

John E Hearst

List of Publications by Year in descending order

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70
papers

5,846
citations

117453

34
h-index

98622

67
g-index

73
all docs

73
docs citations

73
times ranked

2662
citing authors

#	ARTICLE	IF	CITATIONS
1	Genes <i>acrA</i> and <i>acrB</i> encode a stress-induced efflux system of <i>Escherichia coli</i> . <i>Molecular Microbiology</i> , 1995, 16, 45-55.	1.2	598
2	Nucleotide and deduced polypeptide sequences of the photosynthetic reaction-center, B870 antenna, and flanking polypeptides from <i>R. capsulata</i> . <i>Cell</i> , 1984, 37, 949-957.	13.5	490
3	The local repressor <i>AcrR</i> plays a modulating role in the regulation of <i>acrAB</i> genes of <i>Escherichia coli</i> by global stress signals. <i>Molecular Microbiology</i> , 1996, 19, 101-112.	1.2	366
4	Sedimentation Constants of Broken Chains and Wormlike Coils. <i>Journal of Chemical Physics</i> , 1962, 37, 1425-1433.	1.2	349
5	Nucleotide sequence, organization, and nature of the protein products of the carotenoid biosynthesis gene cluster of <i>Rhodobacter capsulatus</i> . <i>Molecular Genetics and Genomics</i> , 1989, 216, 254-268.	2.4	343
6	Efflux pumps and drug resistance in Gram-negative bacteria. <i>Trends in Microbiology</i> , 1994, 2, 489-493.	3.5	292
7	A topological model for transcription based on unwinding angle analysis of <i>E. coli</i> RNA polymerase binary, initiation and ternary complexes. <i>Cell</i> , 1982, 29, 81-90.	13.5	287
8	Genetics and molecular biology of carotenoid pigment biosynthesis. <i>FASEB Journal</i> , 1996, 10, 228-237.	0.2	284
9	Genetic-physical mapping of a photosynthetic gene cluster from <i>R. capsulata</i> . <i>Cell</i> , 1984, 37, 937-947.	13.5	206
10	Sedimentation Coefficients of Linear and Cyclic Wormlike Coils with Excluded-Volume Effects. <i>Journal of Chemical Physics</i> , 1967, 46, 1493-1498.	1.2	187
11	The reaction of the psoralens with deoxyribonucleic acid. <i>Quarterly Reviews of Biophysics</i> , 1984, 17, 1-44.	2.4	157
12	Rotatory Diffusion Constants of Stiff-Chain Macromolecules. <i>Journal of Chemical Physics</i> , 1963, 38, 1062-1065.	1.2	154
13	The Kirchhoff elastic rod, the nonlinear Schrödinger equation, and DNA supercoiling. <i>Journal of Chemical Physics</i> , 1994, 101, 5186-5200.	1.2	138
14	Flexibility of native DNA from the sedimentation behavior as a function of molecular weight and temperature. <i>Journal of Molecular Biology</i> , 1968, 35, 111-129.	2.0	119
15	EFFICIENT FORMATION OF A CROSSLINKABLE HMT MONOADDUCT AT THE <i>Kpn I</i> RECOGNITION SITE. <i>Photochemistry and Photobiology</i> , 1984, 40, 29-34.	1.3	115
16	Intrinsic Viscosity of Stiff-Chain Macromolecules. <i>Journal of Chemical Physics</i> , 1964, 40, 1506-1509.	1.2	112
17	On the hydration of DNA. I. Preferential hydration and stability of DNA in concentrated trifluoroacetate solution. <i>Biopolymers</i> , 1968, 6, 1325-1344.	1.2	101
18	Molecular weights of homogeneous coliphage DNA's from density-gradient sedimentation equilibrium. <i>Journal of Molecular Biology</i> , 1969, 44, 143-160.	2.0	88

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19	On the hydration of DNA. II. Base composition dependence of the net hydration of DNA. <i>Biopolymers</i> , 1968, 6, 1345-1353.	1.2	83
20	Effect of Partial Draining on the Intrinsic Viscosity of Flexible Macromolecules. <i>Journal of Chemical Physics</i> , 1962, 37, 2547-2548.	1.2	75
21	Post-PCR sterilization: development and application to an HIV-1 diagnostic assay. <i>Nucleic Acids Research</i> , 1991, 19, 109-116.	6.5	73
22	Interaction of Escherichia coli RNA polymerase with DNA in an elongation complex arrested at a specific psoralen crosslink site. <i>Journal of Molecular Biology</i> , 1988, 199, 277-293.	2.0	72
23	The effect of angular velocity on the sedimentation behavior of deoxyribonucleic acid and tobacco mosaic virus in the ultracentrifuge. <i>Archives of Biochemistry and Biophysics</i> , 1961, 92, 206-215.	1.4	61
24	Polymer Dynamics. V. The Shear Dependent Properties of Linear Polymers Including Intrinsic Viscosity, Flow Dichroism and Birefringence, Relaxation, and Normal Stresses. <i>Journal of Chemical Physics</i> , 1971, 54, 2342-2354.	1.2	61
25	Determination of the dominant factors which influence the net hydration of native sodium deoxyribonucleate. <i>Biopolymers</i> , 1965, 3, 57-68.	1.2	60
26	Escherichia coli deoxyribonucleic acid-dependent ribonucleic acid polymerase transcriptional pause sites on SV40 DNA F1. <i>Biochemistry</i> , 1981, 20, 1907-1918.	1.2	59
27	Statistical length of DNA from light scattering. <i>Biopolymers</i> , 1971, 10, 883-893.	1.2	56
28	In vitro expression and activity of lycopene cyclase and β -carotene hydroxylase from <i>Erwinia herbicola</i> . <i>FEBS Letters</i> , 1993, 315, 329-334.	1.3	54
29	The effects of covalent additions of a psoralen on transcription by <i>E. coli</i> RNA polymerase. <i>Nucleic Acids Research</i> , 1987, 15, 6843-6854.	6.5	53
30	Protein Sequence Homologies between Portions of the L and M Subunits of Reaction Centers of <i>Rhodospseudomonas capsulata</i> and the Q _{D2} -Protein of Chloroplast Thylakoid Membranes: a Proposed Relation to Quinone-Binding Sites. <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 1984, 39, 421-424.	0.6	51
31	RNA folding during transcription by <i>Escherichia coli</i> RNA polymerase analyzed by RNA self-cleavage. <i>Biochemistry</i> , 1990, 29, 7882-7890.	1.2	49
32	Elastic model of DNA supercoiling in the infinite length limit. <i>Journal of Chemical Physics</i> , 1991, 95, 9329-9336.	1.2	47
33	CAROTENOIDS OF <i>Erwinia herbicola</i> AND AN <i>Escherichia coli</i> HB101 STRAIN CARRYING THE <i>Erwinia herbicola</i> CAROTENOID GENE CLUSTER. <i>Photochemistry and Photobiology</i> , 1991, 54, 89-93.	1.3	47
34	Studies on the interaction of T7 RNA polymerase with a DNA template containing a site-specifically placed psoralen cross-link. <i>Journal of Molecular Biology</i> , 1991, 221, 1091-1110.	2.0	43
35	Structure and Sequence of the Photosynthesis Gene Cluster. , 1995, , 1083-1106.		34
36	Effect of superhelical structure on the secondary structure of DNA rings. <i>Biopolymers</i> , 1967, 5, 691-696.	1.2	33

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37	Effect of temperature on the buoyant density of bacterial and viral DNA in CsCl solutions in the ultracentrifuge. <i>Biopolymers</i> , 1965, 3, 109-114.	1.2	31
38	Immunological detection of phytoene desaturase in algae and higher plants using an antiserum raised against a bacterial fusion-gene construct. <i>FEBS Journal</i> , 1989, 184, 375-378.	0.2	31
39	[26] Evolutionary conservation and structural similarities of carotenoid biosynthesis gene products from photosynthetic and nonphotosynthetic organisms. <i>Methods in Enzymology</i> , 1993, 214, 297-311.	0.4	30
40	Elastic rod model incorporating shear and extension, generalized nonlinear Schrödinger equations, and novel closed-form solutions for supercoiled DNA. <i>Journal of Chemical Physics</i> , 1995, 103, 3166-3183.	1.2	30
41	Reversibility of nucleotide incorporation by <i>Escherichia coli</i> RNA polymerase, and its effect on fidelity. <i>Journal of Molecular Biology</i> , 1989, 205, 291-314.	2.0	28
42	Sedimentation equilibrium of DNA samples heterogeneous in density. <i>Biopolymers</i> , 1972, 11, 1913-1918.	1.2	25
43	The ionic strength dependence of the coil dimensions of viral DNA in NH ₄ Ac Solutions. <i>Archives of Biochemistry and Biophysics</i> , 1972, 152, 723-732.	1.4	24
44	Purification of Circular DNA Using Benzoylated Naphthoylated DEAE-Cellulose. <i>DNA and Cell Biology</i> , 1985, 4, 157-164.	5.1	24
45	The chlL (frxC) gene: Phylogenetic distribution in vascular plants and DNA sequence from <i>Polystichum acrostichoides</i> (Pteridophyta) and <i>Synechococcus</i> sp. 7002 (Cyanobacteria). <i>Plant Systematics and Evolution</i> , 1993, 187, 89-102.	0.3	22
46	Statistical mechanics of the extensible and shearable elastic rod and of DNA. <i>Journal of Chemical Physics</i> , 1996, 105, 714-731.	1.2	21
47	The ionic strength dependence of σ_{20w} of Phage DNA in NH ₄ Ac. <i>Archives of Biochemistry and Biophysics</i> , 1972, 152, 712-722.	1.4	20
48	Statistical mechanical theory for the plectonemic DNA supercoil. <i>Journal of Chemical Physics</i> , 1991, 95, 9322-9328.	1.2	20
49	The ionic strength dependence of σ_{20} , w_0 for DNA in NaCl. <i>Biopolymers</i> , 1972, 11, 1985-1987.	1.2	17
50	RNA folding during transcription by T7 RNA polymerase analyzed using the self-cleaving transcript assay. <i>Biochemistry</i> , 1991, 30, 10920-10924.	1.2	17
51	Interactions of daunomycin and melanotropin with DNA. <i>Nature</i> , 1981, 292, 467-469.	13.7	16
52	Potential Function Describing the Folding of the 30 nm Fiber. <i>Journal of Physical Chemistry B</i> , 1998, 102, 6433-6439.	1.2	12
53	THE MOLECULAR and STEREOCHEMICAL STRUCTURES OF PHOTOPRODUCTS GENERATED BY UV-IRRADIATION OF 4'-HYDROXYMETHYL-4,5',8'-TRIMETHYLPsoraleN IN AQUEOUS SOLUTION. <i>Photochemistry and Photobiology</i> , 1990, 51, 273-283.	1.3	10
54	Sedimentation of wormlike coils. II. <i>Journal of Chemical Physics</i> , 1980, 73, 3007-3009.	1.2	9

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55	CHARACTERIZATION OF THE PHOTOREACTION BETWEEN DNA AND AMINOMETHYL-TRIMETHYLPSORALEN USING ABSORPTION AND FLUORESCENCE SPECTROSCOPY. <i>Photochemistry and Photobiology</i> , 1981, 33, 785-791.	1.3	9
56	Synthesis of deuterium and tritium labeled psoralens. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 1982, 19, 345-356.	0.5	9
57	Electronic Speed Control for the Beckman Model E Analytical Centrifuge. <i>Review of Scientific Instruments</i> , 1969, 40, 233-236.	0.6	7
58	A theoretical study of the effects of driven motion on rotational correlations of biological systems. <i>Biopolymers</i> , 1987, 26, 1287-1299.	1.2	6
59	LOCATION AND UNDERREPLICATION OF SATELLITE DNA IN DROSOPHILA MELANOGASTER. <i>Genetics</i> , 1977, 87, 51-65.	1.2	6
60	Three-component theory for the approach to sedimentation equilibrium in a density gradient. <i>Biopolymers</i> , 1965, 3, 1-4.	1.2	5
61	A study of DNA denaturation in the ultracentrifuge. <i>Biopolymers</i> , 1976, 15, 1591-1613.	1.2	3
62	Sedimentation studies of giant DNA molecules present in unshered whole-cell lysates of <i>D. melanogaster</i> cells. <i>Biopolymers</i> , 1977, 16, 2371-2391.	1.2	3
63	Organization of the <i>Rhodobacter Capsulatus</i> Carotenoid Biosynthesis Gene Cluster. , 1990, , 39-46.		3
64	Psoralens and Their Application to the Study of Some Molecular Biological Processes. <i>Advances in Enzymology and Related Areas of Molecular Biology</i> , 2006, 66, 85-148.	1.3	2
65	The Elastic Rod Provides a Model for DNA and Its Functions. <i>The IMA Volumes in Mathematics and Its Applications</i> , 1996, , 59-70.	0.5	2
66	Isolation and amino-terminal sequences of subunits from the photosynthetic reaction center of <i>Rhodospseudomonas capsulata</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1984, 767, 651-654.	0.5	1
67	New methods for probing nucleic acids. <i>BioEssays</i> , 1986, 5, 232-234.	1.2	0
68	Oxygen and Light Regulation of Expression of Genes for Light Harvesting (LH-I, LH-II), Reaction Center (RC-L, RC-M, RC-H), Pigment Biosynthesis and a Transcriptional Role in the Protective, Function of Carotenoids in <i>Rhodobacter Capsulatus</i> . , 1987, , 717-720.		0
69	Organization and Expression of Genes for Photosynthetic Pigmentsâ€™Protein Complexes in Photosynthetic Bacteria. , 1989, 12, 257-291.		0
70	Organization of the <i>Rhodobacter Capsulatus</i> Carotenoid Biosynthesis Gene Cluster. , 1991, , 89-100.		0