

Nick Croft

List of Publications by Year in descending order

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Version: 2024-02-01

62
papers

943
citations

471509

17
h-index

501196

28
g-index

63
all docs

63
docs citations

63
times ranked

891
citing authors

#	ARTICLE	IF	CITATIONS
1	An investigation of micro-mechanisms in hydrogen induced cracking in nickel-based superalloy 718. <i>Journal of Alloys and Compounds</i> , 2016, 664, 664-681.	5.5	83
2	A coupled blade element momentum “ Computational fluid dynamics model for evaluating tidal stream turbine performance. <i>Applied Mathematical Modelling</i> , 2013, 37, 3006-3020.	4.2	76
3	Performance comparison of a single and triple tangential inlet gas separation cyclone: A CFD Study. <i>Powder Technology</i> , 2013, 235, 520-531.	4.2	60
4	Simulations technique for the design of a vertical axis wind turbine device with experimental validation. <i>Applied Energy</i> , 2013, 111, 1195-1203.	10.1	45
5	Computational modeling of reactive multi-phase flows in porous media: Applications to metals extraction and environmental recovery processes. <i>Minerals Engineering</i> , 2006, 19, 1098-1108.	4.3	37
6	Influence of grain boundary misorientation on hydrogen embrittlement in bi-crystal nickel. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 20671-20688.	7.1	36
7	Multi-phase modelling of intergranular hydrogen segregation/trapping for hydrogen embrittlement. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 15105-15123.	7.1	34
8	An enhanced disk averaged CFD model for the simulation of horizontal axis tidal turbines. <i>Renewable Energy</i> , 2017, 101, 67-81.	8.9	34
9	Modelling and validation: Casting of Al and TiAl alloys in gravity and centrifugal casting processes. <i>Applied Mathematical Modelling</i> , 2013, 37, 7633-7643.	4.2	31
10	Aspects of tidal stream turbine modelling in the natural environment using a coupled BEM“CFD model. <i>International Journal of Marine Energy</i> , 2014, 7, 20-42.	1.8	31
11	Automatic Stream Surface Seeding: A Feature Centered Approach. <i>Computer Graphics Forum</i> , 2012, 31, 1095-1104.	3.0	24
12	Benchmark experiments for simulations of a vertical axis wind turbine. <i>Applied Energy</i> , 2013, 111, 1183-1194.	10.1	23
13	Finite element microstructural homogenization techniques and intergranular, intragranular microstructural effects on effective diffusion coefficient of heterogeneous polycrystalline composite media. <i>Composite Structures</i> , 2014, 108, 555-564.	5.8	23
14	Modeling the hydrodynamics of heap leaching in sub-zero temperatures. <i>Minerals Engineering</i> , 2016, 90, 77-88.	4.3	23
15	Computational prediction of pressure change in the vicinity of tidal stream turbines and the consequences for fish survival rate. <i>Renewable Energy</i> , 2017, 101, 1141-1156.	8.9	22
16	Multiscale multiphysics model for hydrogen embrittlement in polycrystalline nickel. <i>Journal of Alloys and Compounds</i> , 2015, 645, S500-S504.	5.5	21
17	Computational modelling of bubbles, droplets and particles in metals reduction and refining. <i>Applied Mathematical Modelling</i> , 2006, 30, 1445-1458.	4.2	20
18	Mesh-Driven Vector Field Clustering and Visualization: An Image-Based Approach. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2012, 18, 283-298.	4.4	19

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19	Complex free surface flows in centrifugal casting: Computational modelling and validation experiments. <i>Computers and Fluids</i> , 2013, 82, 63-72.	2.5	19
20	A CFD model for the prediction of haemolysis in micro axial left ventricular assist devices. <i>Applied Mathematical Modelling</i> , 2013, 37, 4199-4207.	4.2	18
21	A coupled finite volume method for the computational modelling of mould filling in very complex geometries. <i>Computers and Fluids</i> , 2008, 37, 170-180.	2.5	16
22	Numerical simulation of dynamic contact angle using a force based formulation. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2011, 166, 900-907.	2.4	15
23	Performance comparison of a blast furnace gravity dust-catcher vs. tangential triple inlet gas separation cyclone using computational fluid dynamics. <i>Separation and Purification Technology</i> , 2013, 115, 205-215.	7.9	15
24	Heap Leaching: Modelling and Forecasting Using CFD Technology. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 9.	2.0	15
25	Computational modelling of metal extrusion and forging processes. <i>Journal of Materials Processing Technology</i> , 2002, 125-126, 573-582.	6.3	14
26	Tidal turbine deployment in the Bristol Channel: a case study. <i>Proceedings of Institution of Civil Engineers: Energy</i> , 2010, 163, 93-105.	0.6	14
27	Optimization of a CFD "Heap leach model and sensitivity analysis of process operation. <i>Minerals Engineering</i> , 2014, 63, 57-64.	4.3	14
28	Modelling the influence of microstructural morphology and triple junctions on hydrogen transport in nanopolycrystalline nickel. <i>Composites Part B: Engineering</i> , 2015, 75, 104-118.	12.0	14
29	Meso-microstructural computational simulation of the hydrogen permeation test to calculate intergranular, grain boundary and effective diffusivities. <i>Journal of Alloys and Compounds</i> , 2015, 645, S247-S251.	5.5	14
30	Coupled macroscale-microscale model for hydrogen embrittlement in polycrystalline materials. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 2882-2889.	7.1	13
31	Assessing the Scalability of Multiphysics Tools for Modeling Solidification and Melting Processes on Parallel Clusters. <i>International Journal of High Performance Computing Applications</i> , 2005, 19, 1-27.	3.7	12
32	CFD analysis of an induration cooler on an iron ore grate-kiln pelletising process. <i>Minerals Engineering</i> , 2009, 22, 859-873.	4.3	12
33	Computational Fluid Dynamics and Visualisation of Coastal Flows in Tidal Channels Supporting Ocean Energy Development. <i>Energies</i> , 2015, 8, 5997-6012.	3.1	10
34	A mixed Eulerian-Lagrangian method for modelling metal extrusion processes. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 2123-2134.	6.6	9
35	Level-set method for the modelling of liquid bridge formation and break-up. <i>Computers and Fluids</i> , 2011, 40, 42-51.	2.5	9
36	Geometry optimisation of a gravity dust-catcher using computational fluid dynamics simulation. <i>Chemical Engineering and Processing: Process Intensification</i> , 2012, 62, 137-144.	3.6	7

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37	Incorporating dust lift-off into a CFD model of a blast furnace gravity dust-catcher. Applied Mathematical Modelling, 2013, 37, 7891-7904.	4.2	7
38	A coupled finite volume method for the solution of flow processes on complex geometries. International Journal for Numerical Methods in Fluids, 2007, 53, 81-104.	1.6	6
39	An evaluation of sampling methods and supporting techniques for tackling lead in drinking water in Alberta Province. Journal of Water Supply: Research and Technology - AQUA, 2016, 65, 373-383.	1.4	6
40	Combined BEM-CFD Modelling of Tidal Stream Turbines using Site Data. Renewable Energy and Power Quality Journal, 2010, 1, 1560-1565.	0.2	6
41	Development of a radial ventricular assist device using numerical predictions and experimental haemolysis. Medical Engineering and Physics, 2013, 35, 1197-1203.	1.7	5
42	A group based solution strategy for multi-physics simulations in parallel. Applied Mathematical Modelling, 2006, 30, 656-674.	4.2	4
43	An alternative mixed Eulerian Lagrangian approach to high speed collision between solid structures on parallel clusters. Advances in Engineering Software, 2007, 38, 244-255.	3.8	4
44	Performance assessment of a vertical axis turbine in a marine current flume tank and CFD modelling. International Journal of Marine Energy, 2015, 12, 35-45.	1.8	4
45	Dynamic Fluid Structure Interaction in Parallel: A Challenge for Scalability. Computational Science, Engineering and Technology Series, 0, , 329-350.	0.2	4
46	Simulation based aerosol can design under pressure and buckling loads and comparison with experimental trials. Materials & Design, 2013, 52, 214-224.	5.1	3
47	A two-dimensional prototype multi-physics model of the right ventricle of the heart. International Journal for Numerical Methods in Fluids, 2008, 57, 583-600.	1.6	2
48	Multi-component free surface flows and rotating devices in the context of minerals processing. International Journal of Computational Fluid Dynamics, 2009, 23, 93-107.	1.2	2
49	Parallel Performance in Multi-physics Simulation. Lecture Notes in Computer Science, 2002, , 806-815.	1.3	2
50	Visualization of flow past a marine turbine: the information-assisted search for sustainable energy. Computing and Visualization in Science, 2013, 16, 89-103.	1.2	1
51	Comparison of underwater background noise during Spring and Neap tide in a high tidal current site: Ramsey Sound. Proceedings of Meetings on Acoustics, 2014, , .	0.3	1
52	Parallel Computational Fluid Dynamics: Not without its Challenges. , 0, , .		1
53	Computational Modelling of Thermal-Fluid-Structure Interaction Processes. Computational Science, Engineering and Technology Series, 0, , 111-126.	0.2	1
54	Using Mixed Discretisation Schemes in Multi-Physics Simulation. Computational Science, Engineering and Technology Series, 0, , 309-324.	0.2	1

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55	Computational Modelling of Metallurgical Processes: Achievements and Challenges. , 2014, , 359-366.		1
56	Computational Modelling of Metallurgical Processes: Achievements and Challenges. , 2014, , 357-366.		0
57	Computational Modelling of Flows through Rotating Systems. Computational Science, Engineering and Technology Series, 0, , 131-148.	0.2	0
58	Issues in the Design of Computational Software Technology for the Simulation of Closely Coupled Multi-Physics Processes on Parallel Systems. Computational Science, Engineering and Technology Series, 0, , 205-217.	0.2	0
59	Dynamic Fluid Structure Interaction on Parallel Clusters. , 0, , .		0
60	A Mixed Eulerian Lagrangian Approach to High Speed Collision between Solid Structures on Parallel Clusters. , 0, , .		0
61	Using Mixed Discretisation Schemes in Multi-Physics Simulation. , 0, , .		0
62	Computational Modelling of Reactive Porous Media in Hydrometallurgy. Computational Science, Engineering and Technology Series, 0, , 151-171.	0.2	0