Dietrich Ober

List of Publications by Year
in descending order

43 papers	1,731 citations	304743 22 h-index	289244 40 g-index
44 all docs	44 docs citations	44 times ranked	1541 citing authors

#	Article	IF	Citations
1	Seeing double: gene duplication and diversification in plant secondary metabolism. Trends in Plant Science, 2005, 10, 444-449.	8.8	153
2	Evolutionary recruitment of a flavin-dependent monooxygenase for the detoxification of host plant-acquired pyrrolizidine alkaloids in the alkaloid-defended arctiid moth Tyria jacobaeae. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 6085-6090.	7.1	113
3	Biosynthesis and Metabolism of Pyrrolizidine Alkaloids in Plants and Specialized Insect Herbivores. Topics in Current Chemistry, 2000, , 207-243.	4.0	99
4	Repeated Evolution of the Pyrrolizidine Alkaloidâ€“Mediated Defense System in Separate Angiosperm Lineages wâƒž. Plant Cell, 2004, 16, 2772-2784.	6.6	94
5	Familial classification of the Boraginales. Taxon, 2016, 65, 502-522.	0.7	93
6	Deoxyhypusine Synthase from Tobacco. Journal of Biological Chemistry, 1999, 274, 32040-32047.	3.4	78
7	Cell-Specific Expression of Homospermidine Synthase, the Entry Enzyme of the Pyrrolizidine Alkaloid Pathway in Senecio vernalis, in Comparison with Its Ancestor, Deoxyhypusine Synthase. Plant Physiology, 2002, 130, 47-57.	4.8	68
8	Pyrrolizidine alkaloid biosynthesis, evolution of a pathway in plant secondary metabolism. Phytochemistry, 2009, 70, 1687-1695.	2.9	68
9	The evolution of pyrrolizidine alkaloid biosynthesis and diversity in the Senecioneae. Phytochemistry Reviews, 2011, 10, 3-74.	6.5	64
10	Biosynthesis of pyrrolizidine alkaloids: putrescine and spermidine are essential substrates of enzymatic homospermidine formation. Canadian Journal of Chemistry, 1994, 72, 80-85.	1.1	60
11	Flavin-Dependent Monooxygenases as a Detoxification Mechanism in Insects: New Insights from the Arctiids (Lepidoptera). PLoS ONE, 2010, 5, e10435.	2.5	60
12	Molecular Evolution by Change of Function. Journal of Biological Chemistry, 2003, 278, 12805-12812.	3.4	58
13	New aspect of plantâ€“rhizobia interaction: Alkaloid biosynthesis in <i>Crotalaria</i> depends on nodulation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4164-4169.	7.1	52
14	Polyphyletic Origin of Pyrrolizidine Alkaloids within the Asteraceae. Evidence from Differential Tissue Expression of Homospermidine Synthase. Plant Physiology, 2004, 136, 4037-4047.	4.8	51
15	Tissue distribution, core biosynthesis and diversification of pyrrolizidine alkaloids of the lycopsamine type in three Boraginaceae species. Phytochemistry, 2007, 68, 1026-1037.	2.9	48
16	Phylogenetic origin of a secondary pathway: the case of pyrrolizidine alkaloids. Plant Molecular Biology, 2000, 44, 445-450.	3.9	42
17	Tissue distribution and biosynthesis of 1,2-saturated pyrrolizidine alkaloids in Phalaenopsis hybrids (Orchidaceae). Phytochemistry, 2006, 67, 1493-1502.	2.9	42
18	Purification, Molecular Cloning and Expression in Escherichia coli of Homospermidine Synthase from Rhodopseudomonas viridis. FEBS Journal, 1996, 240, 373-379.	0.2	38

#	Article	IF	Citations
19	Evolution of Homospermidine Synthase in the Convolvulaceae: A Story of Gene Duplication, Gene Loss, and Periods of Various Selection Pressures Â Â. Plant Cell, 2013, 25, 1213-1227.	6.6	38
20	Evidence for general occurrence of homospermidine in plants and its supposed origin as by-product of deoxyhypusine synthase. Phytochemistry, 2003, 62, 339-344.	2.9	34
21	Paralogue Interference Affects the Dynamics after Gene Duplication. Trends in Plant Science, 2015, 20, 814-821.	8.8	31
22	Evolution of pyrrolizidine alkaloids in Phalaenopsis orchids and other monocotyledons: Identification of deoxyhypusine synthase, homospermidine synthase and related pseudogenes. Phytochemistry, 2009, 70, 508-516.	2.9	24
23	Pyrrolizidine Alkaloid Biosynthesis in <i>Phalaenopsis</i> Orchids: Developmental Expression of Alkaloid-Specific Homospermidine Synthase in Root Tips and Young Flower Buds. Plant Physiology, 2008, 148, 751-760.	4.8	23
24	Independent Recruitment of a Flavin-Dependent Monooxygenase for Safe Accumulation of Sequestered Pyrrolizidine Alkaloids in Grasshoppers and Moths. PLoS ONE, 2012, 7, e31796.	2.5	23
25	Specific Distribution of Pyrrolizidine Alkaloids in Floral Parts of Comfrey (Symphytum officinale) and its Implications for Flower Ecology. Journal of Chemical Ecology, 2019, 45, 128-135.	1.8	23
26	Evolutionary recruitment of a flavin-dependent monooxygenase for stabilization of sequestered pyrrolizidine alkaloids in arctiids. Phytochemistry, 2011, 72, 1576-1584.	2.9	22
27	Defense by Pyrrolizidine Alkaloids: Developed by Plants and Recruited by Insects. , 2008, , 213-231.		22
28	Identification of a Second Site of Pyrrolizidine Alkaloid Biosynthesis in Comfrey to Boost Plant Defense in Floral Stage[,]. Plant Physiology, 2017, 174, 47-55.	4.8	21
29	Comprehensive Structural Characterization of the Bacterial Homospermidine Synthaseâ€"an Essential Enzyme of the Polyamine Metabolism. Scientific Reports, 2016, 6, 19501.	3.3	19
30	CRISPR/Cas9-Mediated Genome Editing in Comfrey (Symphytum officinale) Hairy Roots Results in the Complete Eradication of Pyrrolizidine Alkaloids. Molecules, 2021, 26, 1498.	3.8	19
31	Distinct Cell-Specific Expression of Homospermidine Synthase Involved in Pyrrolizidine Alkaloid Biosynthesis in Three Species of the Boraginales Â Â Â. Plant Physiology, 2012, 159, 920-929.	4.8	18
32	A complete digitization of German herbaria is possible, sensible and should be started now. Research Ideas and Outcomes, 0, 6, .	1.0	18
33	Homospermidine synthase of Rhodopseudomonas viridis: Substrate specificity and effects of the heterologously expressed enzyme on polyamine metabolism of Escherichia coli.. Journal of General and Applied Microbiology, 1996, 42, 411-419.	0.7	17
34	Recruitment of alkaloid-specific homospermidine synthase (HSS) from ubiquitous deoxyhypusine synthase: Does Crotalaria possess a functional HSS that still has DHS activity?. Phytochemistry, 2005, 66, 1346-1357.	2.9	17
35	Homospermidine in transgenic tobacco results in considerably reduced spermidine levels but is not converted to pyrrolizidine alkaloid precursors. Plant Molecular Biology, 2009, 71, 145-155.	3.9	13
36	Crystal structure of pyrrolizidine alkaloid<i>N</i>-oxygenase from the grasshopper<i>Zonocerus variegatus</i>. Acta Crystallographica Section D: Structural Biology, 2018, 74, 422-432.	2.3	12

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37	Reduction of Pyrrolizidine Alkaloid Levels in Comfrey (Symphytum officinale) Hairy Roots by RNAi Silencing of Homospermidine Synthase. Planta Medica, 2019, 85, 1177-1186.	1.3	12
38	Insights into polyamine metabolism: homospermidine is double-oxidized in two discrete steps by a single copper-containing amine oxidase in pyrrolizidine alkaloid biosynthesis. Plant Cell, 2022, 34, 2364-2382.	6.6	11
39	Chapter nine Chemical ecology of alkaloids exemplified with the pyrrolizidines. Recent Advances in Phytochemistry, 2003, 37, 203-230.	0.5	10
40	Variability of Pyrrolizidine Alkaloid Occurrence in Species of the Grass Subfamily Pooideae (Poaceae). Frontiers in Plant Science, 2017, 8, 2046.	3.6	9
41	Single cell subtractive transcriptomics for identification of cell-specifically expressed candidate genes of pyrrolizidine alkaloid biosynthesis. Phytochemistry, 2015, 117, 17-24.	2.9	7
42	Development of an activity assay for characterizing deoxyhypusine synthase and its diverse reaction products. FEBS Open Bio, 2021, 11, 10-25.	2.3	5
43	Radioactive Tracer Feeding Experiments and Product Analysis to Determine the Biosynthetic Capability of Comfrey (Symphytum officinale) Leaves for Pyrrolizidine Alkaloids. Bio-protocol, 2018, 8, e2719.	0.4	2