Gadi Schuster

List of Publications by Year
in descending order

80 papers	5,274 citations	66234 42 h-index	85405 71 g-index
84 all docs	84 docs citations	84 times ranked	3969 citing authors

#	Article	IF	Citations
1	The P30 movement protein of tobacco mosaic virus is a single-strand nucleic acid binding protein. Cell, 1990, 60, 637-647.	13.5	482
2	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
3	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
4	Substrate recognition by ADAR1 and ADAR2. Rna, 2001, 7, 846-858.	1.6	193
5	Turnover of thylakoid photosystem II proteins during photoinhibition of Chlamydomonas reinhardtii. FEBS Journal, 1988, 177, 403-410.	0.2	187
6	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
7	Polyadenylation and Degradation of Human Mitochondrial RNA: the Prokaryotic Past Leaves Its Mark. Molecular and Cellular Biology, 2005, 25, 6427-6435.	1.1	152
8	Processing and degradation of chloroplast mRNA. Biochimie, 2000, 82, 573-582.	1.3	136
9	Dis3-like 1: a novel exoribonuclease associated with the human exosome. EMBO Journal, 2010, 29, 2358-2367.	3.5	134
10	Structure and biogenesis of Chlamydomonas reinhardtii photosystem I. FEBS Journal, 1988, 177, 411-416.	0.2	123
11	Tyrosine phenol-lyase from Citrobacter intermedius. Factors controlling substrate specificity. FEBS Journal, 1988, 177, 395-401.	0.2	121
12	Polyadenylation of ribosomal RNA in human cells. Nucleic Acids Research, 2006, 34, 2966-2975.	6.5	113
13	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
14	Live cyanobacteria produce photocurrent and hydrogen using both the respiratory and photosynthetic systems. Nature Communications, 2018, 9, 2168.	5.8	104
15	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
16	Evidence for protection by heat-shock proteins against photoinhibition during heat-shock. EMBO Journal, 1988, 7, 1-6.	3.5	99
17	Chapter 10 RNA Polyadenylation and Decay in Mitochondria and Chloroplasts. Progress in Molecular Biology and Translational Science, 2009, 85, 393-422.	0.9	90
18	RNA polyadenylation in Archaea: not observed in Haloferax while the exosome polynucleotidylates RNA in Sulfolobus. EMBO Reports, 2005, 6, 1188-1193.	2.0	82

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19	Polyadenylation and Degradation of mRNA in the Chloroplast1. Plant Physiology, 1999, 120, 937-944.	2.3	80
20	Cooperation of Endo- and Exoribonucleases in Chloroplast mRNA Turnover. Progress in Molecular Biology and Translational Science, 2004, 78, 305-337.	1.9	74
21	Hybrid bio-photo-electro-chemical cells for solar water splitting. Nature Communications, 2016, 7, 12552.	5.8	74
22	Stable PNPase RNAi silencing: Its effect on the processing and adenylation of human mitochondrial RNA. Rna, 2007, 14, 310-323.	1.6	72
23	Phosphorylation of a chloroplast RNA-binding protein changes its affinity to RNA. Nucleic Acids Research, 1995, 23, 2506-2511.	6.5	69
24	The Mechanism of Preferential Degradation of Polyadenylated RNA in the Chloroplast. Journal of Biological Chemistry, 1997, 272, 17648-17653.	1.6	69
25	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
26	Chloroplast RNase J compensates for inefficient transcription termination by removal of antisense RNA. Rna, 2011, 17, 2165-2176.	1.6	68
27	RNA polyadenylation and degradation in different Archaea; roles of the exosome and RNase R. Nucleic Acids Research, 2006, 34, 5923-5931.	6.5	66
28	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
29	Specific loss of LHCII phosphorylation in theLemnamutant 1073 lacking the cytochromeb6/fcomplex. FEBS Letters, 1987, 221, 205-210.	1.3	64
30	Polyadenylation of three classes of chloroplast RNA in Chlamydomonas reinhardtii. Rna, 2000, 6, 598-607.	1.6	63
31	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
32	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
33	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
34	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
35	Polynucleotide phosphorylase and the archaeal exosome as poly(A)-polymerases. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2008, 1779, 247-255.	0.9	57
36	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

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37	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
38	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
39	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
40	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
41	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
42	3â€²-Processed mRNA Is Preferentially Translated in <i>Chlamydomonas reinhardtii</i> Chloroplasts. Molecular and Cellular Biology, 1998, 18, 4605-4611.	1.1	45
43	RNA Polyadenylation in Prokaryotes and Organelles; Different Tails Tell Different Tales. Critical Reviews in Plant Sciences, 2006, 25, 65-77.	2.7	45
44	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
45	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
46	NADPH performs mediated electron transfer in cyanobacterial-driven bio-photoelectrochemical cells. IScience, 2021, 24, 101892.	1.9	42
47	Preferential degradation of polyadenylated and polyuridinylated RNAs by the bacterial exoribonuclease polynucleotide phosphorylase. FEBS Journal, 1999, 261, 468-474.	0.2	37
48	Distinct activities of several RNase J proteins in methanogenic archaea. RNA Biology, 2011, 8, 1073-1083.	1.5	37
49	Identification of LACTB2, a metallo-Î²-lactamase protein, as a human mitochondrial endoribonuclease. Nucleic Acids Research, 2016, 44, 1813-1832.	6.5	37
50	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
51	Blocking polyadenylation of mRNA in the chloroplast inhibits its degradation. Plant Journal, 1997, 12, 1173-1178.	2.8	35
52	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
53	Lysine enhances methionine content by modulating the expression of <i>S</i>â€adenosylmethionine synthase. Plant Journal, 2007, 51, 850-861.	2.8	33
54	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

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55	Bioelectricity generation from live marine photosynthetic macroalgae. Biosensors and Bioelectronics, 2022, 198, 113824.	5.3	30
56	Processing, degradation, and polyadenylation of chloroplast transcripts. Topics in Current Genetics, 2007, , 175-211.	0.7	29
57	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
58	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
59	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
60	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
61	Electron Mediation and Photocurrent Enhancement in Dunalliela salina Driven Bio-Photo Electrochemical Cells. Catalysts, 2021, 11, 1220.	1.6	23
62	RNA-binding activities of the different domains of a spinach chloroplast ribonucleoprotein. Nucleic Acids Research, 1994, 22, 4719-4724.	6.5	22
63	Photosystem I reaction centers from maize bundle-sheath and mesophyll chloroplasts lack subunit III. FEBS Journal, 1986, 159, 157-161.	0.2	21
64	Circularized RT-PCR (cRT-PCR). Methods in Enzymology, 2013, 530, 227-251.	0.4	20
65	CSP41, a Sequence-Specific Chloroplast mRNA Binding Protein, Is an Endoribonuclease. Plant Cell, 1996, 8, 1409.	3.1	19
66	Polyadenylation and degradation of RNA in the mitochondria. Biochemical Society Transactions, 2016, 44, 1475-1482.	1.6	19
67	The Arabidopsis chloroplast RNase J displays both exo- and robust endonucleolytic activities. Plant Molecular Biology, 2019, 99, 17-29.	2.0	18
68	Cryo-EM photosystem I structure reveals adaptation mechanisms to extreme high light in Chlorella ohadii. Nature Plants, 2021, 7, 1314-1322.	4.7	18
69	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
70	Exonucleases and endonucleases involved in polyadenylationâ€•assisted RNA decay. Wiley Interdisciplinary Reviews RNA, 2011, 2, 106-123.	3.2	15
71	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
72	Chapter 24 Detection and Characterization of Polyadenylated RNA in Eukarya, Bacteria, Archaea, and Organelles. Methods in Enzymology, 2008, 447, 501-520.	0.4	13

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73	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
74	Insertion of polydeoxyadenosine-rich sequences into an intergenic region increases transcription in Chlamydomonas reinhardtii chloroplasts. Planta, 2001, 212, 851-857.	1.6	11
75	Mycoplasma gallisepticum as the first analyzed bacterium in which RNA is not polyadenylated. FEMS Microbiology Letters, 2008, 283, 97-103.	0.7	11
76	Plant Ribonuclease J: An Essential Player in Maintaining Chloroplast RNA Quality Control for Gene Expression. Plants, 2020, 9, 334.	1.6	5
77	The construction of DNA molecules of figure-eight structure. Analytical Biochemistry, 2005, 344, 86-91.	1.1	3
78	Oligo(dT)-primed RT-PCR Isolation of Polyadenylated RNA Degradation Intermediates. Methods in Enzymology, 2013, 530, 209-226.	0.4	3
79	The 3â€² untranslated regions of chloroplast genes in. Molecular Genetics and Genomics, 1996, 252, 676.	2.4	2
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