

Roman Szostak

List of Publications by Year in descending order

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89
papers

3,154
citations

159585

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168389

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90
all docs

90
docs citations

90
times ranked

2435
citing authors

#	ARTICLE	IF	CITATIONS
1	Buchwaldâ€™Hartwig Amination of Coordinating Heterocycles Enabled by Largeâ€™butâ€™Flexible Pdâ€™BIANâ€™NHC Catalysts**. Chemistry - A European Journal, 2022, 28, .	3.3	16
2	pH determination of small sample volumes using Raman spectra of azo dyes. Journal of Molecular Structure, 2022, 1253, 132226.	3.6	2
3	Palladium-NHC (NHC = N-heterocyclic Carbene)-Catalyzed Suzukiâ€™Miyaura Cross-Coupling of Alkyl Amides. ACS Catalysis, 2022, 12, 2426-2433.	11.2	23
4	N-Heterocyclic Carbene Complexes of Nickel(II) from Caffeine and Theophylline: Sustainable Alternative to Imidazol-2-ylidenes. Organometallics, 2022, 41, 1806-1815.	2.3	12
5	Application of Indazolin-3-ylidenes in Catalysis: Steric Tuning of Nonclassical Formally Normal $\langle i \rangle N \langle /i \rangle$ -Heterocyclic Carbenes with Dual Electronic Character for Catalysis. Organometallics, 2022, 41, 1115-1124.	2.3	11
6	Thiazol-2-ylidenes as N-Heterocyclic carbene ligands with enhanced electrophilicity for transition metal catalysis. Communications Chemistry, 2022, 5, .	4.5	17
7	ATR-IR Spectroscopy Application to Diagnostic Screening of Advanced Endometriosis. Oxidative Medicine and Cellular Longevity, 2022, 2022, 1-13.	4.0	2
8	Quantification of Salicylates and Flavonoids in Poplar Bark and Leaves Based on IR, NIR, and Raman Spectra. Molecules, 2022, 27, 3954.	3.8	4
9	Structures of the Most Twisted Thioamide and Selenoamide: Effect of Higher Chalcogens of Twisted Amides on $N \hat{=} C(X)$ Resonance. Angewandte Chemie - International Edition, 2022, 61, .	13.8	3
10	Acyl fluorides as direct precursors to fluoride ketyl radicals: reductive deuteration using Sml_{2} and $D_{2}O$. Chemical Communications, 2021, 57, 5195-5198.	4.1	11
11	IPr# â€™ highly hindered, broadly applicable N-heterocyclic carbenes. Chemical Science, 2021, 12, 10583-10589.	7.4	51
12	Conversion of esters to thioesters under mild conditions. Organic and Biomolecular Chemistry, 2021, 19, 2991-2996.	2.8	13
13	Modeling of Antioxidant Activity, Polyphenols and Macronutrients Content of Bee Pollen Applying Solid-State ^{13}C NMR Spectra. Antioxidants, 2021, 10, 1123.	5.1	4
14	Evaluation of Cyclic Amides as Activating Groups in $N \hat{=} C$ Bond Cross-Coupling: Discovery of $\langle i \rangle N \langle /i \rangle$ -Acyl- \hat{I} -valerolactams as Effective Twisted Amide Precursors for Cross-Coupling Reactions. Journal of Organic Chemistry, 2021, 86, 10455-10466.	3.2	12
15	Quantitative Determination of Vitamins A and E in Ointments Using Raman Spectroscopy. Processes, 2021, 9, 8.	2.8	6
16	[(NHC)PdCl $_{2}$ (Aniline)] Complexes: Easily Synthesized, Highly Active Pd(II)â€™NHC Precatalysts for Cross-Coupling Reactions. Journal of Organic Chemistry, 2021, 86, 15648-15657.	3.2	35
17	Pentafluorophenyl Esters: Highly Chemoselective Ketyl Precursors for the Synthesis of \hat{I}, \hat{I} -Dideuterio Alcohols Using Sml_{2} and $D_{2}O$ as a Deuterium Source. Organic Letters, 2020, 22, 1249-1253.	4.6	20
18	Ring-Opening Olefin Metathesis of Twisted Amides: Activation of Amide Bonds by $C \hat{=} C$ Cleavage. ACS Catalysis, 2020, 10, 737-742.	11.2	9

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19	Electrophilicity Scale of Activated Amides: ^{17}O -NMR and ^{15}N -NMR Chemical Shifts of Acyclic Twisted Amides in $\text{N}^{\alpha}\text{-C}(\text{O})$ Cross-Coupling. <i>Chemistry - A European Journal</i> , 2020, 26, 16246-16250.	3.3	13
20	Preference of <i>cis</i> -Thioamide Structure in <i>N</i> -Thioacyl- <i>N</i> -methylanilines. <i>Organic Letters</i> , 2020, 22, 9500-9505.	4.6	12
21	<i>N</i> -Acylcarbazoles and <i>N</i> -Acylindoles: Electronically Activated Amides for $\text{N}^{\alpha}\text{-C}(\text{O})$ Cross-Coupling by <i>N</i> to <i>Ar</i> Conjugation Switch. <i>Organic Letters</i> , 2020, 22, 4703-4709.	4.6	23
22	<i>N</i> -Acyl-glutarimides: Effect of Glutarimide Ring on the Structures of Fully Perpendicular Twisted Amides and $\text{N}^{\alpha}\text{-C}$ Bond Cross-Coupling. <i>Journal of Organic Chemistry</i> , 2020, 85, 5475-5485.	3.2	21
23	Quantification of Ash and Moisture in Wheat Flour by Raman Spectroscopy. <i>Foods</i> , 2020, 9, 280.	4.3	31
24	Determination of nutritional parameters of bee pollen by Raman and infrared spectroscopy. <i>Talanta</i> , 2020, 212, 120790.	5.5	22
25	Sterically Hindered Ketones via Palladium-Catalyzed Suzuki-Miyaura Cross-Coupling of Amides by $\text{N}^{\alpha}\text{-C}(\text{O})$ Activation. <i>Organic Letters</i> , 2019, 21, 7976-7981.	4.6	27
26	Polypyrrole-Methyl Orange Raman pH Sensor. <i>Polymers</i> , 2019, 11, 715.	4.5	13
27	^{17}O NMR and ^{15}N NMR chemical shifts of sterically-hindered amides: ground-state destabilization in amide electrophilicity. <i>Chemical Communications</i> , 2019, 55, 4423-4426.	4.1	12
28	Triflamides: Highly Reactive, Electronically Activated <i>N</i> -Sulfonyl Amides in Catalytic $\text{N}^{\alpha}\text{-C}(\text{O})$ Amide Cross-Coupling. <i>Organic Letters</i> , 2019, 21, 1253-1257.	4.6	32
29	Tröger's Base Twisted Amides: High Amide Bond Twist and <i>N</i> / <i>O</i> -Protonation Aptitude. <i>Journal of Organic Chemistry</i> , 2019, 84, 1510-1516.	3.2	16
30	Chemistry of Bridged Lactams: Recent Developments. <i>Molecules</i> , 2019, 24, 274.	3.8	43
31	Determination of nutritional parameters of yoghurts by FT Raman spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 196, 413-417.	3.9	9
32	<i>N</i> -Acyl-glutarimides: Resonance and Proton Affinities of Rotationally-Inverted Twisted Amides Relevant to $\text{N}^{\alpha}\text{-C}(\text{O})$ Cross-Coupling. <i>Organic Letters</i> , 2018, 20, 1342-1345.	4.6	65
33	Microheterogeneity in binary mixtures of water with CH_3OH and CD_3OH : ATR-IR spectroscopic, chemometric and DFT studies. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 197, 88-94.	3.9	20
34	Barriers to Rotation in ortho-Substituted Tertiary Aromatic Amides: Effect of Chloro-Substitution on Resonance and Distortion. <i>Journal of Organic Chemistry</i> , 2018, 83, 3159-3163.	3.2	29
35	Determining moisture content in pasta by vibrational spectroscopy. <i>Talanta</i> , 2018, 178, 294-298.	5.5	15
36	Reversible Twisting of Primary Amides via Ground State $\text{N}^{\alpha}\text{-C}(\text{O})$ Destabilization: Highly Twisted Rotationally Inverted Acyclic Amides. <i>Journal of the American Chemical Society</i> , 2018, 140, 727-734.	13.7	155

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37	Microheterogeneity in CH ₃ OH/CD ₃ OH mixture. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2018, 188, 349-354.	3.9	11
38	Electrocrystallization of silver nanoparticles from silver halides in polypyrrole evidenced by their SERS activity under thermodynamic and kinetic conditions. <i>Journal of Solid State Electrochemistry</i> , 2018, 22, 3933-3945.	2.5	2
39	The Most Twisted Acyclic Amides: Structures and Reactivity. <i>Organic Letters</i> , 2018, 20, 7771-7774.	4.6	41
40	Twisted <i>N</i> -Acyl-hydantoins: Rotationally Inverted Urea-Imides of Relevance in <i>N</i> -C(O) Cross-coupling. <i>Journal of Organic Chemistry</i> , 2018, 83, 14676-14682.	3.2	13
41	Structures and energetic properties of 4-halobenzamides. <i>Acta Crystallographica Section C, Structural Chemistry</i> , 2018, 74, 1395-1402.	0.5	1
42	Quantification of active ingredients in <i>Potentilla tormentilla</i> by Raman and infrared spectroscopy. <i>Talanta</i> , 2018, 189, 308-314.	5.5	21
43	Acyl and Decarbonylative Suzuki Coupling of <i>N</i> -Acetyl Amides: Electronic Tuning of Twisted, Acyclic Amides in Catalytic <i>N</i> -Nitrogen Bond Cleavage. <i>ACS Catalysis</i> , 2018, 8, 9131-9139.	11.2	91
44	Palladium-Catalyzed Suzuki-Miyaura Cross-Coupling of <i>N</i> -Mesylamides by <i>N</i> -C Cleavage: Electronic Effect of the Mesyl Group. <i>Organic Letters</i> , 2017, 19, 1434-1437.	4.6	74
45	Suzuki-Miyaura Cross-Coupling of <i>N</i> -Acylpyrroles and Pyrazoles: Planar, Electronically Activated Amides in Catalytic <i>N</i> -C Cleavage. <i>Organic Letters</i> , 2017, 19, 3596-3599.	4.6	91
46	Resonance Destabilization in <i>N</i> -Acylanilines (Anilides): Electronically-Activated Planar Amides of Relevance in <i>N</i> -C(O) Cross-Coupling. <i>Journal of Organic Chemistry</i> , 2017, 82, 6373-6378.	3.2	82
47	<i>N</i> -Methylamino Pyrimidyl Amides (MAPA): Highly Reactive, Electronically-Activated Amides in Catalytic <i>N</i> -C(O) Cleavage. <i>Organic Letters</i> , 2017, 19, 4656-4659.	4.6	59
48	Suzuki-Miyaura cross-coupling of amides and esters at room temperature: correlation with barriers to rotation around <i>C</i> - <i>N</i> and <i>C</i> - <i>O</i> bonds. <i>Chemical Science</i> , 2017, 8, 6525-6530.	7.4	148
49	Determination of Antioxidant Activity and Polyphenols Content in Chips by Raman and IR Spectroscopy. <i>Food Analytical Methods</i> , 2017, 10, 3964-3971.	2.6	8
50	Quantification of active ingredients in pharmaceutical suspensions by FT Raman spectroscopy. <i>Vibrational Spectroscopy</i> , 2017, 93, 57-64.	2.2	8
51	Silver(I) chloride-polypyrrole composite: electrochemical preparation, characterization, and application as a SERS platform. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 823-832.	2.5	3
52	Quantification of gluten in wheat flour by FT-Raman spectroscopy. <i>Food Chemistry</i> , 2016, 211, 560-563.	8.2	27
53	Microheterogeneity in binary mixtures of methanol with aliphatic alcohols: ATR-IR/NIR spectroscopic, chemometrics and DFT studies. <i>RSC Advances</i> , 2016, 6, 37195-37202.	3.6	30
54	Quantitative analysis of solid samples using modified specular reflectance accessory. <i>Talanta</i> , 2016, 161, 655-659.	5.5	3

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55	Proton-coupled electron transfer in the reduction of carbonyls using $Sml_{2} \cdot H_{2}O$: implications for the reductive coupling of acyl-type ketyl radicals with $Sml_{2} \cdot H_{2}O$. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 9151-9157.	2.8	19
56	Ground-State Distortion in N-Acyl-tert-butyl-carbamates (Boc) and N-Acyl-tosylamides (Ts): Twisted Amides of Relevance to Amide $N-C$ Cross-Coupling. <i>Journal of Organic Chemistry</i> , 2016, 81, 8091-8094.	3.2	121
57	<i>N</i> -Acylsaccharins: Stable Electrophilic Amide-Based Acyl Transfer Reagents in Pd-Catalyzed Suzuki-Miyaura Coupling via C Cleavage. <i>Organic Letters</i> , 2016, 18, 4194-4197.	4.6	103
58	Structures of Highly Twisted Amides Relevant to Amide $N-C$ Cross-Coupling: Evidence for Ground-State Amide Destabilization. <i>Chemistry - A European Journal</i> , 2016, 22, 14494-14498.	3.3	94
59	Highly Chemoselective Synthesis of Indolizidine Lactams by Sml_{2} -Induced Umpolung of the Amide Bond via Aminoketyl Radicals: Efficient Entry to Alkaloid Scaffolds. <i>Chemistry - A European Journal</i> , 2016, 22, 11949-11953.	3.3	33
60	Modeling red coral (<i>Corallium rubrum</i>) and African snail (<i>Helix aspersa</i>) shell pigments: Raman spectroscopy versus DFT studies. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 908-916.	2.5	10
61	Application of infrared reflection and Raman spectroscopy for quantitative determination of fat in potato chips. <i>Journal of Molecular Structure</i> , 2016, 1126, 213-218.	3.6	22
62	Quantitative analysis of topical gels and ointments by FT-Raman spectroscopy. <i>Vibrational Spectroscopy</i> , 2016, 83, 1-7.	2.2	16
63	An efficient computational model to predict protonation at the amide nitrogen and reactivity along the $C-N$ rotational pathway. <i>Chemical Communications</i> , 2015, 51, 6395-6398.	4.1	79
64	Determination of Structures and Energetics of Small- and Medium-Sized One-Carbon-Bridged Twisted Amides using ab Initio Molecular Orbital Methods: Implications for Amidic Resonance along the $C-N$ Rotational Pathway. <i>Journal of Organic Chemistry</i> , 2015, 80, 7905-7927.	3.2	59
65	Analysis of milk by FT-Raman spectroscopy. <i>Talanta</i> , 2015, 138, 285-289.	5.5	51
66	Quantification of active ingredients in suppositories by FT-Raman spectroscopy. <i>Drug Testing and Analysis</i> , 2013, 5, 126-129.	2.6	12
67	Quantitative Determination of Prednisone in Tablets by Infrared Attenuated Total Reflection and Raman Spectroscopy. <i>Journal of AOAC INTERNATIONAL</i> , 2012, 95, 744-750.	1.5	10
68	Quantitative analysis of thiamine hydrochloride in tablets—Comparison of infrared attenuated total reflection, diffuse reflectance infrared and Raman spectroscopy. <i>Vibrational Spectroscopy</i> , 2012, 62, 10-16.	2.2	10
69	The influence of sample area on diclofenac sodium quantification by diffuse reflectance IR spectroscopy. <i>Talanta</i> , 2011, 84, 583-586.	5.5	11
70	Chemometric Detection of Acetaminophen in Pharmaceuticals by Infrared Spectroscopy Combined with Pattern Recognition Techniques: Comparison of Attenuated Total Reflectance-FTIR and Raman Spectroscopy. <i>Journal of AOAC INTERNATIONAL</i> , 2011, 94, 743-749.	1.5	5
71	Comparison of infrared attenuated total reflection and Raman spectroscopy in the quantitative analysis of diclofenac sodium in tablets. <i>Vibrational Spectroscopy</i> , 2011, 57, 157-157.	2.2	10
72	On the blue-shifting hydrogen bond in tribromoacetaldehyde dimers. <i>Chemical Physics Letters</i> , 2011, 514, 49-53.	2.6	2

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73	Blue or red $\nu_{1/2}$ XH complexation shift in H^+CO_2 hydrogen-bonded complexes?. <i>Chemical Physics Letters</i> , 2011, 516, 166-170.	2.6	8
74	Why the $\nu_{1/2}$ CH blue shift is larger in chloral than in dichloroacetyl chloride dimers?. <i>Journal of Raman Spectroscopy</i> , 2011, 42, 1185-1192.	2.5	5
75	Quantification of aspartame in commercial sweeteners by FT-Raman spectroscopy. <i>Food Chemistry</i> , 2011, 125, 1051-1057.	8.2	37
76	C $\nu_{1/2}$...O Halogen Bonding: Interactions of Trifluoromethyl Halides with Dimethyl Ether. <i>ChemPhysChem</i> , 2009, 10, 2105-2115.	2.1	66
77	Quantification of atorvastatin calcium in tablets by FT-Raman spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2009, 49, 168-172.	2.8	40
78	Simple transformation of spectra to effectively reduce quantification errors in FT-Raman multivariate analysis of complex systems. <i>Vibrational Spectroscopy</i> , 2009, 49, 298-302.	2.2	7
79	Quantitative determination of diclofenac sodium in solid dosage forms by FT-Raman spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2008, 48, 814-821.	2.8	45
80	Electronic structure and vibrational spectra of cis-diammine(oxalato)platinum(II), a potential cisplatin analogue: DFT and experimental study. <i>Chemical Physics</i> , 2007, 333, 37-48.	1.9	71
81	Quantitative determination of captopril and prednisolone in tablets by FT-Raman spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2006, 40, 1225-1230.	2.8	96
82	Quantitative determination of diclofenac sodium and aminophylline in injection solutions by FT-Raman spectroscopy. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2006, 40, 1235-1242.	2.8	67
83	Redox switching hysteresis in polyaniline-acetate systems: a search of molecular factors important for the dynamics of the polymer reaction. <i>Journal of Electroanalytical Chemistry</i> , 2004, 571, 51-57.	3.8	10
84	FT-Raman quantitative determination of ambroxol in tablets. <i>Journal of Molecular Structure</i> , 2004, 704, 229-233.	3.6	39
85	A quantitative analysis of liquid hydrocarbon mixtures on the basis of FT-Raman spectra registered under unstable conditions. <i>Journal of Molecular Structure</i> , 2004, 704, 235-245.	3.6	11
86	Quantitative determination of acetylsalicylic acid and acetaminophen in tablets by FT-Raman spectroscopy. Electronic Supplementary Information available. See http://www.rsc.org/suppdata/an/b1/b108240j/ . <i>Analyst</i> , 2002, 127, 144-148.	3.5	134
87	The Nature of Improper, Blue-Shifting Hydrogen Bonding Verified Experimentally. <i>Journal of the American Chemical Society</i> , 2001, 123, 12290-12293.	13.7	306
88	On the HCl and DCl complexes of methylenecyclopropane in liquid argon. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 3983-3991.	2.8	8
89	Methylenecyclopropane-Boron Trifluoride van der Waals Complexes; an Infrared and DFT Study. <i>Journal of Physical Chemistry A</i> , 2000, 104, 8480-8488.	2.5	12