Lei Zhu

List of Publications by Year
in descending order

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60 papers	1,220 citations	331670 21 h-index	414414 32 g-index
60 all docs	60 docs citations	60 times ranked	995 citing authors

#	Article	IF	Citations
1	Controlling the Secondary Surface Morphology of Electrospun PVDF Nanofibers by Regulating the Solvent and Relative Humidity. Nanoscale Research Letters, 2018, 13, 285.	5.7	76
2	Controlling the surface structure, mechanical properties, crystallinity, and piezoelectric properties of electrospun PVDF nanofibers by maneuvering molecular weight. Soft Materials, 2019, 17, 181-189.	1.7	71
3	A Review on the Secondary Surface Morphology of Electrospun Nanofibers: Formation Mechanisms, Characterizations, and Applications. ChemistrySelect, 2020, 5, 1335-1348.	1.5	64
4	Behavior Insights for an Incentive-Based Active Demand Management Platform. International Journal of Transportation Science and Technology, 2015, 4, 119-133.	3.6	54
5	Fabrication of a polyvinylidene fluoride cactus-like nanofiber through one-step electrospinning. RSC Advances, 2018, 8, 42353-42360.	3.6	49
6	Data-driven fuel consumption estimation: A multivariate adaptive regression spline approach. Transportation Research Part C: Emerging Technologies, 2017, 83, 134-145.	7.6	47
7	A mini review on the generation of crimped ultrathin fibers via electrospinning: Materials, strategies, and applications. Polymers for Advanced Technologies, 2020, 31, 1449-1462.	3.2	47
8	A review on piezoelectric fibers and nanowires for energy harvesting. Journal of Industrial Textiles, 2021, 51, 297-340.	2.4	46
9	Quantifying uncertainty in short-term traffic prediction and its application to optimal staffing plan development. Transportation Research Part C: Emerging Technologies, 2018, 92, 323-348.	7.6	44
10	Maneuvering surface structures of polyvinylidene fluoride nanofibers by controlling solvent systems and polymer concentration. Textile Reseach Journal, 2019, 89, 2406-2422.	2.2	43
11	Use of Shared Automated Vehicles for First-Mile Last-Mile Service: Micro-Simulation of Rail-Transit Connections in Austin, Texas. Transportation Research Record, 2021, 2675, 135-149.	1.9	39
12	Trajectory Segmentation Map-Matching Approach for Large-Scale, High-Resolution GPS Data. Transportation Research Record, 2017, 2645, 67-75.	1.9	38
13	Preparation of nanostructured Cu(OH)₂ and CuO electrocatalysts for water oxidation by electrophoresis deposition. Journal of Materials Research, 2018, 33, 581-589.	2.6	33
14	Direct Electrospinning of Ultrafine Fibers with Interconnected Macropores Enabled by in Situ Mixing Microfluidics. ACS Applied Materials & Interfaces, 2016, 8, 34870-34878.	8.0	31
15	Mussel-inspired soft-tissue adhesive based on poly(diol citrate) with catechol functionality. Journal of Materials Science: Materials in Medicine, 2016, 27, 30.	3.6	29
16	Role of concentration polarization in cross flow micellar enhanced ultrafiltration of cadmium with low surfactant concentration. Chemosphere, 2019, 237, 124859.	8.2	29
17	System Design and Optimization of In-Route Wireless Charging Infrastructure for Shared Automated Electric Vehicles. IEEE Access, 2019, 7, 79968-79979.	4.2	28
18	Branched nanofibers with tiny diameters for air filtration via one-step electrospinning. Journal of Industrial Textiles, 2022, 51, 1105S-1117S.	2.4	26

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19	Unexpectedly high oil cleanup capacity of electrospun poly (vinylidene fluoride) fiber webs induced by spindle porous bowl like beads. Soft Materials, 2019, 17, 410-417.	1.7	25
20	Recent Advances in Environmentally Friendly and Green Degumming Processes of Silk for Textile and Non-Textile Applications. Polymers, 2022, 14, 659.	4.5	24
21	Studying Driving Risk Factors using Multi-Source Mobile Computing Data. International Journal of Transportation Science and Technology, 2015, 4, 295-312.	3.6	22
22	Whether others were treated equally affects neural responses to unfairness in the Ultimatum Game. Social Cognitive and Affective Neuroscience, 2015, 10, 461-466.	3.0	22
23	Prediction of Individual Social-Demographic Role Based on Travel Behavior Variability Using Long-Term GPS Data. Journal of Advanced Transportation, 2017, 2017, 1-13.	1.7	22
24	Planning Optimization for Inductively Charged On-Demand Automated Electric Shuttles Project at Greenville, South Carolina. IEEE Transactions on Industry Applications, 2020, 56, 1010-1020.	4.9	21
25	Fabrication of perfect CMCS/PVA nanofibers for keeping food fresh via an in situ mixing electrospinning. Materials Research Express, 2019, 6, 125001.	1.6	19
26	Maneuvering the secondary surface morphology of electrospun poly (vinylidene fluoride) nanofibers by controlling the processing parameters. Materials Research Express, 2020, 7, 015008.	1.6	19
27	Direct generation of electrospun branched nanofibers for energy harvesting. Polymers for Advanced Technologies, 2020, 31, 2659-2666.	3.2	18
28	Transportation Routing Map Abstraction Approach. Transportation Research Record, 2015, 2528, 78-85.	1.9	15
29	A driving cycle detection approach using map service API. Transportation Research Part C: Emerging Technologies, 2018, 92, 349-363.	7.6	15
30	An Automated Vehicle Fuel Economy Benefits Evaluation Framework Using Real-World Travel and Traffic Data. IEEE Intelligent Transportation Systems Magazine, 2019, 11, 29-41.	3.8	15
31	Direct generation of electrospun interconnected macroporous nanofibers using a water bath as a collector. Materials Research Express, 2020, 7, 015082.	1.6	15
32	Characterization of ultrafine copper powder prepared by novel electrodeposition method. Central South University, 2009, 16, 708-712.	0.5	14
33	Fabricating poly(1,8-octanediol citrate) elastomer based fibrous mats via electrospinning for soft tissue engineering scaffold. Journal of Materials Science: Materials in Medicine, 2017, 28, 93.	3.6	13
34	Direct fabrication of electrospun branched nanofibers with tiny diameters for oil absorption. Journal of Dispersion Science and Technology, 2021, 42, 2085-2091.	2.4	13
35	Road network abstraction approach for traffic analysis: framework and numerical analysis. IET Intelligent Transport Systems, 2017, 11, 424-430.	3.0	13
36	Arabidopsis SYP121 acts as an ROP2 effector in the regulation of root hair tip growth. Molecular Plant, 2022, 15, 1008-1023.	8.3	13

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37	A comparative study of electrospun polyvinylidene fluoride and poly(vinylidenefluoride-co-trifluoroethylene) fiber webs: Mechanical properties, crystallinity, and piezoelectric properties. Journal of Engineered Fibers and Fabrics, 2020, 15, 155892502093929.	1.0	10
38	Decision Support Tool for Planning Neighborhood-Scale Deployment of Low-Speed Shared Automated Shuttles. Transportation Research Record, 2020, 2674, 1-14.	1.9	9
39	Navigation Application Programming Interface Route Fuel Saving Opportunity Assessment on Large-Scale Real-World Travel Data for Conventional Vehicles and Hybrid Electric Vehicles. Transportation Research Record, 2018, 2672, 139-149.	1.9	8
40	Proteins from leguminous plants: from structure, property to the function in encapsulation/binding and delivery of bioactive compounds. Critical Reviews in Food Science and Nutrition, 2022, 62, 5203-5223.	10.3	8
41	Map-Matching Compatible with Junction Adjusting in Vehicle Navigation System. Lecture Notes in Electrical Engineering, 2012, , 451-457.	0.4	8
42	Green routing fuel saving opportunity assessment: A case study using large-scale real-world travel data. , 2017, , .		7
43	Trip Energy Estimation Methodology and Model Based on Real-World Driving Data for Green-Routing Applications. Transportation Research Record, 2018, 2672, 41-48.	1.9	7
44	An optimization-based planning tool for on-demand mobility service operations. International Journal of Sustainable Transportation, 2022, 16, 45-56.	4.1	6
45	Shared Automated Mobility with Demand-Side Cooperation: A Proof-of-Concept Microsimulation Study. Sustainability, 2021, 13, 2483.	3.2	6
46	Sensing Technology Survey for Obstacle Detection in Vegetation. Future Transportation, 2021, 1, 672-685.	2.3	6
47	Quantifying the Mobility and Energy Benefits of Automated Mobility Districts Using Microscopic Traffic Simulation. , 2018, , .		5
48	How realistic is static traffic assignment? Analyzing automatic number-plate recognition data and image processing of real-time traffic maps for investigation. Transportation Research Interdisciplinary Perspectives, 2021, 9, 100320.	2.7	5
49	A Map-Matching Method Using Intersection-Based Parallelogram Criterion. Advanced Materials Research, 0, 403-408, 2746-2750.	0.3	4
50	Effect of the Coriolis Force on Salt Dynamics in Convergent Partially Mixed Estuaries. Journal of Geophysical Research: Oceans, 2021, 126, e2021JC017391.	2.6	4
51	CED-Net: contextual encoderâ€“decoder network for 3D face reconstruction. Multimedia Systems, 2022, 28, 1713-1722.	4.7	4
52	Generating a Spatiotemporal Dynamic Map for Traffic Analysis Using Macroscopic Fundamental Diagram. Journal of Advanced Transportation, 2019, 2019, 1-15.	1.7	3
53	Optimum Planning for Inductively Charged On-demand Automated Electric Shuttles at Greenville, South Carolina. , 2019, , .		3
54	Safe Operations at Roadway Junctions - Design Principles from Automated Guideway Transit. , 0, , .		2

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55	Identifying Light-Duty Vehicle Travel from Large-Scale Multimodal Wearable GPS Data with Novelty Detection Algorithms. , 2021, , .		1
56	Light-Duty Vehicle Trip Classification Using One-Class Novelty Detection and Exhaustive Feature Extraction. IEEE Transactions on Industry Applications, 2022, 58, 3936-3945.	4.9	1
57	Sustainable silk dyeing in a silicon non-aqueous dyeing system with Reactive Red 195: salt-free and less alkali. Textile Reseach Journal, 2022, 92, 4921-4932.	2.2	1
58	Probabilistic Convergent Hough Transform. , 2008, , .		0
59	Impact of nonpoint source pollution on water quality of the Bahe River. , 2011, , .		0
60	A Scale-Dynamic Network Abstraction Approach for Traffic Analysis. , 2019, , .		0