

# Tarmo Tamm

## List of Publications by Year in descending order

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104  
papers

2,146  
citations

257450

24  
h-index

265206

42  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2526  
citing authors

#	ARTICLE	IF	CITATIONS
1	Quantitative Measures of Solvent Polarity. <i>Chemical Reviews</i> , 2004, 104, 175-198.	47.7	385
2	QSPR Studies on Vapor Pressure, Aqueous Solubility, and the Prediction of Water-Air Partition Coefficients. <i>Journal of Chemical Information and Computer Sciences</i> , 1998, 38, 720-725.	2.8	152
3	Comparative study of the behavior of anions in polypyrrole films. <i>Electrochimica Acta</i> , 2005, 50, 1523-1528.	5.2	86
4	In search of better electroactive polymer actuator materials: PPy versus PEDOT versus PEDOT-PPy composites. <i>Smart Materials and Structures</i> , 2013, 22, 104006.	3.5	76
5	Ionic electroactive polymer artificial muscles in space applications. <i>Scientific Reports</i> , 2014, 4, 6913.	3.3	64
6	Anisometric charge dependent swelling of porous carbon in an ionic liquid. <i>Electrochemistry Communications</i> , 2013, 34, 196-199.	4.7	59
7	Study of the factors determining the mobility of ions in the polypyrrole films doped with aromatic sulfonate anions. <i>Electrochimica Acta</i> , 2008, 53, 3828-3835.	5.2	54
8	Combined chemical and electrochemical synthesis methods for metal-free polypyrrole actuators. <i>Sensors and Actuators B: Chemical</i> , 2012, 166-167, 411-418.	7.8	54
9	Prediction of Cell-Penetrating Peptides Using Artificial Neural Networks. <i>Current Computer-Aided Drug Design</i> , 2010, 6, 79-89.	1.2	49
10	QSPR Treatment of Solvent Scales. <i>Journal of Chemical Information and Computer Sciences</i> , 1999, 39, 684-691.	2.8	43
11	A Unified Treatment of Solvent Properties. <i>Journal of Chemical Information and Computer Sciences</i> , 1999, 39, 692-698.	2.8	41
12	Renewable antioxidant properties of suspensible chitosan-polypyrrole composites. <i>Reactive and Functional Polymers</i> , 2013, 73, 1072-1077.	4.1	41
13	Thin ink-jet printed trilayer actuators composed of PEDOT:PSS on interpenetrating polymer networks. <i>Sensors and Actuators B: Chemical</i> , 2018, 258, 1072-1079.	7.8	40
14	Influence of Anions on Electrochemical Properties of Polypyrrole-Modified Electrodes. <i>Russian Journal of Electrochemistry</i> , 2002, 38, 182-187.	0.9	32
15	Electrochemical properties of the polypyrrole films doped with benzenesulfonate. <i>Synthetic Metals</i> , 2007, 157, 66-73.	3.9	32
16	Parametrization of nanoparticles: development of full-particle nanodescriptors. <i>Nanoscale</i> , 2016, 8, 16243-16250.	5.6	30
17	Physical Confinement Impacts Cellular Phenotypes within Living Materials. <i>ACS Applied Bio Materials</i> , 2020, 3, 4273-4281.	4.6	30
18	Influence of ion-exchange on the electrochemical properties of polypyrrole films. <i>Electrochimica Acta</i> , 2014, 122, 79-86.	5.2	29

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19	In Silico Design of Optimal Dissolution Kinetics of Fe-Doped ZnO Nanoparticles Results in Cancer-Specific Toxicity in a Preclinical Rodent Model. <i>Advanced Healthcare Materials</i> , 2017, 6, 1601379.	7.6	29
20	Cell-Laden Hydrogels for Multikingdom 3D Printing. <i>Macromolecular Bioscience</i> , 2020, 20, e2000121.	4.1	29
21	Electro-chemo-mechanical deformation properties of polypyrrole/dodecylbenzenesulfate linear actuators in aqueous and organic electrolyte. <i>RSC Advances</i> , 2016, 6, 96484-96489.	3.6	28
22	Conducting polymer actuators formed on MWCNT and PEDOT-PSS conductive coatings. <i>Synthetic Metals</i> , 2013, 171, 69-75.	3.9	27
23	Application of the QSPR Approach to the Boiling Points of Azeotropes. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3475-3479.	2.5	26
24	On the Unexpected Cation Exchange Behavior, Caused by Covalent Bond Formation between PEDOT and Cl <sup>-</sup> Ions: Extending the Conception for the Polymer-Dopant Interactions. <i>Journal of Physical Chemistry B</i> , 2012, 116, 5491-5500.	2.6	26
25	Carbide-derived carbon in polypyrrole changing the elastic modulus with a huge impact on actuation. <i>RSC Advances</i> , 2016, 6, 26380-26385.	3.6	25
26	Comparative Analysis of Fluorinated Anions for Polypyrrole Linear Actuator Electrolytes. <i>Polymers</i> , 2019, 11, 849.	4.5	25
27	Direct chemical synthesis of pristine polypyrrole hydrogels and their derived aerogels for high power density energy storage applications. <i>Journal of Materials Chemistry A</i> , 2013, 1, 15216.	10.3	24
28	Fe-Doped ZnO nanoparticle toxicity: assessment by a new generation of nanodescriptors. <i>Nanoscale</i> , 2018, 10, 21985-21993.	5.6	23
29	Molecular dynamics modeling the Li-PolystyreneTFSI/PEO blend. <i>Solid State Ionics</i> , 2014, 262, 769-773.	2.7	22
30	Inkjet-Printed hybrid conducting polymer-activated carbon aerogel linear actuators driven in an organic electrolyte. <i>Sensors and Actuators B: Chemical</i> , 2017, 250, 44-51.	7.8	21
31	Polypyrrole linear actuation tuned by phosphotungstic acid. <i>Sensors and Actuators B: Chemical</i> , 2017, 247, 742-748.	7.8	21
32	Enhancement of polypyrrole linear actuation with poly(ethylene oxide). <i>Synthetic Metals</i> , 2017, 232, 1-7.	3.9	21
33	QSAR study of pharmacological permeabilities. <i>Arkivoc</i> , 2009, 2009, 218-238.	0.5	20
34	Concept of an artificial muscle design on polypyrrole nanofiber scaffolds. <i>PLoS ONE</i> , 2020, 15, e0232851.	2.5	19
35	Hardware and Software Development for Isotonic Strain and Isometric Stress Measurements of Linear Ionic Actuators. <i>Polymers</i> , 2019, 11, 1054.	4.5	18
36	Identification of several high-risk HPV inhibitors and drug targets with a novel high-throughput screening assay. <i>PLoS Pathogens</i> , 2017, 13, e1006168.	4.7	18

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37	Theoretical study of the effect of counterions on the structure of pyrrole oligomers. <i>International Journal of Quantum Chemistry</i> , 2002, 88, 296-301.	2.0	17
38	Study of the Properties of Electrodeposited Polypyrrole Films. <i>Russian Journal of Electrochemistry</i> , 2004, 40, 344-348.	0.9	16
39	Electromechanically active polymer actuators based on biofriendly choline ionic liquids. <i>Smart Materials and Structures</i> , 2020, 29, 055021.	3.5	16
40	Two formation mechanisms and renewable antioxidant properties of suspensible chitosan-PPy and chitosan-PPy-BTDA composites. <i>Synthetic Metals</i> , 2013, 164, 6-11.	3.9	15
41	Role of polymerization temperature on the performance of polypyrrole/dodecylbenzenesulphonate linear actuators. <i>Synthetic Metals</i> , 2019, 247, 53-58.	3.9	15
42	Polypyrrole-coated fiber scaffolds: Concurrent linear actuation and sensing. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48533.	2.6	15
43	Carbide-derived carbon as active interlayer of polypyrrole tri-layer linear actuator. <i>Sensors and Actuators B: Chemical</i> , 2014, 201, 100-106.	7.8	14
44	Electrochemistry of interlayer supported polypyrrole tri-layer linear actuators. <i>Electrochimica Acta</i> , 2014, 122, 322-328.	5.2	14
45	Fragment-Based Development of HCV Protease Inhibitors for the Treatment of Hepatitis C. <i>Current Computer-Aided Drug Design</i> , 2012, 8, 55-61.	1.2	13
46	Molecular dynamics simulations of EMI-BF4 in nanoporous carbon actuators. <i>Journal of Molecular Modeling</i> , 2012, 18, 1541-1552.	1.8	13
47	Lifetime measurements of ionic electroactive polymer actuators. <i>Journal of Intelligent Material Systems and Structures</i> , 2014, 25, 2267-2275.	2.5	12
48	Correlation of blood-brain penetration and human serum albumin binding with theoretical descriptors. <i>Arkivoc</i> , 2009, 2008, 38-60.	0.5	12
49	Role of polyethylene oxide content in polypyrrole linear actuators. <i>Materials Today Communications</i> , 2020, 23, 100908.	1.9	11
50	Metabolism Control in 3D-Printed Living Materials Improves Fermentation. <i>ACS Applied Bio Materials</i> , 2021, 4, 7195-7203.	4.6	11
51	Encapsulation of ionic electromechanically active polymer actuators. <i>Smart Materials and Structures</i> , 2019, 28, 074002.	3.5	10
52	Understanding the Behavior of Fully Non-Toxic Polypyrrole-Gelatin and Polypyrrole-PVdF Soft Actuators with Choline Ionic Liquids. <i>Actuators</i> , 2020, 9, 40.	2.3	10
53	Chitosan Combined with Conducting Polymers for Novel Functionality: Antioxidant and Antibacterial Activity. <i>Key Engineering Materials</i> , 2014, 605, 428-431.	0.4	9
54	Optimal phosphotungstate concentration for polypyrrole linear actuation and energy storage. <i>Multifunctional Materials</i> , 2018, 1, 014003.	3.7	9

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55	Influence of solvent on linear polypyrrole-polyethylene oxide actuators. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46831.	2.6	9
56	Electrochemomechanical Behavior of Polypyrrole-Coated Nanofiber Scaffolds in Cell Culture Medium. <i>Polymers</i> , 2019, 11, 1043.	4.5	9
57	Cellulose-Multiwall Carbon Nanotube Fiber Actuator Behavior in Aqueous and Organic Electrolyte. <i>Materials</i> , 2020, 13, 3213.	2.9	9
58	The Use of Laminates of Commercially Available Fabrics for Anti-Stab Body-Armor. <i>Polymers</i> , 2021, 13, 1077.	4.5	9
59	A quantum-mechanical study of oxidized oligopyrroles. <i>International Journal of Quantum Chemistry</i> , 1999, 71, 101-109.	2.0	8
60	Redoping – A simple way to enhance the redoxcapacity of polypyrrole films. <i>Electrochemistry Communications</i> , 2010, 12, 1180-1183.	4.7	8
61	Effect of contact material and ambient humidity on the performance of MWCNT/PDMS multimodal deformation sensors. <i>Sensors and Actuators A: Physical</i> , 2018, 283, 1-8.	4.1	8
62	Mechanical and electro-mechanical properties of EAP actuators with inkjet printed electrodes. <i>Synthetic Metals</i> , 2018, 246, 122-127.	3.9	8
63	Polypyrrole/carbide-derived carbon composite in organic electrolyte: Characterization as a linear actuator. <i>Reactive and Functional Polymers</i> , 2018, 131, 414-419.	4.1	8
64	Consistent response from conducting polymer actuators: Potential window and embedded charges to avoid mixed ion transport. <i>Synthetic Metals</i> , 2020, 268, 116502.	3.9	8
65	Multifunctionality of Polypyrrole Polyethyleneoxide Composites: Concurrent Sensing, Actuation and Energy Storage. <i>Polymers</i> , 2020, 12, 2060.	4.5	8
66	Complexes of oligopyrrole dications with inorganic anions: a comparative theoretical HF/post-HF study. <i>Synthetic Metals</i> , 2005, 149, 47-52.	3.9	7
67	Subchronic Oral and Inhalation Toxicities: a Challenging Attempt for Modeling and Prediction. <i>Molecular Informatics</i> , 2013, 32, 793-801.	2.5	7
68	Improving the Electrochemical Performance and Stability of Polypyrrole by Polymerizing Ionic Liquids. <i>Polymers</i> , 2020, 12, 136.	4.5	7
69	An Integrated Data-Driven Strategy for Safe-by-Design Nanoparticles: The FP7 MODERN Project. <i>Advances in Experimental Medicine and Biology</i> , 2017, 947, 257-301.	1.6	6
70	Polypyrrole coatings on gelatin fiber scaffolds: Material and electrochemical characterizations in organic and aqueous electrolyte. <i>Synthetic Metals</i> , 2017, 232, 25-30.	3.9	6
71	Force field generation and molecular dynamics simulations of Li+@Nafion. <i>Electrochimica Acta</i> , 2010, 55, 2587-2591.	5.2	5
72	Smart insole sensors for sports and rehabilitation. <i>Proceedings of SPIE</i> , 2014, , .	0.8	5

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73	Antagonist Concepts of Polypyrrole Actuators: Bending Hybrid Actuator and Mirrored Trilayer Linear Actuator. <i>Polymers</i> , 2021, 13, 861.	4.5	5
74	Solvent effects on carbide-derived-carbon trilayer bending actuators. <i>Synthetic Metals</i> , 2019, 247, 170-176.	3.9	4
75	A Biomimetic Approach to Increasing Soft Actuator Performance by Friction Reduction. <i>Polymers</i> , 2020, 12, 1120.	4.5	4
76	Printed PEDOT:PSS Trilayer: Mechanism Evaluation and Application in Energy Storage. <i>Materials</i> , 2020, 13, 491.	2.9	4
77	A New Direction in Microfluidics: Printed Porous Materials. <i>Micromachines</i> , 2021, 12, 671.	2.9	4
78	Wider Potential Windows of Cellulose Multiwall Carbon Nanotube Fibers Leading to Qualitative Multifunctional Changes in an Organic Electrolyte. <i>Polymers</i> , 2021, 13, 4439.	4.5	4
79	PEDOT-PSS/MWCNT coatings on PET for conducting polymer actuators. <i>International Journal of Nanotechnology</i> , 2014, 11, 477.	0.2	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. <i>Proceedings of SPIE</i> , 2016, , .	0.8	3
82	Fabrication of Carbon-Based Ionic Electromechanically Active Soft Actuators. <i>Journal of Visualized Experiments</i> , 2020, , .	0.3	3
83	Polypyrrole and poly(3,4-ethylenedioxythiophene) on silicon cantilever: Role of formation potential in bending displacement. <i>Synthetic Metals</i> , 2021, 271, 116653.	3.9	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. <i>Synthetic Metals</i> , 2022, 283, 116966.	3.9	3
86	Development of soft and compliant multimodal deformation sensors. <i>Sensors and Actuators A: Physical</i> , 2016, 252, 42-47.	4.1	2
87	Actuation increase in polypyrrole bilayer by photo-activated dopants. <i>Synthetic Metals</i> , 2018, 246, 57-63.	3.9	2
88	Carbide-derived carbon and poly-3,4-ethylenedioxythiophene composite laminate: linear and bending actuation. <i>Synthetic Metals</i> , 2018, 245, 67-73.	3.9	2
89	A Kirigami Approach of Patterning Membrane Actuators. <i>Polymers</i> , 2021, 13, 125.	4.5	2
90	Embedded Carbide-derived Carbon (CDC) particles in polypyrrole (PPy) for linear actuator. <i>Proceedings of SPIE</i> , 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.	1.2	1
92	Theoretical Modeling of HPV: QSAR and Novodesign with Fragment Approach. Current Computer-Aided Drug Design, 2015, 10, 303-314.	1.2	1
93	Dual function composite fibers of cellulose with activated carbon aerogel and carbide derived carbon. Journal of Applied Polymer Science, 0, , 52297.	2.6	1
94	Kinetics of catalyzed dehydrocondensation of hydrogen functionalized siloxane. Journal of Applied Polymer Science, 0, , 52304.	2.6	1
95	Tuning the linear actuation of multiwall carbon nanotube fibers with carbide-derived carbon. Synthetic Metals, 2022, 288, 117099.	3.9	1
96	Quantitative Measures of Solvent Polarity. ChemInform, 2004, 35, no.	0.0	0
97	A new force field for molecular dynamics studies of Li <sup>+</sup> and Na <sup>+</sup> -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.	4.5	0
101	Solvent change in polymerization influence linear actuation of polypyrrole carbide-derived carbon films. , 2018, , .		0
102	Poly-3,4-ethylenedioxythiophene 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.	5.1	0