John D Tovar

List of Publications by Year
in descending order

96 papers	3,195 citations	147566 31 h-index	168136 53 g-index
107 all docs	107 docs citations	107 times ranked	3475 citing authors

#	Article	IF	Citations
1	Manifestations of Antiaromaticity in Organic Materials: Case Studies of Cyclobutadiene, Borole, and Pentalene. European Journal of Organic Chemistry, 2022, 2022, .	1.2	18
2	Computational discovery of high charge mobility self-assembling Ï€-conjugated peptides. Molecular Systems Design and Engineering, 2022, 7, 447-459.	1.7	8
3	Quinonoid versus Aromatic Ï€-Conjugated Oligomers and Polymers and Their Diradical Characters. Journal of Physical Chemistry C, 2022, 126, 5302-5310.	1.5	3
4	Splitting the Ring: Impact of <i>Ortho</i> and <i>Meta</i> Pi Conjugation Pathways through Disjointed [8]Cycloparaphenylene Electronic Materials. Journal of the American Chemical Society, 2022, 144, 4611-4622.	6.6	12
5	A New Polystyreneâ€“Poly(vinylpyridinium) Ionic Copolymer Dopant for nâ€Type Allâ€Polymer Thermoelectrics with High and Stable Conductivity Relative to the Seebeck Coefficient giving High Power Factor. Advanced Materials, 2022, 34, e2201062.	11.1	13
6	A Dichlorinated Dithienylethene-Diketopyrrolopyrrole-Based Copolymer with Pronounced Pâ€“N Crossover: Evidence for Anionic Seebeck Contribution. , 2022, 4, 1139-1145.		4
7	Hybrid computationalâ€“experimental data-driven design of self-assembling Ï€-conjugated peptides. , 2022, 1, 448-462.		7
8	Computationally Guided Tuning of Peptide-Conjugated Perylene Diimide Self-Assembly. Langmuir, 2021, 37, 8594-8606.	1.6	9
9	Repurposing aromaticity for organic electronics: Making, breaking, and stacking Ï€â€circuits. Journal of the Chinese Chemical Society, 2021, 68, 51-58.	0.8	0
10	Unusually Conductive Organicâ€“Inorganic Hybrid Nanostructures Derived from Bio-Inspired Mineralization of Peptide/Pi-Electron Assemblies. ACS Nano, 2020, 14, 1846-1855.	7.3	19
11	Carbonyl-Directed Aliphatic Fluorination: A Special Type of Hydrogen Atom Transfer Beats Out Norrish II. Journal of the American Chemical Society, 2020, 142, 14710-14724.	6.6	37
12	A Tale of Three Hydrophobicities: Impact of Constitutional Isomerism on Nanostructure Evolution and Electronic Communication in Ï€-Conjugated Peptides. Macromolecules, 2020, 53, 7263-7273.	2.2	10
13	Quinonoid <i>vs.</i> aromatic structures of heteroconjugated polymers from oligomer calculations. Physical Chemistry Chemical Physics, 2020, 22, 11431-11439.	1.3	5
14	Computationally Guided Tuning of Amino Acid Configuration Influences the Chiroptical Properties of Supramolecular Peptide-Ï€-Peptide Nanostructures. Langmuir, 2020, 36, 6782-6792.	1.6	8
15	Discovery of Self-Assembling Ï€-Conjugated Peptides by Active Learning-Directed Coarse-Grained Molecular Simulation. Journal of Physical Chemistry B, 2020, 124, 3873-3891.	1.2	76
16	Linear and Radial Conjugation in Extended Ï€-Electron Systems. Journal of the American Chemical Society, 2020, 142, 2293-2300.	6.6	32
17	Core structure dependence of cycloreversion dynamics in diarylethene analogs. Physical Chemistry Chemical Physics, 2020, 22, 3314-3328.	1.3	9
18	Effect of Core Oligomer Length on the Phase Behavior and Assembly of Ï€-Conjugated Peptides. ACS Applied Materials & Interfaces, 2020, 12, 20722-20732.	4.0	6

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19	Quantum Interference Enhanced Chemical Responsivity in Singleâ€Molecule Dithienoborepin Junctions. Chemistry - A European Journal, 2019, 25, 15141-15146.	1.7	18
20	Controlling Supramolecular Chirality in Peptideâˆ'Ï€-Peptide Networks by Variation of the Alkyl Spacer Length. Langmuir, 2019, 35, 14060-14073.	1.6	26
21	Revealing the Sequence-Structureâ€"Electronic Property Relation of Self-Assembling Ï€-Conjugated Oligopeptides by Molecular and Quantum Mechanical Modeling. Langmuir, 2019, 35, 15221-15231.	1.6	8
22	Two-electron transfer stabilized by excited-state aromatization. Nature Communications, 2019, 10, 4983.	5.8	21
23	Pendant Photochromic Conjugated Polymers Incorporating a Highly Functionalizable Thieno[3,4-<i>b</i>]thiophene Switching Motif. Journal of the American Chemical Society, 2019, 141, 3146-3152.	6.6	33
24	Energy- and conformer-dependent excited-state relaxation of an <i>E</i>/<i>Z</i> photoswitchable thienyl-ethene. Physical Chemistry Chemical Physics, 2019, 21, 14440-14452.	1.3	3
25	Borepin Rings as â€œSigma-Freeâ€•Reporters of Aromaticity within Polycyclic Aromatic Scaffolds. Journal of Physical Chemistry A, 2019, 123, 881-888.	1.1	10
26	Torsional Impacts on Quaterthiophene Segments Confined within Peptidic Nanostructures. Langmuir, 2019, 35, 2270-2282.	1.6	10
27	Photon management in supramolecular peptide nanomaterials. Bioinspiration and Biomimetics, 2018, 13, 015004.	1.5	6
28	Solid-state electrical applications of protein and peptide based nanomaterials. Chemical Society Reviews, 2018, 47, 3640-3658.	18.7	84
29	Torsional Bias as a Strategy To Tune Singletâ€"Triplet Gaps in Organic Diradicals. Journal of Physical Chemistry C, 2018, 122, 12148-12157.	1.5	7
30	Synthesis and Evaluation of Self-Assembled Nanostructures of Peptide-Ï€ Chromophore Conjugates. Methods in Molecular Biology, 2018, 1777, 209-220.	0.4	1
31	A Heptacyclic Heptacycle: A Doubly Naphtho[b]thiophene Fused Borepin. Synlett, 2018, 29, 2499-2502.	1.0	8
32	Nonequilibrium Self-Assembly of Ï€-Conjugated Oligopeptides in Solution. ACS Applied Materials & Interfaces, 2017, 9, 3977-3984.	4.0	26
33	Solid-Phase Synthesis of Self-Assembling Multivalent Ï€-Conjugated Peptides. ACS Omega, 2017, 2, 409-419.	1.6	18
34	Ring fusion isomers of dithienoborepins: perturbations of electronic structure, aromaticity, and reactivity in boron-containing polycyclic heteroaromatics. Canadian Journal of Chemistry, 2017, 95, 381-389.	0.6	12
35	Self-Assembly and Associated Photophysics of Dendron-Appended Peptide-Ï€-Peptide Triblock Macromolecules. Macromolecules, 2017, 50, 5315-5322.	2.2	8
36	Concentration-Driven Assembly and Solâ€"Gel Transition of Ï€-Conjugated Oligopeptides. ACS Central Science, 2017, 3, 986-994.	5.3	28

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37	Benzo[<i>b</i>]thiophene Fusion Enhances Local Borepin Aromaticity in Polycyclic Heteroaromatic Compounds. Journal of Organic Chemistry, 2017, 82, 13440-13448.	1.7	37
38	Nonresonant and Local Field Effects in Peptidic Nanostructures Bearing Oligo(<i>p</i>-phenylenevinylene) Units. Langmuir, 2017, 33, 7435-7445.	1.6	11
39	Cross-Linking Approaches to Tuning the Mechanical Properties of Peptide Ï€-Electron Hydrogels. Bioconjugate Chemistry, 2017, 28, 751-759.	1.8	17
40	Kinetically Controlled Coassembly of Multichromophoric Peptide Hydrogelators and the Impacts on Energy Transport. Journal of the American Chemical Society, 2017, 139, 8685-8692.	6.6	104
41	Regulation of peptide-Ï€-peptide nanostructure bundling: the impact of â€˜cruciformâ€™ Ï€-electron segments. Tetrahedron, 2016, 72, 6084-6090.	1.0	5
42	Aromaticity Competition in Differentially Fused Borepin-Containing Polycyclic Aromatics. Journal of Organic Chemistry, 2016, 81, 5595-5605.	1.7	30
43	Chain Dynamics, Relaxation Times, and Conductivities of Bithiopheneâ€“Acene Copolymers Measured Using High Frequency Saturation Transfer EPR. Journal of Physical Chemistry B, 2016, 120, 1033-1039.	1.2	3
44	Thermodynamics, morphology, and kinetics of early-stage self-assembly of Ï€-conjugated oligopeptides. Molecular Simulation, 2016, 42, 955-975.	0.9	29
45	Photoinduced Electron Transfer within Supramolecular Donorâ€“Acceptor Peptide Nanostructures under Aqueous Conditions. Journal of the American Chemical Society, 2016, 138, 3362-3370.	6.6	67
46	Energy transfer within responsive pi-conjugated coassembled peptide-based nanostructures in aqueous environments. Chemical Science, 2015, 6, 1474-1484.	3.7	60
47	Sequence-dependent mechanical, photophysical and electrical properties of pi-conjugated peptide hydrogelators. Journal of Materials Chemistry C, 2015, 3, 6505-6514.	2.7	43
48	Peptide Nanostructures with Ï€â€Ways: Photophysical Consequences of Peptide/Ï€â€Electron Molecular Selfâ€Assembly. Israel Journal of Chemistry, 2015, 55, 622-627.	1.0	7
49	Assessment of the aromaticity of borepin rings by spectroscopic, crystallographic and computational methods: a historical overview. Journal of Physical Organic Chemistry, 2015, 28, 378-387.	0.9	31
50	An Unusually Small Singletâ€“Triplet Gap in a Quinoidal 1,6â€Methano[10]annulene Resulting from Bairdâ€™s 4<i>n</i> Ï€â€Electron Triplet Stabilization. Angewandte Chemie - International Edition, 2015, 54, 5888-5893.	7.2	29
51	Innentitelbild: An Unusually Small Singlet-Triplet Gap in a Quinoidal 1,6-Methano[10]annulene Resulting from Bairdâ€™s 4nÏ€-Electron Triplet Stabilization (Angew. Chem. 20/2015). Angewandte Chemie, 2015, 127, 5890-5890.	1.6	0
52	Peptide Ï€-Electron Conjugates: Organic Electronics for Biology?. Bioconjugate Chemistry, 2015, 26, 2290-2302.	1.8	104
53	Demonstration of Hole Transport and Voltage Equilibration in Self-Assembled Ï€-Conjugated Peptide Nanostructures Using Field-Effect Transistor Architectures. ACS Nano, 2015, 9, 12401-12409.	7.3	57
54	Solid-phase Pd-catalysed cross-coupling methods for the construction of Ï€-conjugated peptide nanomaterials. Supramolecular Chemistry, 2014, 26, 259-266.	1.5	8

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55	Prospecting in HÃ¼ckelâ€space: From Hinokitiol to Nonâ€benzenoid Organic Electronics. Chemical Record, 2014, 14, 214-225.	2.9	8
56	Supramolecular Polymorphism: Tunable Electronic Interactions within Ï€-Conjugated Peptide Nanostructures Dictated by Primary Amino Acid Sequence. Langmuir, 2014, 30, 5946-5956.	1.6	62
57	Heteroaromatic variation in amorphous 1,6-methano[10]annulene-based charge-transporting organic semiconductors. Journal of Materials Chemistry C, 2014, 2, 7851.	2.7	8
58	Variation of Formal Hydrogen-Bonding Networks within Electronically Delocalized Ï€-Conjugated Oligopeptide Nanostructures. Langmuir, 2014, 30, 11375-11385.	1.6	28
59	Thiophene-Fused Borepins As Directly Functionalizable Boron-Containing Ï€-Electron Systems. Journal of the American Chemical Society, 2014, 136, 7132-7139.	6.6	106
60	Polydiacetyleneâ€Peptide 1D Nanomaterials. Macromolecular Rapid Communications, 2013, 34, 1343-1350.	2.0	37
61	Supramolecular Construction of Optoelectronic Biomaterials. Accounts of Chemical Research, 2013, 46, 1527-1537.	7.6	208
62	Block copolymer supramolecular assembly using a precursor to a novel conjugated polymer. Polymer Chemistry, 2013, 4, 1482-1490.	1.9	6
63	Charge Delocalization through Benzene, Naphthalene, and Anthracene Bridges in Ï€-Conjugated Oligomers: An Experimental and Quantum Chemical Study. Journal of Physical Chemistry B, 2013, 117, 6304-6317.	1.2	23
64	Fluidicâ€Directed Assembly of Aligned Oligopeptides with Ï€â€Conjugated Cores. Advanced Materials, 2013, 25, 6398-6404.	11.1	31
65	Peptide-Based Supramolecular Semiconductor Nanomaterials via Pd-Catalyzed Solid-Phase â€œDimerizationsâ€. ACS Macro Letters, 2012, 1, 1326-1329.	2.3	59
66	Synthesis and characterization of Ï€-conjugated peptide-based supramolecular materials. Pure and Applied Chemistry, 2012, 84, 1039-1045.	0.9	22
67	Torsional Influences within Disordered Organic Electronic Materials Based upon Non-Benzenoid 1,6-Methano[10]annulene Rings. Macromolecules, 2012, 45, 7339-7349.	2.2	11
68	Synthesis and Alignment of Discrete Polydiacetylene-Peptide Nanostructures. Journal of the American Chemical Society, 2012, 134, 2028-2031.	6.6	123
69	Influence of Annulene Ratio on the Electrochemical and Spectroscopic Properties of Methano[10]Annuleneâ€“Thiophene Random Copolymers. ACS Applied Materials & Interfaces, 2011, 3, 2551-2556.	4.0	5
70	Conjugated â€œ<i>B</i>-Entacenesâ€: Polycyclic Aromatics Containing Two Borepin Rings. Organic Letters, 2011, 13, 3106-3109.	2.4	65
71	Main-chain photochromic conducting polymers. Polymer Chemistry, 2011, 2, 2699.	1.9	34
72	Functionalized Dibenzoborepins as Components of Small Molecule and Polymeric Ï€-Conjugated Electronic Materials. Journal of Organic Chemistry, 2011, 76, 2227-2239.	1.7	48

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73	Piâ€conjugated chain extenders for the synthesis of optoelectronic segmented polyurethanes. Journal of Polymer Science Part A, 2011, 49, 4861-4874.	2.5	7
74	Aligned Macroscopic Domains of Optoelectronic Nanostructures Prepared via Shearâ€Flow Assembly of Peptide Hydrogels. Advanced Materials, 2011, 23, 5009-5014.	11.1	128
75	Organic Halogenation Chemistry as a Vital Tool for the Construction of Functional Ï€-Conjugated Materials. Synthesis, 2011, 2011, 2387-2391.	1.2	4
76	Poly(cyclopropenone)s: Formal Inclusion of the Smallest HÃ¼ckel Aromatic into Ï€-Conjugated Polymers. Journal of Organic Chemistry, 2010, 75, 5689-5696.	1.7	13
77	Synthesis of Functionalizable Boronâ€Containing Ï€â€Electron Materials that Incorporate Formally Aromatic Fused Borepin Rings. Angewandte Chemie - International Edition, 2010, 49, 4213-4217.	7.2	110
78	Non-Traditional Aromatic Topologies and Biomimetic Assembly Motifs as Components of Functional Pi-Conjugated Oligomers. Materials, 2010, 3, 1269-1280.	1.3	3
79	Optical and electrical properties of Ï€-conjugated polymers built with the 10 Ï€-electron methano[10]annulene ring system. Pure and Applied Chemistry, 2010, 82, 1045-1053.	0.9	1
80	Comparative Survey of Conducting Polymers Containing Benzene, Naphthalene, and Anthracene Cores: Interplay of Localized Aromaticity and Polymer Electronic Structures. Journal of Physical Chemistry B, 2010, 114, 3104-3116.	1.2	40
81	On-resin dimerization incorporates a diverse array of Ï€-conjugated functionality within aqueous self-assembling peptide backbones. Chemical Communications, 2010, 46, 3947.	2.2	89
82	Conformationally Complex Ï€â€Conjugated Molecular and Polymeric Materials: New Challenges for Organic Synthesis. Chemistry - A European Journal, 2009, 15, 5176-5185.	1.7	7
83	Expanding the Realm of Furan-Based Conducting Polymers through Conjugation with 1,6-Methano[10]annulene. Macromolecules, 2009, 42, 4449-4455.	2.2	40
84	Emerging Prospects for Unusual Aromaticity in Organic Electronic Materials: The Case for Methano[10]annulene. European Journal of Organic Chemistry, 2008, 2008, 2193-2206.	1.2	19
85	One-Dimensional Optoelectronic Nanostructures Derived from the Aqueous Self-Assembly of Ï€-Conjugated Oligopeptides. Journal of the American Chemical Society, 2008, 130, 13840-13841.	6.6	154
86	Conformation as a Protecting Group: A Regioselective Aromatic Bromination En Route to Complex Ï€-Electron Systems. Organic Letters, 2008, 10, 4323-4326.	2.4	13
87	Methano[10]annulene Revisited:â€‰ Extended Delocalization through Conjugated Polymers Bearing Larger HÃ¼ckel Aromatics. Organic Letters, 2007, 9, 3041-3044.	2.4	26
88	Conducting Polymers Confined Within Bioactive Peptide Amphiphile Nanostructures. Small, 2007, 3, 2024-2028.	5.2	42
89	Probing the Interior of Peptide Amphiphile Supramolecular Aggregates. Journal of the American Chemical Society, 2005, 127, 7337-7345.	6.6	96
90	Synthesis of Tunable Electrochromic and Fluorescent Polymers. ACS Symposium Series, 2004, , 368-376.	0.5	0

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91	Cofacially constrained organic semiconductors. Journal of Polymer Science Part A, 2003, 41, 3693-3702.	2.5	16
92	Functionalizable Polycyclic Aromatics through Oxidative Cyclization of Pendant Thiophenes. Journal of the American Chemical Society, 2002, 124, 7762-7769.	6.6	83
93	Exploiting the versatility of organometallic cross-coupling reactions for entry into extended aromatic systems. Journal of Organometallic Chemistry, 2002, 653, 215-222.	0.8	47
94	Pyrylium Salts via Electrophilic Cyclization:Â Applications for Novel 3-Arylisoquinoline Syntheses. Journal of Organic Chemistry, 1999, 64, 6499-6504.	1.7	99
95	Aqueous Self-assembly of Peptide-Diketopyrrolopyrrole Conjugates with Variation of N-alkyl Side Chain and Ï€-Core Lengths. Organic Materials, 0, 03, .	1.0	0
96	In Vivo Formation and Tracking of Ï€-Peptide Nanostructures. ACS Applied Materials & Interfaces, 0, , .	4.0	3