Henning J Jessen

List of Publications by Year in Descending Order

111 papers	2,504 citations	28 h-index	46 g-index
145 ext. papers	3,289 ext. citations	8.1 avg, IF	5.31 L-index

#	Paper	IF	Citations
111	Innentitelbild: Stable Isotope Phosphate Labelling of Diverse Metabolites is Enabled by a Family of 18O-Phosphoramidites (Angew. Chem. 5/2022). *Angewandte Chemie*, **2022**, 134, e202117675	3.6	
110	A structural exposé of noncanonical molecular reactivity within the protein tyrosine phosphatase WPD loop.. *Nature Communications*, **2022**, 13, 2231	17.4	0
109	Activities and Structure-Function Analysis of Fission Yeast Inositol Pyrophosphate (IPP) Kinase-Pyrophosphatase Asp1 and Its Impact on Regulation of Gene Expression.. *MBio*, **2022**, e0103422	7.8	2
108	The inositol pyrophosphate metabolism of Dictyostelium discoideum does not regulate inorganic polyphosphate (polyP) synthesis. *Advances in Biological Regulation*, **2021**, 100835	6.2	1
107	Polyphosphate degradation by Nudt3-Zn mediates oxidative stress response. *Cell Reports*, **2021**, 37, 110004	10.4	3
106	Lost in Condensation: Poly-, Cyclo-, and Ultraphosphates. *Accounts of Chemical Research*, **2021**, 54, 4036-4050	24.3	3
105	Pyridinium Modified Anthracenes and Their Endoperoxides Provide a Tunable Scaffold with Activity against Gram-Positive and Gram-Negative Bacteria. *ACS Infectious Diseases*, **2021**, 7, 2073-2080	5.5	2
104	ePharmaLib: A Versatile Library of e-Pharmacophores to Address Small-Molecule (Poly-)Pharmacology. *Journal of Chemical Information and Modeling*, **2021**, 61, 3659-3666	6.1	1
103	The Inositol Pyrophosphate Biosynthetic Pathway of. *ACS Chemical Biology*, **2021**, 16, 283-292	4.9	1
102	New structural insights reveal an expanded reaction cycle for inositol pyrophosphate hydrolysis by human DIPP1. *FASEB Journal*, **2021**, 35, e21275	0.9	2
101	ITPK1 is an InsP/ADP phosphotransferase that controls phosphate signaling in Arabidopsis. *Molecular Plant*, **2021**, 14, 1864-1880	14.4	9
100	Absolute Quantitation of Inositol Pyrophosphates by Capillary Electrophoresis Electrospray Ionization Mass Spectrometry. *Journal of Visualized Experiments*, **2021**,	1.6	1
99	The chemistry of branched condensed phosphates. *Nature Communications*, **2021**, 12, 5368	17.4	4
98	Intracellular polyphosphate length characterization in polyphosphate accumulating microorganisms (PAOs): Implications in PAO phenotypic diversity and enhanced biological phosphorus removal performance. *Water Research*, **2021**, 206, 117726	12.5	4
97	A fully reversible 25-hydroxy steroid kinase involved in oxygen-independent cholesterol side-chain oxidation. *Journal of Biological Chemistry*, **2021**, 297, 101105	5.4	0
96	Rapid Synthesis of Nucleoside Triphosphates and Analogues. *Current Protocols in Nucleic Acid Chemistry*, **2020**, 81, e108	0.5	
95	Photolysis of Caged Inositol Pyrophosphate InsP Directly Modulates Intracellular Ca Oscillations and Controls C2AB Domain Localization. *Journal of the American Chemical Society*, **2020**, 142, 10606-10611	16.4	4

94	Photo-releasable derivatives of inositol pyrophosphates. *Methods in Enzymology*, **2020**, 641, 53-73	1.7	1
93	Four Phosphates at One Blow: Access to Pentaphosphorylated Magic Spot Nucleotides and Their Analysis by Capillary Electrophoresis. *Journal of Organic Chemistry*, **2020**, 85, 14496-14506	4.2	5
92	Control of XPR1-dependent cellular phosphate efflux by InsP is an exemplar for functionally-exclusive inositol pyrophosphate signaling. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 3568-3574	11.5	36
91	Multiple Light Control Mechanisms in ATP-Fueled Non-equilibrium DNA Systems. *Angewandte Chemie - International Edition*, **2020**, 59, 12084-12092	16.4	35
90	Cyclotriphosphate: A Brief History, Recent Developments, and Perspectives in Synthesis. *Chemistry - A European Journal*, **2020**, 26, 2298-2308	4.8	15
89	Development of a yeast model to study the contribution of vacuolar polyphosphate metabolism to lysine polyphosphorylation. *Journal of Biological Chemistry*, **2020**, 295, 1439-1451	5.4	10
88	Multiple Light Control Mechanisms in ATP-Fueled Non-equilibrium DNA Systems. *Angewandte Chemie*, **2020**, 132, 12182-12190	3.6	9
87	Analysis of inositol phosphate metabolism by capillary electrophoresis electrospray ionization mass spectrometry. *Nature Communications*, **2020**, 11, 6035	17.4	19
86	ATP-dependent hydroxylation of an unactivated primary carbon with water. *Nature Communications*, **2020**, 11, 3906	17.4	3
85	InsP is a small-molecule regulator of NUDT3-mediated mRNA decapping and processing-body dynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 19245-19253	11.5	10
84	The inositol pyrophosphate 5-InsP drives sodium-potassium pump degradation by relieving an autoinhibitory domain of PI3K p85*Science Advances*, **2020**, 6,	14.3	6
83	Rapid stimulation of cellular Pi uptake by the inositol pyrophosphate InsP induced by its photothermal release from lipid nanocarriers using a near infra-red light-emitting diode. *Chemical Science*, **2020**, 11, 10265-10278	9.4	1
82	Synthesis of Modified Nucleoside Oligophosphates Simplified: Fast, Pure, and Protecting Group Free. *Journal of the American Chemical Society*, **2019**, 141, 15013-15017	16.4	14
81	ITPK1 and ITPK2 Have an Evolutionarily Conserved Phytic Acid Kinase Activity. *ACS Chemical Biology* , **2019**, 14, 2127-2133	4.9	28
80	A Phosphoramidite Analogue of Cyclotriphosphate Enables Iterative Polyphosphorylations. *Angewandte Chemie - International Edition*, **2019**, 58, 3928-3933	16.4	16
79	A Phosphoramidite Analogue of Cyclotriphosphate Enables Iterative Polyphosphorylations. *Angewandte Chemie*, **2019**, 131, 3968-3973	3.6	5
78	Photolysis of cell-permeant caged inositol pyrophosphates controls oscillations of cytosolic calcium in a cell line. *Chemical Science*, **2019**, 10, 2687-2692	9.4	14
77	The inositol hexakisphosphate kinases IP6K1 and -2 regulate human cellular phosphate homeostasis, including XPR1-mediated phosphate export. *Journal of Biological Chemistry*, **2019**, 294, 11597-11608	5.4	41

76	Inositol polyphosphates promote T cell-independent humoral immunity via the regulation of Bruton's tyrosine kinase. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 12952-12957	11.5	9
75	Trehalose Conjugation Enhances Toxicity of Photosensitizers against Mycobacteria. *ACS Central Science*, **2019**, 5, 644-650	16.8	10
74	Dynamics of Substrate Processing by PPIP5K2, a Versatile Catalytic Machine. *Structure*, **2019**, 27, 1022-1028.e27	5.8	7
73	Magic spot nucleotides: tunable target-specific chemoenzymatic synthesis. *Chemical Communications*, **2019**, 55, 5339-5342	5.8	8
72	Inositol Pyrophosphate InsP Acts as an Intracellular Phosphate Signal in Arabidopsis. *Molecular Plant*, **2019**, 12, 1463-1473	14.4	69
71	Two bifunctional inositol pyrophosphate kinases/phosphatases control plant phosphate homeostasis. *ELife*, **2019**, 8,	8.9	63
70	Several Polyphosphate Kinase 2 Enzymes Catalyse the Production of Adenosine 5'-Polyphosphates. *ChemBioChem*, **2019**, 20, 1019-1022	3.8	26
69	Lipidic Mesophase-Embedded Palladium Nanoparticles: Synthesis and Tunable Catalysts in Suzuki-Miyaura Cross-Coupling Reactions. *Langmuir*, **2019**, 35, 120-127	4	11
68	Inositol Pyrophosphate Synthesis by Diphosphoinositol Pentakisphosphate Kinase-1 is Regulated by Phosphatidylinositol(4,5)bisphosphate. *Bioscience Reports*, **2018**, 38,	4.1	7
67	The Hitchhiker Guide to Organophosphate Chemistry. *Synlett*, **2018**, 29, 699-713	2.2	6
66	Lipidic Mesophases as Novel Nanoreactor Scaffolds for Organocatalysts: Heterogeneously Catalyzed Asymmetric Aldol Reactions in Confined Water. *ACS Applied Materials & Interfaces*, **2018**, 10, 5114-5124	9.5	28
65	Substrate recognition and mechanism revealed by ligand-bound polyphosphate kinase 2 structures. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 3350-3355	11.5	32
64	Screening a Protein Array with Synthetic Biotinylated Inorganic Polyphosphate To Define the Human PolyP-ome. *ACS Chemical Biology*, **2018**, 13, 1958-1963	4.9	28
63	Delivery of Inorganic Polyphosphate into Cells Using Amphipathic Oligocarbonate Transporters. *ACS Central Science*, **2018**, 4, 1394-1402	16.8	11
62	5-Diphosphoinositol pentakisphosphate (5-IP) regulates phosphate release from acidocalcisomes and yeast vacuoles. *Journal of Biological Chemistry*, **2018**, 293, 19101-19112	5.4	20
61	Hydrophilic interaction liquid chromatography-tandem mass spectrometry for the quantitative analysis of mammalian-derived inositol poly/pyrophosphates. *Journal of Chromatography A*, **2018**, 1573, 87-97	4.5	10
60	Structural and biochemical characterization of Siw14: A protein-tyrosine phosphatase fold that metabolizes inositol pyrophosphates. *Journal of Biological Chemistry*, **2018**, 293, 6905-6914	5.4	11
59	Use of Protein Kinase-Focused Compound Libraries for the Discovery of New Inositol Phosphate Kinase Inhibitors. *SLAS Discovery*, **2018**, 23, 982-988	3.4	9

58	Biological evaluation of pyridone alkaloids on the endocannabinoid system. *Bioorganic and Medicinal Chemistry*, **2017**, 25, 6102-6114	3.4	8
57	Inositol Pyrophosphate Specificity of the SPX-Dependent Polyphosphate Polymerase VTC. *ACS Chemical Biology*, **2017**, 12, 648-653	4.9	51
56	New Synthetic Methods for Phosphate Labeling. *Topics in Current Chemistry*, **2017**, 375, 51	7.2	6
55	The Significance of the Bifunctional Kinase/Phosphatase Activities of Diphosphoinositol Pentakisphosphate Kinases (PPIP5Ks) for Coupling Inositol Pyrophosphate Cell Signaling to Cellular Phosphate Homeostasis. *Journal of Biological Chemistry*, **2017**, 292, 4544-4555	5.4	40
54	KO of 5-InsP kinase activity transforms the HCT116 colon cancer cell line into a hypermetabolic, growth-inhibited phenotype. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 11968-11973	11.5	39
53	A 1-phytase type III effector interferes with plant hormone signaling. *Nature Communications*, **2017**, 8, 2159	17.4	20
52	Retraction: A High-Throughput Screening-Compatible Strategy for the Identification of Inositol Pyrophosphate Kinase Inhibitors. *PLoS ONE*, **2017**, 12, e0180272	3.7	1
51	Identifying Kinase Substrates via a Heavy ATP Kinase Assay and Quantitative Mass Spectrometry. *Scientific Reports*, **2016**, 6, 28107	4.9	12
50	Chemoselective Dimerization of Phosphates. *Organic Letters*, **2016**, 18, 3222-5	6.2	15
49	Cellular delivery and photochemical release of a caged inositol-pyrophosphate induces PH-domain translocation in cellulo. *Nature Communications*, **2016**, 7, 10622	17.4	62
48	Synthesis of 2-diphospho-myo-inositol 1,3,4,5,6-pentakisphosphate and a photocaged analogue. *Organic and Biomolecular Chemistry*, **2016**, 14, 5559-62	3.9	9
47	A High-Throughput Screening-Compatible Strategy for the Identification of Inositol Pyrophosphate Kinase Inhibitors. *PLoS ONE*, **2016**, 11, e0164378	3.7	2
46	Inositol Pyrophosphate Profiling of Two HCT116 Cell Lines Uncovers Variation in InsP8 Levels. *PLoS ONE*, **2016**, 11, e0165286	3.7	25
45	Inositol pyrophosphates inhibit synaptotagmin-dependent exocytosis. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 8314-9	11.5	30
44	Control of eukaryotic phosphate homeostasis by inositol polyphosphate sensor domains. *Science*, **2016**, 352, 986-90	33.3	280
43	Vtc5, a Novel Subunit of the Vacuolar Transporter Chaperone Complex, Regulates Polyphosphate Synthesis and Phosphate Homeostasis in Yeast. *Journal of Biological Chemistry*, **2016**, 291, 22262-22275	5.4	45
42	Desymmetrization of myo-inositol derivatives by lanthanide catalyzed phosphitylation with C2-symmetric phosphites. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 2854-61	3.4	6
41	Prometabolites of 5-Diphospho-myo-inositol Pentakisphosphate. *Angewandte Chemie - International Edition*, **2015**, 54, 9622-6	16.4	28

40	A Modular Synthesis of Modified Phosphoanhydrides. *Chemistry - A European Journal*, **2015**, 21, 10116-22	5.8	27
39	Prometabolites of 5-Diphospho-myo-inositol Pentakisphosphate. *Angewandte Chemie*, **2015**, 127, 9758-9762	3.6	3
38	The 8 Young Faculty Meeting - An Active Crowd Attuned to Modern Challenges. *Chimia*, **2015**, 69, 475-477	1.3	
37	VIH2 Regulates the Synthesis of Inositol Pyrophosphate InsP8 and Jasmonate-Dependent Defenses in Arabidopsis. *Plant Cell*, **2015**, 27, 1082-97	11.6	99
36	Asp1 from Schizosaccharomyces pombe binds a [2Fe-2S](2+) cluster which inhibits inositol pyrophosphate 1-phosphatase activity. *Biochemistry*, **2015**, 54, 6462-74	3.2	29
35	Rational Development of Nucleoside Diphosphate Prodrugs: DiPPro-Compounds. *Current Medicinal Chemistry*, **2015**, 22, 3933-50	4.3	21
34	Iterative Synthese von Nukleosidoligophosphaten mit Phosphoramiditen. *Angewandte Chemie*, **2014**, 126, 290-294	3.6	18
33	Phosphate esters and anhydrides--recent strategies targeting nature's favoured modifications. *Organic and Biomolecular Chemistry*, **2014**, 12, 3526-30	3.9	40
32	Synthesis of densely phosphorylated bis-1,5-diphospho-myo-inositol tetrakisphosphate and its enantiomer by bidirectional P-anhydride formation. *Angewandte Chemie - International Edition*, **2014**, 53, 9508-11	16.4	55
31	Elucidating diphosphoinositol polyphosphate function with nonhydrolyzable analogues. *Angewandte Chemie - International Edition*, **2014**, 53, 7192-7	16.4	40
30	Diphosphoinositol Polyphosphates: Polar Stars in Cell Signaling. *Synlett*, **2014**, 25, 1494-1498	2.2	6
29	Catalytic Enantioselective Total Synthesis of (−)-Pyridovericin. *Synthesis*, **2014**, 46, 864-870	2.9	4
28	Elucidating Diphosphoinositol Polyphosphate Function with Nonhydrolyzable Analogues. *Angewandte Chemie*, **2014**, 126, 7320-7325	3.6	12
27	Synthesis of Densely Phosphorylated Bis-1,5-Diphospho-myo-Inositol Tetrakisphosphate and its Enantiomer by Bidirectional P-Anhydride Formation. *Angewandte Chemie*, **2014**, 126, 9662-9665	3.6	10
26	Iterative synthesis of nucleoside oligophosphates with phosphoramidites. *Angewandte Chemie - International Edition*, **2014**, 53, 286-9	16.4	48
25	Controlled oxygen release from pyridone endoperoxides promotes cell survival under anoxic conditions. *Journal of Medicinal Chemistry*, **2013**, 56, 10171-82	8.3	56
24	Truncated militarinone fragments identified by total chemical synthesis induce neurite outgrowth. *MedChemComm*, **2013**, 4, 135-139	5	23
23	Withanolide A: synthesis and structural requirements for neurite outgrowth. *Chemical Science*, **2013**, 4, 2851	9.4	24

22	Synthesis of unsymmetric diphospho-inositol polyphosphates. *Angewandte Chemie - International Edition*, **2013**, 52, 6912-6	16.4	65
21	The 48 EUCHEMS Conference on Stereochemistry B□genstock Conference 2013. *Chimia*, **2013**, 67, 671-673	0.5	
20	Synthesis of Unsymmetric Diphospho-Inositol Polyphosphates. *Angewandte Chemie*, **2013**, 125, 7050-7054	3.6	16
19	Catalytic enantioselective total synthesis of (+)-torrubiellone C. *Organic Letters*, **2011**, 13, 4368-70	6.2	38
18	Ein einheitlicher Ansatz zur stereoselektiven Totalsynthese von Pyridonalkaloiden und deren neuritogene Aktivit□t. *Angewandte Chemie*, **2011**, 123, 4308-4312	3.6	28
17	Synthese von Withanolid A, Untersuchung der neuritogenen Eigenschaften und Studien zur Sekretase-Inhibierung. *Angewandte Chemie*, **2011**, 123, 8557-8561	3.6	14
16	A unified approach for the stereoselective total synthesis of pyridone alkaloids and their neuritogenic activity. *Angewandte Chemie - International Edition*, **2011**, 50, 4222-6	16.4	72
15	Synthesis of withanolide A, biological evaluation of its neuritogenic properties, and studies on secretase inhibition. *Angewandte Chemie - International Edition*, **2011**, 50, 8407-11	16.4	44
14	4-Hydroxy-2-pyridone alkaloids: structures and synthetic approaches. *Natural Product Reports*, **2010**, 27, 1168-85	15.1	160
13	Totalsynthese des marinen Alkaloids Palau□min. *Angewandte Chemie*, **2010**, 122, 3034-3036	3.6	1
12	Total synthesis of the marine alkaloid palau'amine. *Angewandte Chemie - International Edition*, **2010**, 49, 2972-4	16.4	9
11	Total synthesis and neuritotrophic activity of farinosone C and derivatives. *Organic Letters*, **2009**, 11, 3446-9	6.2	35
10	Intracellular trapping of cycloSal-pronucleotides: modification of prodrugs with amino acid esters. *Journal of Medicinal Chemistry*, **2008**, 51, 6592-8	8.3	20
9	Nucleoside diphosphate prodrugs. *Nucleic Acids Symposium Series*, **2008**, 83-4		5
8	Bioreversible protection of nucleoside diphosphates. *Angewandte Chemie - International Edition*, **2008**, 47, 8719-22	16.4	70
7	Bioreversible Maskierung von Nucleosiddiphosphaten. *Angewandte Chemie*, **2008**, 120, 8847-8850	3.6	21
6	Intracellular trapping of cycloSal-pronucleotides by enzymatic cleavage. *Nucleosides, Nucleotides and Nucleic Acids*, **2007**, 26, 827-30	1.4	1
5	Second-Generation cycloSal-d4TMP Pronucleotides Bearing Esterase-Cleavable Sites □The □trapping□Concept. *European Journal of Organic Chemistry*, **2006**, 2006, 197-206	3.2	23

4	Synthesis and Properties of Fluorescent cycloSal Nucleotides Based on the Pyrimidine Nucleoside m5K and Its 2?,3?-Dideoxy Analog dm5K. *European Journal of Organic Chemistry*, **2006**, 2006, 924-931	3.2	4
3	Two bifunctional inositol pyrophosphate kinases/phosphatases control plant phosphate homeostasis		1
2	ITPK1-Dependent Inositol Polyphosphates Regulate Auxin Responses inArabidopsis thaliana		4
1	ITPK1 is an InsP6/ADP phosphotransferase that controls systemic phosphate homeostasis in Arabidopsis		1