FrÃ©dÃ©ric Dardel

List of Publications by Year
in descending order

66 papers	2,450 citations	136950 32 h-index	206112 48 g-index
68 all docs	68 docs citations	68 times ranked	1885 citing authors

#	Article	IF	Citations
1	Recombinant RNA technology: the tRNA scaffold. Nature Methods, 2007, 4, 571-576.	19.0	200
2	Three-dimensional Structure of the Lipoyl domain from Bacillus stearothermophilus Pyruvate Dehydrogenase Multienzyme Complex. Journal of Molecular Biology, 1993, 229, 1037-1048.	4.2	138
3	A New Subclass of the Zinc Metalloproteases Superfamily Revealed by the Solution Structure of Peptide Deformylase. Journal of Molecular Biology, 1996, 262, 375-386.	4.2	111
4	A generic protocol for the expression and purification of recombinant RNA in Escherichia coli using a tRNA scaffold. Nature Protocols, 2009, 4, 947-959.	12.0	99
5	Solution structure of nickel-peptide deformylase 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 1998, 280, 501-513.	4.2	89
6	Lysine 335, part of the KMSKS signature sequence, plays a crucial role in the amino acid activation catalysed by the methionyl-tRNA synthetase from Escherichia coli. Journal of Molecular Biology, 1991, 217, 465-475.	4.2	71
7	Solution Structure of the Ribosome-binding Domain ofE. coliTranslation Initiation Factor IF3. Homology with the U1A Protein of the Eukaryotic Spliceosome. Journal of Molecular Biology, 1995, 254, 247-259.	4.2	71
8	Heteronuclear NMR studies of the interaction of tRNA3Lys with HIV-1 nucleocapsid protein11Edited by M. F. Summers. Journal of Molecular Biology, 2001, 306, 443-454.	4.2	67
9	Enzyme structural plasticity and the emergence of broadâ€spectrum antibiotic resistance. EMBO Reports, 2008, 9, 344-349.	4.5	63
10	Discovery and Refinement of a New Structural Class of Potent Peptide Deformylase Inhibitors. Journal of Medicinal Chemistry, 2007, 50, 10-20.	6.4	60
11	Genetic engineering of methionyl-tRNA synthetase: in vitro regeneration of an active synthetase by proteolytic cleavage of a methionyl-tRNA synthetase-Î²-galactosidase chimeric protein. Biochimie, 1988, 70, 773-782.	2.6	59
12	The Annealing Mechanism of HIV-1 Reverse Transcription Primer onto the Viral Genome. Journal of Biological Chemistry, 2004, 279, 3588-3595.	3.4	59
13	NMR and biochemical characterization of recombinant human tRNA3 Lys expressed in Escherichia coli: Identification of posttranscriptional nucleotide modifications required for efficient initiation of HIV-1 reverse transcription. Rna, 2000, 6, 1403-1412.	3.5	57
14	Solution Structure of the Anticodon-binding Domain of Escherichia coli Lysyl-tRNA Synthetase and Studies of its Interaction with tRNALys. Journal of Molecular Biology, 1995, 253, 100-113.	4.2	50
15	Crystal Structure of Thermus thermophilus tRNA m1A58 Methyltransferase and Biophysical Characterization of Its Interaction with tRNA. Journal of Molecular Biology, 2008, 377, 535-550.	4.2	49
16	Co-expression of RNAâ€“protein complexes in Escherichia coli and applications to RNA biology. Nucleic Acids Research, 2013, 41, e150-e150.	14.5	47
17	Heteronuclear NMR studies of E. coli translation initiation factor IF3. evidence that the inter-domain region is disordered in solution 1 1 Edited by K. Nagai. Journal of Molecular Biology, 1997, 266, 15-22.	4.2	46
18	A unique conformation of the anticodon stem-loop is associated with the capacity of tRNAfMet to initiate protein synthesis. Nucleic Acids Research, 2008, 36, 4894-4901.	14.5	45

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19	Large scale expression and purification of recombinant RNA in Escherichia coli. Methods, 2011, 54, 267-273.	3.8	45
20	Expression in Escherichia coli of a sub-gene encoding the lipoyl domain of the pyruvate dehydrogenase complex of Bacillus stearothermophilus. FEBS Letters, 1990, 264, 206-210.	2.8	44
21	Methionyl-tRNA Synthetase Zinc Binding Domain. Journal of Molecular Biology, 1993, 231, 1078-1089.	4.2	44
22	Translational feedback regulation of the gene for L35 in Escherichia coli requires binding of ribosomal protein L20 to two sites in its leader mRNA: A possible case of ribosomal RNA???messenger RNA molecular mimicry. Rna, 2002, 8, 878-889.	3.5	43
23	The C-terminal domain of peptide deformylase is disordered and dispensable for activity. FEBS Letters, 1996, 385, 91-95.	2.8	42
24	New peptide deformylase inhibitors and cooperative interaction: a combination to improve antibacterial activity. Journal of Antimicrobial Chemotherapy, 2012, 67, 1392-1400.	3.0	42
25	Transcription and regulation of expression of the Escherichia coli methionyl-tRNA synthetase gene. Molecular Genetics and Genomics, 1990, 223, 121-133.	2.4	41
26	Structureâ€“Activity Relationship Analysis of the Peptide Deformylase Inhibitor 5â€Bromoâ€1Hâ€indoleâ€3â€acetohydroxamic Acid. ChemMedChem, 2009, 4, 261-275.	3.2	41
27	Ribosome hijacking: a role for small protein B during transâ€translation. EMBO Reports, 2009, 10, 160-165.	4.5	40
28	New insights into the formation of HIV-1 reverse transcription initiation complex. Biochimie, 2007, 89, 1204-1210.	2.6	37
29	NMR-Guided Fragment-Based Approach for the Design of tRNALys3 Ligands. Angewandte Chemie - International Edition, 2007, 46, 4489-4491.	13.8	37
30	Investigation of RNAâ€“Ligand Interactions by ¹⁹Fâ€…NMR Spectroscopy Using Fluorinated Probes. Angewandte Chemie - International Edition, 2012, 51, 9530-9534.	13.8	37
31	1H and 15N Resonance Assignments and Structure of the N-Terminal Domain of Escherichia coli Initiation Factor 3. FEBS Journal, 1995, 228, 395-402.	0.2	36
32	Heteronuclear NMR studies of the interactions of 15N-labeled methionine-specific transfer RNAs with methionyl-tRNA transformylase. Biochemistry, 1995, 34, 7668-7677.	2.5	35
33	The Crystal Structure of Mitochondrial (Type 1A) Peptide Deformylase Provides Clear Guidelines for the Design of Inhibitors Specific for the Bacterial Forms*. Journal of Biological Chemistry, 2005, 280, 42315-42324.	3.4	35
34	Double molecular mimicry in Escherichia coli: binding of ribosomal protein L20 to its two sites in mRNA is similar to its binding to 23S rRNA. Molecular Microbiology, 2005, 56, 1441-1456.	2.5	33
35	Sequence-specific 1H-NMR assignments and secondary structure of the lipoyl domain of the Bacillus stearothermophilus pyruvate dehydrogenase multienzyme complex.. FEBS Journal, 1991, 201, 203-209.	0.2	32
36	NMR structure of the Aquifex aeolicus tmRNA pseudoknot PK1: new insights into the recoding event of the ribosomal trans-translation. Nucleic Acids Research, 2006, 34, 1847-1853.	14.5	32

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37	The interdomain linker of Escherichia coli initiation factor IF3: a possible trigger of translation initiation specificity. Molecular Microbiology, 1999, 32, 193-202.	2.5	31
38	Trapping Conformational States Along Ligand-Binding Dynamics of Peptide Deformylase: The Impact of Induced Fit on Enzyme Catalysis. PLoS Biology, 2011, 9, e1001066.	5.6	30
39	Specific recognition of primerÂtRNALys3 by HIV-1 nucleocapsid protein: involvement of the zinc fingers and the N-terminal basic extension. Biochimie, 2003, 85, 557-561.	2.6	29
40	NMRâ€Guided Fragmentâ€Based Approach for the Design of AAC(6â€²)â€Ib Ligands. ChemBioChem, 2008, 9, 1368-1371.	2.6	28
41	RNA-methyltransferase TrmA is a dual-specific enzyme responsible forC⁵-methylation of uridine in both tmRNA and tRNA. RNA Biology, 2013, 10, 572-578.	3.1	27
42	NMR Structure of Bacterial Ribosomal Protein L20: Implications for Ribosome Assembly and Translational Control. Journal of Molecular Biology, 2002, 323, 143-151.	4.2	24
43	Base-type-selective high-resolution 13C edited NOESY for sequential assignment of large RNAs. Journal of Biomolecular NMR, 2001, 19, 141-151.	2.8	21
44	Design of tRNA^{Lys}₃ Ligands: Fragment Evolution and Linker Selection Guided by NMR Spectroscopy. Chemistry - A European Journal, 2009, 15, 7109-7116.	3.3	20
45	The tRNA-like Domains of E.coli and A.aeolicus Transferâ€“Messenger RNA: Structural and Functional Studies. Journal of Molecular Biology, 2003, 331, 457-471.	4.2	18
46	The N-terminal extension of Escherichia coli ribosomal protein L20 is important for ribosome assembly, but dispensable for translational feedback control. Rna, 2005, 11, 728-738.	3.5	18
47	1H and 15N Resonance Assignments and Structure of the N-Terminal Domain of Escherichia coli Initiation Factor 3. FEBS Journal, 1995, 228, 395-402.	0.2	13
48	Optimisation of a Peptide Library for Screening Specific RNA Ligands by Flow-Injection NMR. Combinatorial Chemistry and High Throughput Screening, 2002, 5, 523-529.	1.1	13
49	DNAid: a Macintosh full screen editor featuring a built-in regular expression interpreter for the search of specific patterns in biological sequences using finite state automata. Bioinformatics, 1988, 4, 483-486.	4.1	12
50	NMR-based identification of peptides that specifically recognize the d-arm of tRNA. Biochimie, 2005, 87, 885-888.	2.6	11
51	How Bacterial Ribosomal Protein L20 Assembles with 23 S Ribosomal RNA and Its Own Messenger RNA. Journal of Biological Chemistry, 2003, 278, 36522-36530.	3.4	10
52	Solution NMR structure of the SH3 domain of human nephrocystin and analysis of a mutation-causing juvenile nephronophthisis. Proteins: Structure, Function and Bioinformatics, 2005, 59, 347-355.	2.6	10
53	Computer simulation of DNA ligation: determination of initial DNA concentrations favouring the formation of recombinant molecules. Nucleic Acids Research, 1988, 16, 1767-1778.	14.5	9
54	Self-organisation of an oligodeoxynucleotide containing the G- and C-rich stretches of the direct repeats of the human mitochondrial DNA. Biochimie, 2005, 87, 725-735.	2.6	7

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55	Optimizing HSQC experiment for the observation of exchange broadened signals in RNAâ€“protein complexes. Comptes Rendus Chimie, 2008, 11, 474-479.	0.5	7
56	1H, 13C and 15N NMR assignments of the E. coli peptide deformylase in complex with a natural inhibitor called actinonin. Biomolecular NMR Assignments, 2009, 3, 153-155.	0.8	6
57	NMR identification of ligands of aminoglycoside resistance enzymes. Comptes Rendus Chimie, 2006, 9, 413-419.	0.5	4
58	Selective RNase H Cleavage of Target RNAs from a tRNA Scaffold. Methods in Molecular Biology, 2013, 941, 9-18.	0.9	4
59	In vivo tmRNA protection by SmpB and pre-ribosome binding conformation in solution. Rna, 2014, 20, 1607-1620.	3.5	4
60	Coexpression and Copurification of RNAâ€“Protein Complexes in Escherichia coli. Methods in Molecular Biology, 2021, 2323, 67-73.	0.9	2
61	Microfile. Trends in Biochemical Sciences, 1986, 11, 95-96.	7.5	1
62	Expression and purification of threonyl tRNA synthetase RNA binding domain for heteronuclear NMR studies. Comptes Rendus De L'Academie Des Sciences - Series IIc: Chemistry, 2001, 4, 725-728.	0.1	0
63	Transfer RNA modifications and DNA editing in HIV-1 reverse transcription. Topics in Current Genetics, 2005, , 401-429.	0.7	0
64	Purification of RNA Expressed In Vivo Inserted in a tRNA Scaffold. Methods in Molecular Biology, 2013, 941, 1-8.	0.9	0
65	Structure and Post-Translational Modification of the Lipoyl Domain of 2-Oxo Acid Dehydrogenase Complexes: A New Family of Protein Domains. , 1993, , 283-288.		0
66	Expression and Purification of RNAâ€“Protein Complexes in Escherichia coli. Methods in Molecular Biology, 2015, 1316, 25-31.	0.9	0