John E Hearst

List of Publications by Year in descending order

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70 papers 5,846 citations

34 h-index 98622 67 g-index

73 all docs

73 docs citations

73 times ranked

2662 citing authors

#	Article	IF	CITATIONS
1	Psoralens and Their Application to the Study of Some Molecular Biological Processes. Advances in Enzymology and Related Areas of Molecular Biology, 2006, 66, 85-148.	1.3	2
2	Potential Function Describing the Folding of the 30 nm Fiber. Journal of Physical Chemistry B, 1998, 102, 6433-6439.	1.2	12
3	Genetics and molecular biology of carotenoid pigment biosynthesis. FASEB Journal, 1996, 10, 228-237.	0.2	284
4	The local repressor AcrR plays a modulating role in the regulation of acrAB genes of Escherichia coli by global stress signals. Molecular Microbiology, 1996, 19, 101-112.	1.2	366
5	Statistical mechanics of the extensible and shearable elastic rod and of DNA. Journal of Chemical Physics, 1996, 105, 714-731.	1.2	21
6	The Elastic Rod Provides a Model for DNA and Its Functions. The IMA Volumes in Mathematics and Its Applications, 1996, , 59-70.	0.5	2
7	Genes acrA and acrB encode a stress-induced efflux system of Escherichia coli. Molecular Microbiology, 1995, 16, 45-55.	1.2	598
8	Elastic rod model incorporating shear and extension, generalized nonlinear Schrödinger equations, and novel closedâ€form solutions for supercoiled DNA. Journal of Chemical Physics, 1995, 103, 3166-3183.	1.2	30
9	Structure and Sequence of the Photosynthesis Gene Cluster. , 1995, , 1083-1106.		34
10	The Kirchhoff elastic rod, the nonlinear Schr $ ilde{A}$ qdinger equation, and DNA supercoiling. Journal of Chemical Physics, 1994, 101, 5186-5200.	1,2	138
11	Efflux pumps and drug resistance in Gram-negative bacteria. Trends in Microbiology, 1994, 2, 489-493.	3.5	292
12	ThechlL (frxC) gene: Phylogenetic distribution in vascular plants and DNA sequence fromPolystichum acrostichoides (Pteridophyta) andSynechococcus sp. 7002 (Cyanobacteria). Plant Systematics and Evolution, 1993, 187, 89-102.	0.3	22
13	In vitro expression and activity of lycopene cyclase and \hat{l}^2 -carotene hydroxylase fromErwinia herbicola. FEBS Letters, 1993, 315, 329-334.	1.3	54
14	[26] Evolutionary conservation and structural similarities of carotenoid biosynthesis gene products from photosynthetic and nonphotosynthetic organisms. Methods in Enzymology, 1993, 214, 297-311.	0.4	30
15	Elastic model of DNA supercoiling in the infiniteâ€length limit. Journal of Chemical Physics, 1991, 95, 9329-9336.	1.2	47
16	RNA folding during transcription by T7 RNA polymerase analyzed using the self-cleaving transcript assay. Biochemistry, 1991, 30, 10920-10924.	1,2	17
17	Studies on the interaction of T7 RNA polymerase with a DNA template containing a site-specifically placed psoralen cross-link. Journal of Molecular Biology, 1991, 221, 1091-1110.	2.0	43
18	Post-PCR sterilization: development and application to an HIV-1 diagnostic assay. Nucleic Acids Research, 1991, 19, 109-116.	6.5	73

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19	CAROTENOIDS OF Erwinia herbicola AND AN Escherichia coli HB101 STRAIN CARRYING THE Erwinia herbicola CAROTENOID GENE CLUSTER. Photochemistry and Photobiology, 1991, 54, 89-93.	1.3	47
20	Statistical mechanical theory for the plectonemic DNA supercoil. Journal of Chemical Physics, 1991, 95, 9322-9328.	1.2	20
21	Organization of the Rhodobacter Capsulatus Carotenoid Biosynthesis Gene Cluster., 1991,, 89-100.		O
22	THE MOLECULAR and STEREOCHEMICAL STRUCTURES OF PHOTOPRODUCTS GENERATED BY UV-IRRADIATION OF 4'-HYDROXYMETHYL-4,5',8'- TRIMETHYLPSORALEN IN AQUEOUS SOLUTION. Photochemistry and Photobiology, 1990, 51, 273-283.	1.3	10
23	RNA folding during transcription by Escherichia coli RNA polymerase analyzed by RNA self-cleavage. Biochemistry, 1990, 29, 7882-7890.	1.2	49
24	Organization of the Rhodobacter Capsulatus Carotenoid Biosynthesis Gene Cluster., 1990,, 39-46.		3
25	Immunological detection of phytoene desaturase in algae and higher plants using an antiserum raised against a bacterial fusion-gene construct. FEBS Journal, 1989, 184, 375-378.	0.2	31
26	Nucleotide sequence, organization, and nature of the protein products of the carotenoid biosynthesis gene cluster of Rhodobacter capsulatus. Molecular Genetics and Genomics, 1989, 216, 254-268.	2.4	343
27	Reversibility of nucleotide incorporation by Escherichia coli RNA polymerase, and its effect on fidelity. Journal of Molecular Biology, 1989, 205, 291-314.	2.0	28
28	Organization and Expression of Genes for Photosynthetic Pigments–Protein Complexes in Photosynthetic Bacteria., 1989, 12, 257-291.		0
29	Interaction of Escherichia coli RNA polymerase with DNA in an elongation complex arrested at a specific psoralen crosslink site. Journal of Molecular Biology, 1988, 199, 277-293.	2.0	72
30	The effects of covalent additions of a psoralen on transcription byE. coliRNA polymerase. Nucleic Acids Research, 1987, 15, 6843-6854.	6.5	53
31	A theoretical study of the effects of driven motion on rotational correlations of biological systems. Biopolymers, 1987, 26, 1287-1299.	1.2	6
32	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 Rhodobacter Capsulatus., 1987,,717-720.		0
33	New methods for probing nucleic acids. BioEssays, 1986, 5, 232-234.	1.2	O
34	Purification of Circular DNA Using Benzoylated Naphthoylated DEAE-Cellulose. DNA and Cell Biology, 1985, 4, 157-164.	5.1	24
35	Protein Sequence Homologies between Portions of the L and M Subunits of Reaction Centers of Rhodopseudomonas capsulata and the Q _{Đ²} -Protein of Chloroplast Thylakoid Membranes: a Proposed Relation to Quinone-Binding Sites. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 1984, 39, 421-424.	0.6	51
36	EFFICIENT FORMATION OF A CROSSLINKABLE HMT MONOADDUCT AT THE Kpn I RECOGNITION SITE. Photochemistry and Photobiology, 1984, 40, 29-34.	1.3	115

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37	Nucleotide and deduced polypeptide sequences of the photosynthetic reaction-center, B870 antenna, and flanking polypeptides from R. capsulata. Cell, 1984, 37, 949-957.	13.5	490
38	Genetic-physical mapping of a photosynthetic gene cluster from R. capsulata. Cell, 1984, 37, 937-947.	13.5	206
39	Isolation and amino-terminal sequences of subunits from the photosynthetic reaction center of Rhodopseudomonas capsulata. Biochimica Et Biophysica Acta - Bioenergetics, 1984, 767, 651-654.	0.5	1
40	The reaction of the psoralens with deoxyribonucleic acid. Quarterly Reviews of Biophysics, 1984, 17, 1-44.	2.4	157
41	A topological model for transcription based on unwinding angle analysis of E. coli RNA polymerase binary, initiation and ternary complexes. Cell, 1982, 29, 81-90.	13.5	287
42	Sythesis of deuterium and tritium labeled psoralens. Journal of Labelled Compounds and Radiopharmaceuticals, 1982, 19, 345-356.	0.5	9
43	Escherichia coli deoxyribonucleic acid-dependent ribonucleic acid polymerase transcriptional pause sites on SV40 DNA F1. Biochemistry, 1981, 20, 1907-1918.	1.2	59
44	CHARACTERIZATION OF THE PHOTOREACTION BETWEEN DNA AND AMINOMETHYL-TRIMETHYLPSORALEN USING ABSORPTION AND FLUORESCENCE SPECTROSCOPY. Photochemistry and Photobiology, 1981, 33, 785-791.	1.3	9
45	Interactions of daunomycin and melanotropin–daunomycin with DNA. Nature, 1981, 292, 467-469.	13.7	16
46	Sedimentation of wormlike coils. II. Journal of Chemical Physics, 1980, 73, 3007-3009.	1.2	9
47	Sedimentation studies of giant DNA molecules present in unsheared whole-cell lysates of D. melanogaster cells. Biopolymers, 1977, 16, 2371-2391.	1.2	3
48	LOCATION AND UNDERREPLICATION OF SATELLITE DNA IN DROSOPHILA MELANOGASTER. Genetics, 1977, 87, 51-65.	1.2	6
49	A study of DNA denaturation in the ultracentrifuge. Biopolymers, 1976, 15, 1591-1613.	1.2	3
50	The ionic strength dependence of so20w of Phage DNA in NH4Ac. Archives of Biochemistry and Biophysics, 1972, 152, 712-722.	1.4	20
51	The ionic strength dependence of the coil dimensions of viral DMA in NH4Ac Solutions. Archives of Biochemistry and Biophysics, 1972, 152, 723-732.	1.4	24
52	Sedimentation equilibrium of DNA samples heterogeneous in density. Biopolymers, 1972, 11, 1913-1918.	1.2	25
53	The ionic strength dependence of S20, w0 for DNA in NaCl. Biopolymers, 1972, 11, 1985-1987.	1.2	17
54	Statistical length of DNA from light scattering. Biopolymers, 1971, 10, 883-893.	1.2	56

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55	Polymer Dynamics. V. The Shear Dependent Properties of Linear Polymers Including Intrinsic Viscosity, Flow Dichroism and Birefringence, Relaxation, and Normal Stresses. Journal of Chemical Physics, 1971, 54, 2342-2354.	1.2	61
56	Electronic Speed Control for the Beckman Model E Analytical Centrifuge. Review of Scientific Instruments, 1969, 40, 233-236.	0.6	7
57	Molecular weights of homogeneous coliphage DNA's from density-gradient sedimentation equilibrium. Journal of Molecular Biology, 1969, 44, 143-160.	2.0	88
58	On the hydration of DNA. I. Preferential hydration and stability of DNA in concentrated trifluoroacetate solution. Biopolymers, 1968, 6, 1325-1344.	1.2	101
59	On the hydration of DNA. II. Base composition dependence of the net hydration of DNA. Biopolymers, 1968, 6, 1345-1353.	1.2	83
60	Flexibility of native DNA from the sedimentation behavior as a function of molecular weight and temperature. Journal of Molecular Biology, 1968, 35, 111-129.	2.0	119
61	Sedimentation Coefficients of Linear and Cyclic Wormlike Coils with Excludedâ€Volume Effects. Journal of Chemical Physics, 1967, 46, 1493-1498.	1.2	187
62	Effect of superhelical structure on the secondary structure of DNA rings. Biopolymers, 1967, 5, 691-696.	1.2	33
63	Three-component theory for the approach to sedimentation equilibrium in a density gradient. Biopolymers, 1965, 3, 1-4.	1.2	5
64	Determination of the dominant factors which influence the net hydration of native sodium deoxyribonucleate. Biopolymers, 1965, 3, 57-68.	1.2	60
65	Effect of temperature on the buoyant density of bacterial and viral DNA in CsCl solutions in the ultracentrifuge. Biopolymers, 1965, 3, 109-114.	1.2	31
66	Intrinsic Viscosity of Stiffâ€Chain Macromolecules. Journal of Chemical Physics, 1964, 40, 1506-1509.	1.2	112
67	Rotatory Diffusion Constants of Stiffâ€Chain Macromolecules. Journal of Chemical Physics, 1963, 38, 1062-1065.	1.2	154
68	Sedimentation Constants of Broken Chains and Wormlike Coils. Journal of Chemical Physics, 1962, 37, 1425-1433.	1.2	349
69	Effect of Partial Draining on the Intrinsic Viscosity of Flexible Macromolecules. Journal of Chemical Physics, 1962, 37, 2547-2548.	1.2	75
70	The effect of angular velocity on the sedimentation behavior of deoxyribonucleic acid and tobacco mosaic virus in the ultracentrifuge. Archives of Biochemistry and Biophysics, 1961, 92, 206-215.	1.4	61