Sarah L Billington

List of Publications by Year
in descending order

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35 papers	1,803 citations	279487 23 h-index	377514 34 g-index
35 all docs	35 docs citations	35 times ranked	1628 citing authors

#	Article	IF	Citations
1	A Renewable Ligninâ€“Lactide Copolymer and Application in Biobased Composites. ACS Sustainable Chemistry and Engineering, 2013, 1, 1231-1238.	3.2	282
2	A lignin-epoxy resin derived from biomass as an alternative to formaldehyde-based wood adhesives. Green Chemistry, 2018, 20, 1459-1466.	4.6	182
3	Mechanisms and impact of fiberâ€“matrix compatibilization techniques on the material characterization of PHBV/oak wood flour engineered biobased composites. Composites Science and Technology, 2012, 72, 708-715.	3.8	111
4	Tension stiffening in reinforced high performance fiber reinforced cement-based composites. Cement and Concrete Composites, 2014, 50, 36-46.	4.6	104
5	Bond behavior of steel reinforcement in high-performance fiber-reinforced cementitious composite flexural members. Materials and Structures/Materiaux Et Constructions, 2016, 49, 71-86.	1.3	93
6	Unbonded Posttensioned Concrete Bridge Piers. I: Monotonic and Cyclic Analyses. Journal of Bridge Engineering, 2003, 8, 92-101.	1.4	89
7	Investigation of Infill Panels Made from Engineered Cementitious Composites for Seismic Strengthening and Retrofit. Journal of Structural Engineering, 2005, 131, 1712-1720.	1.7	87
8	Influence of Hysteretic Behavior on Equivalent Period and Damping of Structural Systems. Journal of Structural Engineering, 2003, 129, 576-585.	1.7	62
9	Impact of Reinforcement Ratio and Loading Type on the Deformation Capacity of High-Performance Fiber-Reinforced Cementitious Composites Reinforced with Mild Steel. Journal of Structural Engineering, 2016, 142, .	1.7	56
10	Bond behavior and interface modeling of reinforced high-performance fiber-reinforced cementitious composites. Cement and Concrete Composites, 2017, 83, 188-201.	4.6	56
11	Performanceâ€based earthquake engineering assessment of a selfâ€centering, postâ€tensioned concrete bridge system. Earthquake Engineering and Structural Dynamics, 2011, 40, 887-902.	2.5	53
12	Unbonded Posttensioned Concrete Bridge Piers. II: Seismic Analyses. Journal of Bridge Engineering, 2003, 8, 102-111.	1.4	52
13	Title is missing!. International Journal of Fracture, 2002, 115, 101-123.	1.1	49
14	Modeling Residual Displacements of Concrete Bridge Columns under Earthquake Loads Using Fiber Elements. Journal of Bridge Engineering, 2010, 15, 240-249.	1.4	45
15	Modeling the kinetics of water transport and hydroexpansion in a lignocellulose-reinforced bacterial copolyester. Polymer, 2012, 53, 2152-2161.	1.8	43
16	Integrating durability-based service-life predictions with environmental impact assessments of natural fiberâ€reinforced composite materials. Resources, Conservation and Recycling, 2015, 99, 72-83.	5.3	42
17	Predicting the two predominant flexural failure paths of longitudinally reinforced high-performance fiber-reinforced cementitious composite structural members. Engineering Structures, 2019, 199, 109581.	2.6	40
18	Impact of cyclic loading on longitudinally-reinforced UHPC flexural members with different fiber volumes and reinforcing ratios. Engineering Structures, 2021, 241, 112454.	2.6	32

#	Article	IF	Citations
19	Impact of fiber distribution and cyclic loading on the bond behavior of steel-reinforced UHPC. Cement and Concrete Composites, 2022, 126, 104338.	4.6	30
20	Assessment of models for anaerobic biodegradation of a model bioplastic: Poly(hydroxybutyrate-co-hydroxyvalerate). Bioresource Technology, 2017, 227, 205-213.	4.8	29
21	Seismic Retrofit of Steel Moment-Resisting Frames with High-Performance Fiber-Reinforced Concrete Infill Panels: Large-Scale Hybrid Simulation Experiments. Journal of Structural Engineering, 2014, 140, .	1.7	26
22	Gradual Crushing of Steel Reinforced HPFRCC Beams: Experiments and Simulations. Journal of Structural Engineering, 2021, 147, .	1.7	25
23	Simulation of Deformation Capacity in Reinforced High-Performance Fiber-Reinforced Cementitious Composite Flexural Members. Journal of Structural Engineering, 2018, 144, .	1.7	24
24	Impact of UHPC Tensile Behavior on Steel Reinforced UHPC Flexural Behavior. Journal of Structural Engineering, 2022, 148, .	1.7	24
25	Flexural performance of steel-reinforced engineered cementitious composites with different reinforcing ratios and steel types. Construction and Building Materials, 2020, 231, 117159.	3.2	23
26	Experimental testing of reinforced concrete and reinforced ECC flexural members subjected to various cyclic deformation histories. Materials and Structures/Materiaux Et Constructions, 2017, 50, 1.	1.3	22
27	Biocomposite Fiber-Matrix Treatments that Enhance In-Service Performance Can Also Accelerate End-of-Life Fragmentation and Anaerobic Biodegradation to Methane. Journal of Polymers and the Environment, 2018, 26, 1715-1726.	2.4	22
28	Mechanics and failure characteristics of hybrid fiber-reinforced concrete (HyFRC) composites with longitudinal steel reinforcement. Engineering Structures, 2019, 183, 243-254.	2.6	19
29	Experimental Testing of Reinforced ECC Beams Subjected to Various Cyclic Deformation Histories. Journal of Structural Engineering, 2018, 144, .	1.7	18
30	Application of multi-criteria material selection techniques to constituent refinement in biobased composites. Materials & Design, 2013, 52, 1043-1051.	5.1	15
31	Incorporating spatiotemporal effects and moisture diffusivity into a multi-criteria materials selection methodology for woodâ€“polymer composites. Construction and Building Materials, 2014, 71, 589-601.	3.2	14
32	Experimental Response of Precast Infill Panel Connections and Panels Made with DFRCC. Journal of Advanced Concrete Technology, 2003, 1, 327-333.	0.8	12
33	Methodology to assess end-of-life anaerobic biodegradation kinetics and methane production potential for composite materials. Composites Part A: Applied Science and Manufacturing, 2017, 95, 388-399.	3.8	12
34	Influence of carbon feedstock on potentially net beneficial environmental impacts of bio-based composites. Journal of Cleaner Production, 2016, 132, 266-278.	4.6	8
35	Comparison of Retrofitting Techniques for Existing Steel Moment Resisting Frames. , 2009, , .		2