Pedro Serna

List of Publications by Year
in descending order

77 papers	4,609 citations	172207 29 h-index	98622 67 g-index
82 all docs	82 docs citations	82 times ranked	4371 citing authors

#	Article	IF	Citations
1	Chemoselective Hydrogenation of Nitro Compounds with Supported Gold Catalysts. Science, 2006, 313, 332-334.	6.0	1,383
2	A Review of Selfâ€Healing Concrete for Damage Management of Structures. Advanced Materials Interfaces, 2018, 5, 1800074.	1.9	412
3	Creep and shrinkage of recycled aggregate concrete. Construction and Building Materials, 2009, 23, 2545-2553.	3.2	325
4	Transforming Nano Metal Nonselective Particulates into Chemoselective Catalysts for Hydrogenation of Substituted Nitrobenzenes. ACS Catalysis, 2015, 5, 7114-7121.	5.5	240
5	Self-healing capability of concrete with crystalline admixtures in different environments. Construction and Building Materials, 2015, 86, 1-11.	3.2	229
6	Effect of crystalline admixtures on the self-healing capability of early-age concrete studied by means of permeability and crack closing tests. Construction and Building Materials, 2016, 114, 447-457.	3.2	209
7	Experimental characterization of the self-healing capacity of cement based materials and its effects on the material performance: A state of the art report by COST Action SARCOS WG2. Construction and Building Materials, 2018, 167, 115-142.	3.2	183
8	Influence of recycled aggregate quality and proportioning criteria on recycled concrete properties. Waste Management, 2009, 29, 3022-3028.	3.7	123
9	Chemoselective Synthesis of Substituted Imines, Secondary Amines, and Î²â€Amino Carbonyl Compounds from Nitroaromatics through Cascade Reactions on Gold Catalysts. Chemistry - A European Journal, 2009, 15, 8196-8203.	1.7	77
10	Structural cast-in-place SFRC: technology, control criteria and recent applications in spain. Materials and Structures/Materiaux Et Constructions, 2009, 42, 1233-1246.	1.3	63
11	Failure modes and shear design of prestressed hollow core slabs made of fiber-reinforced concrete. Composites Part B: Engineering, 2013, 45, 952-964.	5.9	62
12	Bond of reinforcing bars to steel fiber reinforced concrete. Construction and Building Materials, 2016, 105, 275-284.	3.2	61
13	Influence of concrete matrix and type of fiber on the shear behavior of self-compacting fiber reinforced concrete beams. Composites Part B: Engineering, 2015, 75, 135-147.	5.9	60
14	Influence of limestone filler and viscosity-modifying admixture on the shrinkage of self-compacting concrete. Cement and Concrete Research, 2012, 42, 583-592.	4.6	58
15	Prestress losses evaluation in prestressed concrete prismatic specimens. Engineering Structures, 2013, 48, 704-715.	2.6	55
16	An experimental study on the shear behaviour of reinforced concrete beams with macro-synthetic fibres. Construction and Building Materials, 2018, 169, 888-899.	3.2	55
17	Shear behavior of prestressed precast beams made of self-compacting fiber reinforced concrete. Construction and Building Materials, 2013, 45, 145-156.	3.2	53
18	A simplified five-point inverse analysis method to determine the tensile properties of UHPFRC from unnotched four-point bending tests. Composites Part B: Engineering, 2016, 91, 189-204.	5.9	51

#	Article	IF	Citations
19	Flexural creep of steel fiber reinforced concrete in the cracked state. Construction and Building Materials, 2014, 65, 321-329.	3.2	48
20	Effects of concrete composition on transmission length of prestressing strands. Construction and Building Materials, 2012, 27, 350-356.	3.2	47
21	An inverse analysis method based on deflection to curvature transformation to determine the tensile properties of UHPFRC. Materials and Structures/Materiaux Et Constructions, 2015, 48, 3703-3718.	1.3	44
22	Bond of 13mm prestressing steel strands in pretensioned concrete members. Engineering Structures, 2012, 41, 403-412.	2.6	42
23	Strand bond performance in prestressed concrete accounting for bond slip. Engineering Structures, 2013, 51, 236-244.	2.6	41
24	Preparation of substituted anilines from nitro compounds by using supported gold catalysts. Nature Protocols, 2006, 1, 2590-2595.	5.5	40
25	Test method for determination of the transmission and anchorage lengths in prestressed reinforcement. Magazine of Concrete Research, 2006, 58, 21-29.	0.9	37
26	A Test Method to Characterize Flexural Creep Behaviour of Pre-cracked FRC Specimens. Experimental Mechanics, 2012, 52, 1067-1078.	1.1	35
27	An experimental study of steel fiber-reinforced high-strength concrete slender columns under cyclic loading. Engineering Structures, 2013, 57, 565-577.	2.6	32
28	Time-dependent evolution of strand transfer length in pretensioned prestressed concrete members. Mechanics of Time-Dependent Materials, 2013, 17, 501-527.	2.3	31
29	First Ultra-High-Performance Fibre-Reinforced Concrete Footbridge in Spain: Design and Construction. Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE), 2014, 24, 101-104.	0.5	30
30	Experimental study on the steel-fibre contribution to concrete shear behaviour. Construction and Building Materials, 2016, 112, 100-111.	3.2	29
31	Influence of concrete composition on anchorage bond behavior of prestressing reinforcement. Construction and Building Materials, 2013, 48, 1156-1164.	3.2	27
32	Splitting of concrete cover in steel fiber reinforced concrete: Semi-empirical modeling and minimum confinement requirements. Construction and Building Materials, 2014, 66, 743-751.	3.2	26
33	Experimental Technique for Measuring the Longâ€term Transfer Length in Prestressed Concrete. Strain, 2013, 49, 125-134.	1.4	25
34	Slip distribution model along the anchorage length of prestressing strands. Engineering Structures, 2014, 59, 674-685.	2.6	25
35	A material-performance-based database for FRC and RC elements under shear loading. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	24
36	Concrete Early-Age Crack Closing by Autogenous Healing. Sustainability, 2020, 12, 4476.	1.6	24

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37	Self-healing efficiency of Ultra High-Performance Fiber-Reinforced Concrete through permeability to chlorides. Construction and Building Materials, 2021, 310, 125168.	3.2	23
38	Modified pushâ€off test for analysing the shear behaviour of concrete cracks. Strain, 2017, 53, e12239.	1.4	21
39	Singleâ€Site vs. Cluster Catalysis in High Temperature Oxidations. Angewandte Chemie - International Edition, 2021, 60, 15954-15962.	7.2	21
40	Transfer and Development Lengths of Concentrically Prestressed Concrete. PCI Journal, 2006, 51, 74-85.	0.4	20
41	Understanding the Impacts of Healing Agents on the Properties of Fresh and Hardened Self-Healing Concrete: A Review. Processes, 2021, 9, 2206.	1.3	18
42	Structural effects of FRC creep. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	17
43	Shear Behavior of Self-Compacting Concrete and Fiber-Reinforced Concrete Push-Off Specimens. , 2010, , 429-438.		16
44	Creep and residual properties of cracked macro-synthetic fibre reinforced concretes. Magazine of Concrete Research, 2016, 68, 197-207.	0.9	14
45	Measuring specific parameters in pretensioned concrete members using a single testing technique. Measurement: Journal of the International Measurement Confederation, 2014, 49, 421-432.	2.5	13
46	Self-healing concrete-What Is it Good For?. Materiales De Construccion, 2021, 71, e237.	0.2	13
47	Autogenous Self-Healing Capacity of Early-Age Ultra-High-Performance Fiber-Reinforced Concrete. Sustainability, 2021, 13, 3061.	1.6	13
48	Effect of crack pattern on the self-healing capability in traditional, HPC and UHPFRC concretes measured by water and chloride permeability. MATEC Web of Conferences, 2019, 289, 01006.	0.1	12
49	Long-term behavior of cracked fiber reinforced concrete under service conditions. Construction and Building Materials, 2019, 196, 649-658.	3.2	11
50	Flexural and compressive creep behavior of UHPFRC specimens. Construction and Building Materials, 2020, 244, 118254.	3.2	8
51	An Overview on H2020 Project â€œReSHEALienceâ€. IABSE Symposium Report, 2019, , .	0.0	8
52	Tensile behaviour of reinforced UHPFRC elements under serviceability conditions. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	7
53	Size Effect on Strand Bond and Concrete Strains at Prestress Transfer. ACI Structural Journal, 2014, 111, .	0.3	7
54	Characterization of Glass Powder from Glass Recycling Process Waste and Preliminary Testing. Materials, 2021, 14, 2971.	1.3	6

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55	A Study of the Flexural Behavior of Fiber-Reinforced Concretes Exposed to Moderate Temperatures. Materials, 2021, 14, 3522.	1.3	5
56	Serviceability behaviour of reinforced UHPFRC tensile elements: Assessment of the ratio between maximum and average crack widths. Construction and Building Materials, 2021, 303, 124513.	3.2	5
57	Bond of Reinforcement in Concrete Applied to Concrete Quality Control: The Bottle Bond Test. Strain, 2014, 50, 57-67.	1.4	4
58	A testing method for studying the serviceability behavior of reinforced UHPFRC tensile ties. IOP Conference Series: Materials Science and Engineering, 2019, 596, 012022.	0.3	4
59	Influence of Cracking on Oxygen Transport in UHPFRC Using Stainless Steel Sensors. Applied Sciences (Switzerland), 2020, 10, 239.	1.3	4
60	Experimental methodology on the serviceability behaviour of reinforced ultraâ€high performance fibre reinforced concrete tensile elements. Strain, 2020, 56, e12361.	1.4	3
61	The Effect of Fiber Content on the Post-cracking Tensile Stiffness Capacity of R-UHPFRC. RILEM Bookseries, 2021, , 1112-1123.	0.2	3
62	Recommendation of RILEM TC 261-CCF: test method to determine the flexural creep of fibre reinforced concrete in the cracked state. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	2
63	UHPFRC Bolted Joints: Failure Modes of a New Simple Connection System. RILEM Bookseries, 2012, , 421-428.	0.2	2
64	Effect of Residual Strength Parameters on FRC Flexural Creep: Multivariate Analysis. RILEM Bookseries, 2017, , 141-153.	0.2	2
65	Preliminary study on the fresh and mechanical properties of UHPC made with recycled UHPC aggregates. European Journal of Environmental and Civil Engineering, 2022, 26, 7427-7442.	1.0	2
66	Database on the Long-Term Behaviour of FRC: A Useful Tool to Achieve Overall Conclusions. , 2015, , .		1
67	Experimental Characterization of the Tensile Constitutive Behaviour of Ultra-High Performance Concretes: Effect of Cement and Fibre Type. RILEM Bookseries, 2022, , 936-946.	0.2	1
68	Finite Element Modelling of UHPFRC Flexural-Reinforced Elements. RILEM Bookseries, 2021, , 639-650.	0.2	1
69	Numerical Modelling of Fiber-Reinforced Concrete Shear-Critical Beams. RILEM Bookseries, 2021, , 670-680.	0.2	1
70	Influence of Fibre Reinforcement on the Long-Term Behaviour of Cracked Concrete. RILEM Bookseries, 2017, , 195-209.	0.2	1
71	Interfacial Transition Zone in Mature Fiber-Reinforced Concretes. ACI Materials Journal, 2018, 115, .	0.3	1
72	Influence of confinement on high strength concrete behavior. Materials and Structures/Materiaux Et Constructions, 2003, 36, 439-447.	1.3	1

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73	Footbridge over the Ovejas ravine in Alicante: An economical alternative made only of ultra-high-performance fibre-reinforced concrete (UHPFRC). Fibre-reinforced Concrete: From Design To Structural Applications, 2017, , 435-350.	0.0	1
74	Preliminary Study of the Fresh and Hard Properties of UHPC That Is Used to Produce 3D Printed Mortar. Materials, 2022, 15, 2750.	1.3	1
75	Effect of healing agents on the rheological properties of cement paste and compatibility with superplasticizer. MATEC Web of Conferences, 2022, 361, 05008.	0.1	1
76	An Analytical Study of Shear Transfer Mechanisms in Macro-synthetic Fibre Reinforced Concrete. RILEM Bookseries, 2022, , 409-419.	0.2	0
77	Structural Design and Previous Tests for a Retaining Wall Made with Precast Elements of UHPFRC. RILEM Bookseries, 2012, , 437-444.	0.2	0