Phil Purnell

List of Publications by Year
in descending order

63 papers	5,267 citations	147566 31 h-index	118652 62 g-index
64 all docs	64 docs citations	64 times ranked	5305 citing authors

#	Article	IF	Citations
1	Meeting sustainable development goals via robotics and autonomous systems. Nature Communications, 2022, 13, .	5.8	24
2	A systems thinking approach to understanding the challenges of achieving the circular economy. Environmental Science and Pollution Research, 2021, 28, 24785-24806.	2.7	67
3	Reducing material criticality through circular business models: Challenges in renewable energy. One Earth, 2021, 4, 350-352.	3.6	13
4	A simplified design approach for predicting the flexural behavior of TRM-strengthened RC beams under cyclic loads. Construction and Building Materials, 2021, 285, 122799.	3.2	8
5	Principles for a sustainable circular economy. Sustainable Production and Consumption, 2021, 27, 1437-1457.	5.7	376
6	Digitally enabled modular construction for promoting modular components reuse: A UK view. Journal of Building Engineering, 2021, 42, 102820.	1.6	22
7	Mechanical, chemical, biological: Moving towards closed-loop bio-based recycling in a circular economy of sustainable textiles. Journal of Cleaner Production, 2021, 326, 129325.	4.6	63
8	Developing policies for the end-of-life of energy infrastructure: Coming to terms with the challenges of decommissioning. Energy Policy, 2020, 144, 111677.	4.2	39
9	Highlighting the need to embed circular economy in low carbon infrastructure decommissioning: The case of offshore wind. Sustainable Production and Consumption, 2020, 24, 266-280.	5.7	40
10	Assessing the role and use of recycled aggregates in the sustainable management of construction and demolition waste via a mini-review and a case study. Waste Management and Research, 2020, 38, 460-471.	2.2	24
11	Editorial: Resource Recovery From Waste. Frontiers in Environmental Science, 2020, 8, .	1.5	10
12	Quality of resources: A typology for supporting transitions towards resource efficiency using the single-use plastic bottle as an example. Science of the Total Environment, 2019, 647, 441-448.	3.9	66
13	On a voyage of recovery: a review of the UKâ€™s resource recovery from waste infrastructure. Sustainable and Resilient Infrastructure, 2019, 4, 1-20.	1.7	11
14	Circular economy and the matter of integrated resources. Science of the Total Environment, 2019, 689, 963-969.	3.9	161
15	Circulating blame in the circular economy: The case of wood-waste biofuels and coal ash. Energy Policy, 2019, 129, 168-172.	4.2	27
16	Robotic and autonomous systems for road asset management: a position paper. Proceedings of the Institution of Civil Engineers - Smart Infrastructure and Construction, 2019, 172, 83-93.	1.1	3
17	A Call to Integrate Economic, Social and Environmental Motives into Guidance for Business Support for the Transition to a Circular Economy. Administrative Sciences, 2019, 9, 92.	1.5	14
18	Post-consumer plastic packaging waste in England: Assessing the yield of multiple collection-recycling schemes. Waste Management, 2018, 75, 149-159.	3.7	91

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19	The use of smart technologies in enabling construction components reuse: A viable method or a problem creating solution?. Journal of Environmental Management, 2018, 216, 214-223.	3.8	68
20	Technical properties of biomass and solid recovered fuel (SRF) co-fired with coal: Impact on multi-dimensional resource recovery value. Waste Management, 2018, 73, 535-545.	3.7	73
21	An overview of chemical additives present in plastics: Migration, release, fate and environmental impact during their use, disposal and recycling. Journal of Hazardous Materials, 2018, 344, 179-199.	6.5	2,087
22	Resource recovery and low carbon transitions: The hidden impacts of substituting cement with imported â€˜wasteâ€™ materials from coal and steel production. Global Environmental Change, 2018, 53, 146-156.	3.6	20
23	Co-Producing a Vision and Approach for the Transition towards a Circular Economy: Perspectives from Government Partners. Sustainability, 2018, 10, 1401.	1.6	43
24	Fully integrated modelling for sustainability assessment of resource recovery from waste. Science of the Total Environment, 2018, 612, 613-624.	3.9	57
25	A pathway to circular economy: Developing a conceptual framework for complex value assessment of resources recovered from waste. Journal of Cleaner Production, 2017, 168, 1279-1288.	4.6	176
26	Metrics for optimising the multi-dimensional value of resources recovered from waste in a circular economy: A critical review. Journal of Cleaner Production, 2017, 166, 910-938.	4.6	185
27	Briefing: Resource scarcity and resource security â€“ a suppressed civil engineering challenge. Proceedings of Institution of Civil Engineers: Waste and Resource Management, 2017, 170, 49-52.	0.9	4
28	Resource Recovery from Waste: Restoring the Balance between Resource Scarcity and Waste Overload. Sustainability, 2017, 9, 1603.	1.6	50
29	Mining the physical infrastructure: Opportunities, barriers and interventions in promoting structural components reuse. Science of the Total Environment, 2016, 557-558, 791-807.	3.9	102
30	Is carbon dioxide pricing a driver in concrete mix design?. Magazine of Concrete Research, 2016, 68, 561-567.	0.9	15
31	Microstructure of interface between fibre and matrix in 10-year aged GRC modified by calcium sulfoaluminate cement. Cement and Concrete Research, 2015, 76, 20-26.	4.6	17
32	Towards resource-efficient and service-oriented integrated infrastructure operation. Technological Forecasting and Social Change, 2015, 92, 40-52.	6.2	65
33	Low Carbon Technology Performance vs Infrastructure Vulnerability: Analysis through the Local and Global Properties Space. Environmental Science & Technology, 2014, 48, 12970-12977.	4.6	9
34	Managing Critical Materials with a Technology-Specific Stocks and Flows Model. Environmental Science & Technology, 2014, 48, 1298-1305.	4.6	73
35	Assessing the dynamic material criticality of infrastructure transitions: A case of low carbon electricity. Applied Energy, 2014, 123, 378-386.	5.1	95
36	Briefing: Infrastructure business models, valuation and innovation for local delivery. Infrastructure Asset Management, 2014, 1, 66-67.	1.2	11

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37	Supercritical carbonation of calcareous composites: Influence of mix design. Cement and Concrete Composites, 2013, 43, 12-19.	4.6	15
38	Supercritical carbonation of calcareous composites: Influence of curing. Cement and Concrete Composites, 2013, 43, 48-53.	4.6	19
39	The carbon footprint of reinforced concrete. Advances in Cement Research, 2013, 25, 362-368.	0.7	75
40	Critical materials for infrastructure: local vs global properties. Proceedings of the Institution of Civil Engineers: Engineering Sustainability, 2013, 166, 272-280.	0.4	4
41	Durability models for GRC: uncertainties on strength predictions. Plastics, Rubber and Composites, 2012, 41, 77-87.	0.9	7
42	Response to the Comment on â€œMaterial Nature versus Structural Nurture: The Embodied Carbon of Fundamental Structural Elementsâ€• Environmental Science & Technology, 2012, 46, 3597-3598.	4.6	1
43	Material Nature versus Structural Nurture: The Embodied Carbon of Fundamental Structural Elements. Environmental Science & Technology, 2012, 46, 454-461.	4.6	72
44	Embodied carbon dioxide in concrete: Variation with common mix design parameters. Cement and Concrete Research, 2012, 42, 874-877.	4.6	93
45	Non-destructive evaluation of concrete using a capacitive imaging technique: Preliminary modelling and experiments. Cement and Concrete Research, 2010, 40, 1734-1743.	4.6	50
46	Supercritical carbonation of lime based sustainable structural ceramics. Advances in Applied Ceramics, 2010, 109, 280-286.	0.6	3
47	Current themes in cement research. Advances in Applied Ceramics, 2010, 109, 253-259.	0.6	10
48	Study of strength durability models for GRC: Theoretical overview. Composites Part A: Applied Science and Manufacturing, 2009, 40, 2020-2030.	3.8	7
49	Service life modelling of fibre composites: A unified approach. Composites Science and Technology, 2008, 68, 3330-3336.	3.8	21
50	Pattern recognition of fiber-reinforced plastic failure mechanism using computational intelligence techniques. , 2008, , .		0
51	Reply to comments to the paper â€œAn application of a damage constitutive model to concrete at high temperature and prediction of spallingâ€• by Rosen Tenchev and Phil Purnell [Int. J. Solids Struct. 42 (26) (2005) 6550â€“6565]. International Journal of Solids and Structures, 2007, 44, 4238-4241.	1.3	9
52	The effect of clay content in sands used for cementitious materials in developing countries. Cement and Concrete Research, 2007, 37, 751-758.	4.6	43
53	Humidity and aggregate content correction factors for air-coupled ultrasonic evaluation of concrete. Ultrasonics, 2005, 43, 211-217.	2.1	33
54	An application of a damage constitutive model to concrete at high temperature and prediction of spalling. International Journal of Solids and Structures, 2005, 42, 6550-6565.	1.3	87

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55	Durability and simulated ageing of new matrix glass fibre reinforced concrete. Cement and Concrete Composites, 2005, 27, 875-884.	4.6	71
56	Identification of failure modes in glass/polypropylene composites by means of the primary frequency content of the acoustic emission event. Composites Science and Technology, 2004, 64, 1819-1827.	3.8	243
57	Noncontact ultrasonic diagnostics in concrete: A preliminary investigation. Cement and Concrete Research, 2004, 34, 1185-1188.	4.6	30
58	Formation of thaumasite in synthetic cement mineral slurries. Cement and Concrete Composites, 2003, 25, 857-860.	4.6	13
59	Super-critical carbonation of glass-fibre reinforced cement. Part 2: Microstructural observations. Composites Part A: Applied Science and Manufacturing, 2003, 34, 1105-1112.	3.8	22
60	Preliminary investigations of the dimensional stability of super-critically carbonated glass fibre reinforced cement. Cement and Concrete Research, 2002, 32, 1639-1644.	4.6	9
61	Super-critical carbonation of glass-fibre reinforced cement. Part 1: mechanical testing and chemical analysis. Composites Part A: Applied Science and Manufacturing, 2001, 32, 1777-1787.	3.8	33
62	Microstructural observations in new matrix glass fibre reinforced cement. Cement and Concrete Research, 2000, 30, 1747-1753.	4.6	50
63	Accelerated ageing characteristics of glass-fibre reinforced cement made with new cementitious matrices. Composites Part A: Applied Science and Manufacturing, 1999, 30, 1073-1080.	3.8	38