Gadi Schuster

List of Publications by Year
in descending order

80 papers	5,274 citations	66315 42 h-index	85498 71 g-index
84 all docs	84 docs citations	84 times ranked	3969 citing authors

#	Article	IF	Citations
1	Bioelectricity generation from live marine photosynthetic macroalgae. Biosensors and Bioelectronics, 2022, 198, 113824.	5.3	30
2	The desert green algae <i>Chlorella ohadii</i> thrives at excessively high light intensities by exceptionally enhancing the mechanisms that protect photosynthesis from photoinhibition. Plant Journal, 2021, 106, 1260-1277.	2.8	24
3	Cryo-EM photosystem I structure reveals adaptation mechanisms to extreme high light in Chlorella ohadii. Nature Plants, 2021, 7, 1314-1322.	4.7	18
4	NADPH performs mediated electron transfer in cyanobacterial-driven bio-photoelectrochemical cells. IScience, 2021, 24, 101892.	1.9	42
5	Electron Mediation and Photocurrent Enhancement in Dunalliela salina Driven Bio-Photo Electrochemical Cells. Catalysts, 2021, 11, 1220.	1.6	23
6	Plant Ribonuclease J: An Essential Player in Maintaining Chloroplast RNA Quality Control for Gene Expression. Plants, 2020, 9, 334.	1.6	5
7	The Arabidopsis chloroplast RNase J displays both exo- and robust endonucleolytic activities. Plant Molecular Biology, 2019, 99, 17-29.	2.0	18
8	Live cyanobacteria produce photocurrent and hydrogen using both the respiratory and photosynthetic systems. Nature Communications, 2018, 9, 2168.	5.8	104
9	Polyadenylation and degradation of RNA in the mitochondria. Biochemical Society Transactions, 2016, 44, 1475-1482.	1.6	19
10	Hybrid bio-photo-electro-chemical cells for solar water splitting. Nature Communications, 2016, 7, 12552.	5.8	74
11	Identification of LACTB2, a metallo-Î²-lactamase protein, as a human mitochondrial endoribonuclease. Nucleic Acids Research, 2016, 44, 1813-1832.	6.5	37
12	The Photosystem II D1-K238E mutation enhances electrical current production using cyanobacterial thylakoid membranes in a bio-photoelectrochemical cell. Photosynthesis Research, 2015, 126, 161-169.	1.6	23
13	Photosynthetic Membranes of Synechocystis or Plants Convert Sunlight to Photocurrent through Different Pathways due to Different Architectures. PLoS ONE, 2015, 10, e0122616.	1.1	26
14	Oligo(dT)-primed RT-PCR Isolation of Polyadenylated RNA Degradation Intermediates. Methods in Enzymology, 2013, 530, 209-226.	0.4	3
15	Circularized RT-PCR (cRT-PCR). Methods in Enzymology, 2013, 530, 227-251.	0.4	20
16	RHON1 is a novel ribonucleic acid-binding protein that supports RNase E function in the Arabidopsis chloroplast. Nucleic Acids Research, 2012, 40, 8593-8606.	6.5	47
17	The rnb Gene of Synechocystis PCC6803 Encodes a RNA Hydrolase Displaying RNase II and Not RNase R Enzymatic Properties. PLoS ONE, 2012, 7, e32690.	1.1	13
18	Mutational analysis of Arabidopsis chloroplast polynucleotide phosphorylase reveals roles for both RNase PH core domains in polyadenylation, RNA 3â€²â€end maturation and intron degradation. Plant Journal, 2011, 67, 381-394.	2.8	42

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19	Chloroplast RNase J compensates for inefficient transcription termination by removal of antisense RNA. Rna, 2011, 17, 2165-2176.	1.6	68
20	Exonucleases and endonucleases involved in polyadenylationâ€•assisted RNA decay. Wiley Interdisciplinary Reviews RNA, 2011, 2, 106-123.	3.2	15
21	Distinct activities of several RNase J proteins in methanogenic archaea. RNA Biology, 2011, 8, 1073-1083.	1.5	37
22	Mechanism of RNA stabilization and translational activation by a pentatricopeptide repeat protein. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 415-420.	3.3	262
23	Dis3-like 1: a novel exoribonuclease associated with the human exosome. EMBO Journal, 2010, 29, 2358-2367.	3.5	134
24	Addition of poly(A) and poly(A)-rich tails during RNA degradation in the cytoplasm of human cells. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7407-7412.	3.3	54
25	Engineering of an alternative electron transfer path in photosystem II. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9650-9655.	3.3	49
26	Polyadenylation in Arabidopsis and <i>Chlamydomonas</i> organelles: the input of nucleotidyltransferases, poly(A) polymerases and polynucleotide phosphorylase. Plant Journal, 2009, 59, 88-99.	2.8	50
27	Chapter 10 RNA Polyadenylation and Decay in Mitochondria and Chloroplasts. Progress in Molecular Biology and Translational Science, 2009, 85, 393-422.	0.9	90
28	Analysis of the human polynucleotide phosphorylase (PNPase) reveals differences in RNA binding and response to phosphate compared to its bacterial and chloroplast counterparts. Rna, 2008, 14, 297-309.	1.6	44
29	Mycoplasma gallisepticum as the first analyzed bacterium in which RNA is not polyadenylated. FEMS Microbiology Letters, 2008, 283, 97-103.	0.7	11
30	Overexpression of mutated forms of aspartate kinase and cystathionine Î³-synthase in tobacco leaves resulted in the high accumulation of methionine and threonine. Plant Journal, 2008, 54, 260-271.	2.8	66
31	Chapter 24 Detection and Characterization of Polyadenylated RNA in Eukarya, Bacteria, Archaea, and Organelles. Methods in Enzymology, 2008, 447, 501-520.	0.4	13
32	Polynucleotide phosphorylase and the archaeal exosome as poly(A)-polymerases. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2008, 1779, 247-255.	0.9	57
33	The RNase E/G-type endoribonuclease of higher plants is located in the chloroplast and cleaves RNA similarly to the <i>E. coli</i> enzyme. Rna, 2008, 14, 1057-1068.	1.6	63
34	Stable PNPase RNAi silencing: Its effect on the processing and adenylation of human mitochondrial RNA. Rna, 2007, 14, 310-323.	1.6	72
35	Processing, degradation, and polyadenylation of chloroplast transcripts. Topics in Current Genetics, 2007, , 175-211.	0.7	29
36	Lysine enhances methionine content by modulating the expression of <i>S</i>â€adenosylmethionine synthase. Plant Journal, 2007, 51, 850-861.	2.8	33

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37	The PNPase, exosome and RNA helicases as the building components of evolutionarily-conserved RNA degradation machines. Journal of Biomedical Science, 2007, 14, 523-532.	2.6	61
38	Anin vivointernal deletion in the N-terminus region of Arabidopsis cystathionineÎ³-synthase results in CGS expression that is insensitive to methionine. Plant Journal, 2006, 45, 955-967.	2.8	57
39	Polyadenylation of ribosomal RNA in human cells. Nucleic Acids Research, 2006, 34, 2966-2975.	6.5	113
40	RNA polyadenylation and degradation in different Archaea; roles of the exosome and RNase R. Nucleic Acids Research, 2006, 34, 5923-5931.	6.5	66
41	RNA Polyadenylation in Prokaryotes and Organelles; Different Tails Tell Different Tales. Critical Reviews in Plant Sciences, 2006, 25, 65-77.	2.7	45
42	The construction of DNA molecules of figure-eight structure. Analytical Biochemistry, 2005, 344, 86-91.	1.1	3
43	RNA polyadenylation in Archaea: not observed in Haloferax while the exosome polynucleotidylates RNA in Sulfolobus. EMBO Reports, 2005, 6, 1188-1193.	2.0	82
44	Polyadenylation and Degradation of Human Mitochondrial RNA: the Prokaryotic Past Leaves Its Mark. Molecular and Cellular Biology, 2005, 25, 6427-6435.	1.1	152
45	Cooperation of Endo- and Exoribonucleases in Chloroplast mRNA Turnover. Progress in Molecular Biology and Translational Science, 2004, 78, 305-337.	1.9	74
46	Identification of guttation fluid proteins: the presence of pathogenesis-related proteins in non-infected barley plants. Physiologia Plantarum, 2003, 119, 192-202.	2.6	57
47	RNA-binding properties of HCF152, an Arabidopsis PPR protein involved in the processing of chloroplast RNA. FEBS Journal, 2003, 270, 4070-4081.	0.2	109
48	Domain Analysis of the Chloroplast Polynucleotide Phosphorylase Reveals Discrete Functions in RNA Degradation, Polyadenylation, and Sequence Homology with Exosome Proteins. Plant Cell, 2003, 15, 2003-2019.	3.1	68
49	HCF152, an Arabidopsis RNA Binding Pentatricopeptide Repeat Protein Involved in the Processing of Chloroplast psbB-psbT-psbH-petB-petD RNAs. Plant Cell, 2003, 15, 1480-1495.	3.1	270
50	RNA Polyadenylation and Degradation in Cyanobacteria Are Similar to the Chloroplast but Different from Escherichia coli. Journal of Biological Chemistry, 2003, 278, 15771-15777.	1.6	101
51	Evidence forin vivomodulation of chloroplast RNA stability by 3â€²-UTR homopolymeric tails inChlamydomonas reinhardtii. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4085-4090.	3.3	52
52	Substrate recognition by ADAR1 and ADAR2. Rna, 2001, 7, 846-858.	1.6	193
53	Insertion of polydeoxyadenosine-rich sequences into an intergenic region increases transcription in Chlamydomonas reinhardtii chloroplasts. Planta, 2001, 212, 851-857.	1.6	11
54	Polynucleotide Phosphorylase Functions as Both an Exonuclease and a Poly(A) Polymerase in Spinach Chloroplasts. Molecular and Cellular Biology, 2001, 21, 5408-5416.	1.1	154

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55	Polyadenylation of three classes of chloroplast RNA in Chlamydomonas reinhardtii. Rna, 2000, 6, 598-607.	1.6	63
56	Processing and degradation of chloroplast mRNA. Biochimie, 2000, 82, 573-582.	1.3	136
57	Polyadenylation and Degradation of mRNA in the Chloroplast1. Plant Physiology, 1999, 120, 937-944.	2.3	80
58	Altering the 3 UTR endonucleolytic cleavage site of a Chlamydomonas chloroplast mRNA affects 3-end maturation in vitro but not in vivo. Plant Molecular Biology, 1999, 40, 679-686.	2.0	13
59	Preferential degradation of polyadenylated and polyuridinylated RNAs by the bacterial exoribonuclease polynucleotide phosphorylase. FEBS Journal, 1999, 261, 468-474.	0.2	37
60	The sequence and structure of the 3'-untranslated regions of chloroplast transcripts are important determinants of mRNA accumulation and stability. Plant Molecular Biology, 1998, 36, 307-314.	2.0	49
61	3â€²-Processed mRNA Is Preferentially Translated in <i>Chlamydomonas reinhardtii</i> Chloroplasts. Molecular and Cellular Biology, 1998, 18, 4605-4611.	1.1	45
62	The Mechanism of Preferential Degradation of Polyadenylated RNA in the Chloroplast. Journal of Biological Chemistry, 1997, 272, 17648-17653.	1.6	69
63	Blocking polyadenylation of mRNA in the chloroplast inhibits its degradation. Plant Journal, 1997, 12, 1173-1178.	2.8	35
64	CSP41, a Sequence-Specific Chloroplast mRNA Binding Protein, Is an Endoribonuclease. Plant Cell, 1996, 8, 1409.	3.1	19
65	The 3â€² untranslated regions of chloroplast genes in. Molecular Genetics and Genomics, 1996, 252, 676.	2.4	2
66	Phosphorylation of a chloroplast RNA-binding protein changes its affinity to RNA. Nucleic Acids Research, 1995, 23, 2506-2511.	6.5	69
67	RNA-binding activities of the different domains of a spinach chloroplast ribonucleoprotein. Nucleic Acids Research, 1994, 22, 4719-4724.	6.5	22
68	The apoprotein precursor of the major light-harvesting complex of photosystem II (LHCIIb) is inserted primarily into stromal lamellae and subsequently migrates to the grana. Plant Molecular Biology, 1990, 14, 753-764.	2.0	31
69	The P30 movement protein of tobacco mosaic virus is a single-strand nucleic acid binding protein. Cell, 1990, 60, 637-647.	13.5	482
70	Tyrosine phenol-lyase from Citrobacter intermedius. Factors controlling substrate specificity. FEBS Journal, 1988, 177, 395-401.	0.2	121
71	Turnover of thylakoid photosystem II proteins during photoinhibition of Chlamydomonas reinhardtii. FEBS Journal, 1988, 177, 403-410.	0.2	187
72	Structure and biogenesis of Chlamydomonas reinhardtii photosystem I. FEBS Journal, 1988, 177, 411-416.	0.2	123

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73	Evidence for protection by heat-shock proteins against photoinhibition during heat-shock. EMBO Journal, 1988, 7, 1-6.	3.5	99
74	Phosphorylation of spinach chlorophyll-protein complexes CPII*, but not CP29, CP27, or CP24, is phosphorylated in vitro. FEBS Letters, 1987, 215, 25-30.	1.3	34
75	Specific loss of LHCII phosphorylation in theLemnamutant 1073 lacking the cytochromeb6/fcomplex. FEBS Letters, 1987, 221, 205-210.	1.3	64
76	Transcription control of the 32 kDa-QBprotein of photosystem II in differentiated bundle sheath and mesophyll chloroplasts of maize. FEBS Letters, 1986, 198, 56-60.	1.3	15
77	Photosystem I reaction centers from maize bundle-sheath and mesophyll chloroplasts lack subunit III. FEBS Journal, 1986, 159, 157-161.	0.2	21
78	Adaptation to CO2 Level and Changes in the Phosphorylation of Thylakoid Proteins during the Cell Cycle of Chlamydomonas reinhardtii. Plant Physiology, 1986, 80, 604-607.	2.3	36
79	Purification and composition of photosystem I reaction center of Prochloron sp., an oxygen-evolving prokaryote containing chlorophyll b. FEBS Letters, 1985, 191, 29-33.	1.3	27
80	Nadph Performs Mediated Electron Transfer in Cyanobacterial-Driven Bio-Photoelectrochemical Cellsnadph Performs Mediated Electron Transfer in Cyanobacterial-Driven Bio-Photoelectrochemical Cells. SSRN Electronic Journal, 0, , .	0.4	0