* vol. 158,.Elsevier.

Stress-state and strain-rate dependency of fracture in SCFR-PEEK composites under biaxial loading.

. *Composites Part a Applied Science and Manufacturing* vol. 203,.Elsevier.

2025

Anisotropy of 316L stainless steel foil and its effect on the forming process.

. *Materials Today Communications* vol. 45,.Elsevier.

2024

Ultra-soft cellular solids inspired by marine mussel plaques: scaling of the mechanical properties.

. *Proceedings of The Royal Society A* vol. 480, (2300).The Royal Society.

Elasticplastic strain conversion of a thin-plate miniaturized tensile test based on crosshead measurement via an analytical method.

. *Theoretical and Applied Fracture Mechanics* vol. 133,.Elsevier.

Assessment of the Desiccation Cracking Characteristics of Clay Reinforced with Fibers Utilizing the Distributed Optical Fiber Sensing (DOFS) Technique.

. *Indian Geotechnical Journal* vol. 55, (6) 3746-3761.Springer Nature.

Anisotropic Plasticity Behavior of Rolled 316L Ultra-Thin Sheet and Its Application to Micro-Deep Drawing Modeling.

. *Journal of Materials Engineering and Performance* vol. 34, (13) 13053-13063.Springer Nature.

Quasi-static responses of marine mussel plaques detached from deformable wet substrates under directional tensions.

. *Proceedings of The Royal Society A* vol. 480, (2290).The Royal Society.

Virtual laboratory enabled constitutive modelling of dual phase steels.

. *International Journal of Plasticity* vol. 175,.Elsevier.

Anisotropic plasticity deformation during micro-deep drawing of 304 foils: An experimental and numerical investigation.

. *International Journal of Material Forming* vol. 17, (3).Springer Nature.

Unveiling the deformability of mussel plaque core: the role of pore distribution and hierarchical structure.

. *Soft Matter* vol. 20, (37) 7405-7419.Royal Society of Chemistry (Rsc).

Determining hyperelastic properties of the constituents of the mussel byssus system.

. *Soft Matter* vol. 20, (11) 2442-2454.Royal Society of Chemistry (Rsc).

2023

Creep Characterization of Inconel 718 Lattice Metamaterials Manufactured by Laser Powder Bed Fusion.
. *Advanced Engineering Materials* vol. 27, (11).Wiley.

Unravelling the effects of ratcheting and constraint on the cyclic behaviour of a martensitic steel under elevated temperature.
. *Mechanics of Materials* vol. 184,.Elsevier.

Multi-scale modelling of evolving plastic anisotropy during Al-alloy sheet forming.
. *International Journal of Mechanical Sciences* vol. 247,.Elsevier.

Discovery of quasi-disordered truss metamaterials inspired by natural cellular materials.
. *Journal of The Mechanics and Physics of Solids* vol. 175,.Elsevier.

2022

Experimental investigation on microstructures and mechanical properties of PG4 flash-butt rail welds.
. *Engineering Failure Analysis* vol. 141,.Elsevier.

Data-driven design of high ductile metamaterials under uniaxial tension.
. *Current Perspectives and New Directions in Mechanics, Modelling and Design of Structural Systems* 115-116. Taylor & Francis.

2021

A multi-scale modelling framework for anisotropy prediction in aluminium alloy sheet and its application in the optimisation of the deep-drawing process.
. *The International Journal of Advanced Manufacturing Technology* vol. 114, (11-12) 3401-3417.Springer Nature.

2020

The structural integrity of flash-butt welded premium rail steel Evaluation of strength, microstructure and defects.
. *Proceedings of The Institution of Mechanical Engineers Part F Journal of Rail and Rapid Transit* vol. 235, (8) 1006-1012.Sage Publications.

A 3D phenomenological yield function with both in and out-of-plane mechanical anisotropy using full-field crystal plasticity spectral method for modelling sheet metal forming of strong textured aluminum alloy.
. *International Journal of Solids and Structures* vol. 193, 117-133.Elsevier.

Enhanced laser speckle optical sensor for in situ strain sensing and structural health monitoring.
. *Optics Letters* vol. 45, (8) 2331-2334.Optica Publishing Group.

Development of a non-contact and non-destructive laser speckle imaging system for remote sensing of anisotropic deformation around fastener holes.
. *Ndt & E International* vol. 111,.Elsevier.

Measurement of deformation of the concrete sleepers under different support conditions using non-contact laser speckle imaging sensor.
. *Engineering Structures* vol. 205,.Elsevier.

2019

Numerical investigation of evolution of earing, anisotropic yield and plastic potentials in cold rolled FCC aluminium alloy based on the crystallographic texture measurements.
. *European Journal of Mechanics - a/Solids* vol. 75, 41-55.Elsevier.

An investigation of plastic behaviour in cold-rolled aluminium alloy AA2024-T3 using laser speckle imaging sensor.
. *The International Journal of Advanced Manufacturing Technology* vol. 103, (5-8) 2707-2724.Springer Nature.

2018

A new temperature-dependent anisotropic constitutive model for predicting deformation and spring-back in warm deep drawing of automotive AA5086-H111 aluminium alloy sheet.

. The International Journal of Advanced Manufacturing Technology vol. 97, (9-12) 3407-3421. Springer Nature.