Tarmo Tamm

List of Publications by Year
in descending order

104 papers	2,146 citations	257101 24 h-index	264894 42 g-index
105 all docs	105 docs citations	105 times ranked	2526 citing authors

#	Article	IF	Citations
1	Quantitative Measures of Solvent Polarity. Chemical Reviews, 2004, 104, 175-198.	23.0	385
2	QSPR Studies on Vapor Pressure, Aqueous Solubility, and the Prediction of Waterâˆ'Air Partition Coefficients. Journal of Chemical Information and Computer Sciences, 1998, 38, 720-725.	2.8	152
3	Comparative study of the behavior of anions in polypyrrole films. Electrochimica Acta, 2005, 50, 1523-1528.	2.6	86
4	In search of better electroactive polymer actuator materials: PPy versus PEDOT versus PEDOTâ€“PPy composites. Smart Materials and Structures, 2013, 22, 104006.	1.8	76
5	Ionic electroactive polymer artificial muscles in space applications. Scientific Reports, 2014, 4, 6913.	1.6	64
6	Anisometric charge dependent swelling of porous carbon in an ionic liquid. Electrochemistry Communications, 2013, 34, 196-199.	2.3	59
7	Study of the factors determining the mobility of ions in the polypyrrole films doped with aromatic sulfonate anions. Electrochimica Acta, 2008, 53, 3828-3835.	2.6	54
8	Combined chemical and electrochemical synthesis methods for metal-free polypyrrole actuators. Sensors and Actuators B: Chemical, 2012, 166-167, 411-418.	4.0	54
9	Prediction of Cell-Penetrating Peptides Using Artificial Neural Networks. Current Computer-Aided Drug Design, 2010, 6, 79-89.	0.8	49
10	QSPR Treatment of Solvent Scales. Journal of Chemical Information and Computer Sciences, 1999, 39, 684-691.	2.8	43
11	A Unified Treatment of Solvent Properties. Journal of Chemical Information and Computer Sciences, 1999, 39, 692-698.	2.8	41
12	Renewable antioxidant properties of suspensible chitosanâ€“polypyrrole composites. Reactive and Functional Polymers, 2013, 73, 1072-1077.	2.0	41
13	Thin ink-jet printed trilayer actuators composed of PEDOT:PSS on interpenetrating polymer networks. Sensors and Actuators B: Chemical, 2018, 258, 1072-1079.	4.0	40
14	Influence of Anions on Electrochemical Properties of Polypyrrole-Modified Electrodes. Russian Journal of Electrochemistry, 2002, 38, 182-187.	0.3	32
15	Electrochemical properties of the polypyrrole films doped with benzenesulfonate. Synthetic Metals, 2007, 157, 66-73.	2.1	32
16	Parametrization of nanoparticles: development of full-particle nanodescriptors. Nanoscale, 2016, 8, 16243-16250.	2.8	30
17	Physical Confinement Impacts Cellular Phenotypes within Living Materials. ACS Applied Bio Materials, 2020, 3, 4273-4281.	2.3	30
18	Influence of ion-exchange on the electrochemical properties of polypyrrole films. Electrochimica Acta, 2014, 122, 79-86.	2.6	29

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19	In Silico Design of Optimal Dissolution Kinetics of Feâ€Doped ZnO Nanoparticles Results in Cancerâ€Specific Toxicity in a Preclinical Rodent Model. Advanced Healthcare Materials, 2017, 6, 1601379.	3.9	29
20	Cellâ€Laden Hydrogels for Multikingdom 3D Printing. Macromolecular Bioscience, 2020, 20, e2000121.	2.1	29
21	Electro-chemo-mechanical deformation properties of polypyrrole/dodecylbenzenesulfate linear actuators in aqueous and organic electrolyte. RSC Advances, 2016, 6, 96484-96489.	1.7	28
22	Conducting polymer actuators formed on MWCNT and PEDOT-PSS conductive coatings. Synthetic Metals, 2013, 171, 69-75.	2.1	27
23	Application of the QSPR Approach to the Boiling Points of Azeotropes. Journal of Physical Chemistry A, 2011, 115, 3475-3479.	1.1	26
24	On the Unexpected Cation Exchange Behavior, Caused by Covalent Bond Formation between PEDOT and Cl^{â€“} Ions: Extending the Conception for the Polymerâ€“Dopant Interactions. Journal of Physical Chemistry B, 2012, 116, 5491-5500.	1.2	26
25	Carbide-derived carbon in polypyrrole changing the elastic modulus with a huge impact on actuation. RSC Advances, 2016, 6, 26380-26385.	1.7	25
26	Comparative Analysis of Fluorinated Anions for Polypyrrole Linear Actuator Electrolytes. Polymers, 2019, 11, 849.	2.0	25
27	Direct chemical synthesis of pristine polypyrrole hydrogels and their derived aerogels for high power density energy storage applications. Journal of Materials Chemistry A, 2013, 1, 15216.	5.2	24
28	Fe-Doped ZnO nanoparticle toxicity: assessment by a new generation of nanodescriptors. Nanoscale, 2018, 10, 21985-21993.	2.8	23
29	Molecular dynamics modeling the Li-PolystyreneTFSI/PEO blend. Solid State Ionics, 2014, 262, 769-773.	1.3	22
30	Inkjetâ€printed hybrid conducting polymer-activated carbon aerogel linear actuators driven in an organic electrolyte. Sensors and Actuators B: Chemical, 2017, 250, 44-51.	4.0	21
31	Polypyrrole linear actuation tuned by phosphotungstic acid. Sensors and Actuators B: Chemical, 2017, 247, 742-748.	4.0	21
32	Enhancement of polypyrrole linear actuation with poly(ethylene oxide). Synthetic Metals, 2017, 232, 1-7.	2.1	21
33	QSAR study of pharmacological permeabilities. Arkivoc, 2009, 2009, 218-238.	0.3	20
34	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. PLoS ONE, 2020, 15, e0232851.	1.1	19
35	Hardware and Software Development for Isotonic Strain and Isometric Stress Measurements of Linear Ionic Actuators. Polymers, 2019, 11, 1054.	2.0	18
36	Identification of several high-risk HPV inhibitors and drug targets with a novel high-throughput screening assay. PLoS Pathogens, 2017, 13, e1006168.	2.1	18

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37	Theoretical study of the effect of counterions on the structure of pyrrole oligomers. International Journal of Quantum Chemistry, 2002, 88, 296-301.	1.0	17
38	Study of the Properties of Electrodeposited Polypyrrole Films. Russian Journal of Electrochemistry, 2004, 40, 344-348.	0.3	16
39	Electromechanically active polymer actuators based on biofriendly choline ionic liquids. Smart Materials and Structures, 2020, 29, 055021.	1.8	16
40	Two formation mechanisms and renewable antioxidant properties of suspensible chitosanâ€“PPy and chitosanâ€“PPyâ€“BTDA composites. Synthetic Metals, 2013, 164, 6-11.	2.1	15
41	Role of polymerization temperature on the performance of polypyrrole/dodecylbenzenesulphonate linear actuators. Synthetic Metals, 2019, 247, 53-58.	2.1	15
42	Polypyrroleâ€coated fiberâ€scaffolds: Concurrent linear actuation and sensing. Journal of Applied Polymer Science, 2020, 137, 48533.	1.3	15
43	Carbide-derived carbon as active interlayer of polypyrrole tri-layer linear actuator. Sensors and Actuators B: Chemical, 2014, 201, 100-106.	4.0	14
44	Electrochemistry of interlayer supported polypyrrole tri-layer linear actuators. Electrochimica Acta, 2014, 122, 322-328.	2.6	14
45	Fragment-Based Development of HCV Protease Inhibitors for the Treatment of Hepatitis C. Current Computer-Aided Drug Design, 2012, 8, 55-61.	0.8	13
46	Molecular dynamics simulations of EMI-BF4 in nanoporous carbon actuators. Journal of Molecular Modeling, 2012, 18, 1541-1552.	0.8	13
47	Lifetime measurements of ionic electroactive polymer actuators. Journal of Intelligent Material Systems and Structures, 2014, 25, 2267-2275.	1.4	12
48	Correlation of blood-brain penetration and human serum albumin binding with theoretical descriptors. Arkivoc, 2009, 2008, 38-60.	0.3	12
49	Role of polyethylene oxide content in polypyrrole linear actuators. Materials Today Communications, 2020, 23, 100908.	0.9	11
50	Metabolism Control in 3D-Printed Living Materials Improves Fermentation. ACS Applied Bio Materials, 2021, 4, 7195-7203.	2.3	11
51	Encapsulation of ionic electromechanically active polymer actuators. Smart Materials and Structures, 2019, 28, 074002.	1.8	10
52	Understanding the Behavior of Fully Non-Toxic Polypyrrole-Gelatin and Polypyrrole-PVdF Soft Actuators with Choline Ionic Liquids. Actuators, 2020, 9, 40.	1.2	10
53	Chitosan Combined with Conducting Polymers for Novel Functionality: Antioxidant and Antibacterial Activity. Key Engineering Materials, 2014, 605, 428-431.	0.4	9
54	Optimal phosphotungstinate concentration for polypyrrole linear actuation and energy storage. Multifunctional Materials, 2018, 1, 014003.	2.4	9

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55	Influence of solvent on linear polypyrroleâ€“polyethylene oxide actuators. Journal of Applied Polymer Science, 2018, 135, 46831.	1.3	9
56	Electrochemomechanical Behavior of Polypyrrole-Coated Nanofiber Scaffolds in Cell Culture Medium. Polymers, 2019, 11, 1043.	2.0	9
57	Cellulose-Multiwall Carbon Nanotube Fiber Actuator Behavior in Aqueous and Organic Electrolyte. Materials, 2020, 13, 3213.	1.3	9
58	The Use of Laminates of Commercially Available Fabrics for Anti-Stab Body-Armor. Polymers, 2021, 13, 1077.	2.0	9
59	A quantum-mechanical study of oxidized oligopyrroles. International Journal of Quantum Chemistry, 1999, 71, 101-109.	1.0	8
60	Redoping â€” A simple way to enhance the redoxcapacity of polypyrrole films. Electrochemistry Communications, 2010, 12, 1180-1183.	2.3	8
61	Effect of contact material and ambient humidity on the performance of MWCNT/PDMS multimodal deformation sensors. Sensors and Actuators A: Physical, 2018, 283, 1-8.	2.0	8
62	Mechanical and electro-mechanical properties of EAP actuators with inkjet printed electrodes. Synthetic Metals, 2018, 246, 122-127.	2.1	8
63	Polypyrrole/carbide-derived carbon composite in organic electrolyte: Characterization as a linear actuator. Reactive and Functional Polymers, 2018, 131, 414-419.	2.0	8
64	Consistent response from conducting polymer actuators: Potential window and embedded charges to avoid mixed ion transport. Synthetic Metals, 2020, 268, 116502.	2.1	8
65	Multifunctionality of Polypyrrole Polyethyleneoxide Composites: Concurrent Sensing, Actuation and Energy Storage. Polymers, 2020, 12, 2060.	2.0	8
66	Complexes of oligopyrrole dications with inorganic anions: a comparative theoretical HF/post-HF study. Synthetic Metals, 2005, 149, 47-52.	2.1	7
67	Subchronic Oral and Inhalation Toxicities: a Challenging Attempt for Modeling and Prediction. Molecular Informatics, 2013, 32, 793-801.	1.4	7
68	Improving the Electrochemical Performance and Stability of Polypyrrole by Polymerizing Ionic Liquids. Polymers, 2020, 12, 136.	2.0	7
69	An Integrated Data-Driven Strategy for Safe-by-Design Nanoparticles: The FP7 MODERN Project. Advances in Experimental Medicine and Biology, 2017, 947, 257-301.	0.8	6
70	Polypyrrole coatings on gelatin fiber scaffolds: Material and electrochemical characterizations in organic and aqueous electrolyte. Synthetic Metals, 2017, 232, 25-30.	2.1	6
71	Force field generation and molecular dynamics simulations of Li+â€“Nafion. Electrochimica Acta, 2010, 55, 2587-2591.	2.6	5
72	Smart insole sensors for sports and rehabilitation. Proceedings of SPIE, 2014, , .	0.8	5

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73	Antagonist Concepts of Polypyrrole Actuators: Bending Hybrid Actuator and Mirrored Trilayer Linear Actuator. Polymers, 2021, 13, 861.	2.0	5
74	Solvent effects on carbide-derived-carbon trilayer bending actuators. Synthetic Metals, 2019, 247, 170-176.	2.1	4
75	A Biomimetic Approach to Increasing Soft Actuator Performance by Friction Reduction. Polymers, 2020, 12, 1120.	2.0	4
76	Printed PEDOT:PSS Trilayer: Mechanism Evaluation and Application in Energy Storage. Materials, 2020, 13, 491.	1.3	4
77	A New Direction in Microfluidics: Printed Porous Materials. Micromachines, 2021, 12, 671.	1.4	4
78	Wider Potential Windows of Cellulose Multiwall Carbon Nanotube Fibers Leading to Qualitative Multifunctional Changes in an Organic Electrolyte. Polymers, 2021, 13, 4439.	2.0	4
79	PEDOT-PSS/MWCNT coatings on PET for conducting polymer actuators. International Journal of Nanotechnology, 2014, 11, 477.	0.1	3
80	Electrochemomechanical deformation (ECMD) of PPyDBS in free standing film formation and trilayer designs. , 2014, , .		3
81	Encapsulation of ionic electroactive polymers: reducing the interaction with environment. Proceedings of SPIE, 2016, , .	0.8	3
82	Fabrication of Carbon-Based Ionic Electromechanically Active Soft Actuators. Journal of Visualized Experiments, 2020, , .	0.2	3
83	Polypyrrole and poly(3,4-ethylenedioxythiophene) on silicon cantilever: Role of formation potential in bending displacement. Synthetic Metals, 2021, 271, 116653.	2.1	3
84	Development of A Smart Insole System for Gait and Performance Monitoring. , 0, , .		3
85	The importance of potential range choice on the electromechanical response of cellulose - carbon nanotube fibers. Synthetic Metals, 2022, 283, 116966.	2.1	3
86	Development of soft and compliant multimodal deformation sensors. Sensors and Actuators A: Physical, 2016, 252, 42-47.	2.0	2
87	Actuation increase in polypyrrole bilayer by photo-activated dopants. Synthetic Metals, 2018, 246, 57-63.	2.1	2
88	Carbide-derived carbon and poly-3,4-ethylenedioxythiphene composite laminate: linear and bending actuation. Synthetic Metals, 2018, 245, 67-73.	2.1	2
89	A Kirigami Approach of Patterning Membrane Actuators. Polymers, 2021, 13, 125.	2.0	2
90	Embedded Carbide-derived Carbon (CDC) particles in polypyrrole (PPy) for linear actuator. Proceedings of SPIE, 2016, , .	0.8	1

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91	Carbonâ€“carbon double bond isomerization in heterocyclic hydrazine derivatives. Chemistry of Heterocyclic Compounds, 2018, 54, 572-575.	0.6	1
92	Theoretical Modeling of HPV: QSAR and Novodesign with Fragment Approach. Current Computer-Aided Drug Design, 2015, 10, 303-314.	0.8	1
93	Dual function composite fibers of cellulose with activated carbon aerogel and carbide derived carbon. Journal of Applied Polymer Science, 0, , 52297.	1.3	1
94	Kinetics of catalyzed dehydrocondensation of hydrogen functionalized siloxane. Journal of Applied Polymer Science, 0, , 52304.	1.3	1
95	Tuning the linear actuation of multiwall carbon nanotube fibers with carbide-derived carbon. Synthetic Metals, 2022, 288, 117099.	2.1	1
96	Quantitative Measures of Solvent Polarity. ChemInform, 2004, 35, no.	0.1	0
97	A new force field for molecular dynamics studies of Li⁺and Na⁺-nafion. Proceedings of SPIE, 2008, , .	0.8	0
98	PEDOT/TBACF3SO3bending actuators based on a PEDOT-PEDOT sandwich complex. , 2013, , .		0
99	Carbide-derived carbon (CDC) linear actuator properties in combination with conducting polymers. Proceedings of SPIE, 2014, , .	0.8	0
100	Ion Mobility in Thick and Thin Poly-3,4 Ethylenedioxythiophene Filmsâ€"From EQCM to Actuation. Polymers, 2021, 13, 2448.	2.0	0
101	Solvent change in polymerization influence linear actuation of polypyrrole carbide-derived carbon films. , 2018, , .		0
102	Poly-3,4-ethylenedixoythiophene on carbide-derived carbon trilayer: combined linear actuation characterization. , 2018, , .		0
103	Polypyrrole polymerized in polyethylene oxide: linear actuation in organic and aqueous electrolytes. , 2018, , .		0
104	A Self-Commutated Helical Polypyrrole Actuator Fabricated by Filament Patterning. IEEE Robotics and Automation Letters, 2022, 7, 5858-5865.	3.3	0