

Peter Cook

List of Publications by Year in descending order

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112
papers

10,230
citations

34105

52
h-index

36028

97
g-index

121
all docs

121
docs citations

121
times ranked

7759
citing authors

#	ARTICLE	IF	CITATIONS
1	The Organization of Replication and Transcription. <i>Science</i> , 1999, 284, 1790-1795.	12.6	703
2	Kinetics of Core Histones in Living Human Cells. <i>Journal of Cell Biology</i> , 2001, 153, 1341-1354.	5.2	626
3	Visualization of replication factories attached to a nucleoskeleton. <i>Cell</i> , 1993, 73, 361-373.	28.9	461
4	The depletion attraction: an underappreciated force driving cellular organization. <i>Journal of Cell Biology</i> , 2006, 175, 681-686.	5.2	341
5	Coupled Transcription and Translation Within Nuclei of Mammalian Cells. <i>Science</i> , 2001, 293, 1139-1142.	12.6	340
6	Exon Skipping Is Correlated with Exon Circularization. <i>Journal of Molecular Biology</i> , 2015, 427, 2414-2417.	4.2	308
7	Numbers and Organization of RNA Polymerases, Nascent Transcripts, and Transcription Units in HeLa Nuclei. <i>Molecular Biology of the Cell</i> , 1998, 9, 1523-1536.	2.1	279
8	Visualization of focal sites of transcription within human nuclei. <i>EMBO Journal</i> , 1993, 12, 1059-65.	7.8	274
9	RNA is synthesized at the nuclear cage. <i>Nature</i> , 1981, 292, 552-555.	27.8	259
10	The transcription cycle of RNA polymerase II in living cells. <i>Journal of Cell Biology</i> , 2002, 159, 777-782.	5.2	234
11	Regional specialization in human nuclei: visualization of discrete sites of transcription by RNA polymerase III. <i>EMBO Journal</i> , 1999, 18, 2241-2253.	7.8	223
12	A Model for all Genomes: The Role of Transcription Factories. <i>Journal of Molecular Biology</i> , 2010, 395, 1-10.	4.2	223
13	Nonspecific bridging-induced attraction drives clustering of DNA-binding proteins and genome organization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3605-11.	7.1	219
14	The nucleoskeleton and the topology of replication. <i>Cell</i> , 1991, 66, 627-635.	28.9	218
15	Transcription Factories: Genome Organization and Gene Regulation. <i>Chemical Reviews</i> , 2013, 113, 8683-8705.	47.7	218
16	Conformational constraints in nuclear DNA. <i>Journal of Cell Science</i> , 1976, 22, 287-302.	2.0	190
17	Direct Imaging of DNA in Living Cells Reveals the Dynamics of Chromosome Formation. <i>Journal of Cell Biology</i> , 1999, 144, 813-822.	5.2	180
18	Multiscale Spatial Organization of RNA Polymerase in <i>Escherichia coli</i> . <i>Biophysical Journal</i> , 2013, 105, 172-181.	0.5	166

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19	Entropy-Driven Genome Organization. <i>Biophysical Journal</i> , 2006, 90, 3712-3721.	0.5	164
20	Simulated binding of transcription factors to active and inactive regions folds human chromosomes into loops, rosettes and topological domains. <i>Nucleic Acids Research</i> , 2016, 44, 3503-3512.	14.5	157
21	Quantitation of RNA Polymerase II and Its Transcription Factors in an HeLa Cell: Little Soluble Holoenzyme but Significant Amounts of Polymerases Attached to the Nuclear Substructure. <i>Molecular and Cellular Biology</i> , 1999, 19, 5383-5392.	2.3	147
22	Predicting three-dimensional genome structure from transcriptional activity. <i>Nature Genetics</i> , 2002, 32, 347-352.	21.4	147
23	A wave of nascent transcription on activated human genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18357-18361.	7.1	145
24	Entropic organization of interphase chromosomes. <i>Journal of Cell Biology</i> , 2009, 186, 825-834.	5.2	144
25	Similar active genes cluster in specialized transcription factories. <i>Journal of Cell Biology</i> , 2008, 181, 615-623.	5.2	131
26	TNF α signals through specialized factories where responsive coding and miRNA genes are transcribed. <i>EMBO Journal</i> , 2012, 31, 4404-4414.	7.8	122
27	Enhancers and silencers: an integrated and simple model for their function. <i>Epigenetics and Chromatin</i> , 2012, 5, 1.	3.9	119
28	Regional and temporal specialization in the nucleus: a transcriptionally-active nuclear domain rich in PTF, Oct1 and PIKA antigens associates with specific chromosomes early in the cell cycle. <i>EMBO Journal</i> , 1998, 17, 1768-1778.	7.8	113
29	The nucleoskeleton and the topology of transcription. <i>FEBS Journal</i> , 1989, 185, 487-501.	0.2	108
30	Spectrofluorometric Measurement of the Binding of Ethidium to Superhelical DNA from Cell Nuclei. <i>FEBS Journal</i> , 1978, 84, 465-477.	0.2	107
31	Nonequilibrium Chromosome Looping via Molecular Slip Links. <i>Physical Review Letters</i> , 2017, 119, 138101.	7.8	105
32	What are the molecular ties that maintain genomic loops?. <i>Trends in Genetics</i> , 2007, 23, 126-133.	6.7	97
33	Microfluidics with fluid walls. <i>Nature Communications</i> , 2017, 8, 816.	12.8	96
34	Transcription-driven genome organization: a model for chromosome structure and the regulation of gene expression tested through simulations. <i>Nucleic Acids Research</i> , 2018, 46, 9895-9906.	14.5	92
35	4-Picoline-2,2',6,6'-terpyridine-platinum(II) - A potent intercalator of DNA. <i>FEBS Letters</i> , 1996, 380, 73-78.	2.8	90
36	Active RNA Polymerases: Mobile or Immobile Molecular Machines?. <i>PLoS Biology</i> , 2010, 8, e1000419.	5.6	84

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37	Replication and transcription depend on attachment of DNA to the nuclear cage. <i>Journal of Cell Science</i> , 1984, 1984, 59-79.	2.0	80
38	Why the activity of a gene depends on its neighbors. <i>Trends in Genetics</i> , 2015, 31, 483-490.	6.7	79
39	Stable correction of a genetic deficiency in human cells by an episome carrying a 115 kb genomic transgene. <i>Nature Biotechnology</i> , 2000, 18, 1311-1314.	17.5	77
40	Correlative Fluorescence and Electron Microscopy on Ultrathin Cryosections: Bridging the Resolution Gap. <i>Journal of Histochemistry and Cytochemistry</i> , 2001, 49, 803-808.	2.5	77
41	Ephemeral Protein Binding to DNA Shapes Stable Nuclear Bodies and Chromatin Domains. <i>Biophysical Journal</i> , 2017, 112, 1085-1093.	0.5	77
42	RNA polymerase II activity is located on the surface of protein-rich transcription factories. <i>Journal of Cell Science</i> , 2008, 121, 1999-2007.	2.0	75
43	The proteomes of transcription factories containing RNA polymerases I, II or III. <i>Nature Methods</i> , 2011, 8, 963-968.	19.0	74
44	Shaping epigenetic memory via genomic bookmarking. <i>Nucleic Acids Research</i> , 2018, 46, 83-93.	14.5	73
45	Sequences Attaching Loops of Nuclear and Mitochondrial DNA to Underlying Structures in Human Cells: The Role of Transcription Units. <i>Nucleic Acids Research</i> , 1996, 24, 1212-1219.	14.5	71
46	Nongenic transcription, gene regulation and action at a distance. <i>Journal of Cell Science</i> , 2003, 116, 4483-4491.	2.0	64
47	The role of specialized transcription factories in chromosome pairing. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2008, 1783, 2155-2160.	4.1	63
48	Transcription factories. <i>Biochemical Society Transactions</i> , 2008, 36, 585-589.	3.4	62
49	The Topology of Transcription by Immobilized Polymerases. <i>Experimental Cell Research</i> , 1996, 229, 167-173.	2.6	58
50	Depletion Effects and Loop Formation in Self-Avoiding Polymers. <i>Physical Review Letters</i> , 2006, 97, 178302.	7.8	56
51	Hypothesis: RNA polymerase: Structural determinat of the chromatin loop and the chromosome. <i>BioEssays</i> , 1994, 16, 425-430.	2.5	54
52	Active RNA polymerase I is fixed within the nucleus of HeLa cells.. <i>EMBO Journal</i> , 1990, 9, 2207-2214.	7.8	53
53	Bridging the Resolution Gap: Imaging the Same Transcription Factories in Cryosections by Light and Electron Microscopy. <i>Journal of Histochemistry and Cytochemistry</i> , 1999, 47, 471-480.	2.5	53
54	A Conserved Organization of Transcription during Embryonic Stem Cell Differentiation and in Cells with High C Value. <i>Molecular Biology of the Cell</i> , 2006, 17, 2910-2920.	2.1	53

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55	Characterization of hypoxanthine-guanine phosphoribosyl transferase in man-mouse somatic cell hybrids by an improved electrophoretic method. <i>Biochemical Genetics</i> , 1971, 5, 91-99.	1.7	52
56	Molecular cross-talk between the transcription, translation, and nonsense-mediated decay machineries. <i>Journal of Cell Science</i> , 2004, 117, 899-906.	2.0	52
57	Transcription factories: structures conserved during differentiation and evolution. <i>Biochemical Society Transactions</i> , 2006, 34, 1133-1137.	3.4	51
58	The Localization of Sites Containing Nascent RNA and Splicing Factors. <i>Experimental Cell Research</i> , 1996, 229, 201-203.	2.6	48
59	Microfluidic chambers using fluid walls for cell biology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E5926-E5933.	7.1	47
60	Specialized transcription factories. <i>Biochemical Society Symposia</i> , 2006, 73, 67-75.	2.7	47
61	The case for nuclear translation. <i>Journal of Cell Science</i> , 2004, 117, 5713-5720.	2.0	46
62	Genome architecture and the role of transcription. <i>Current Opinion in Cell Biology</i> , 2010, 22, 271-276.	5.4	46
63	Different populations of RNA polymerase II in living mammalian cells. <i>Chromosome Research</i> , 2005, 13, 135-144.	2.2	45
64	TNF α signalling primes chromatin for NF- κ B binding and induces rapid and widespread nucleosome repositioning. <i>Genome Biology</i> , 2014, 15, 536.	8.8	45
65	Binding of nuclear factor κ B to noncanonical consensus sites reveals its multimodal role during the early inflammatory response. <i>Genome Research</i> , 2016, 26, 1478-1489.	5.5	43
66	Many expressed genes in bacteria and yeast are transcribed only once per cell cycle. <i>FASEB Journal</i> , 2006, 20, 1721-1723.	0.5	40
67	Transcription factories, chromatin loops, and the dysregulation of gene expression in malignancy. <i>Seminars in Cancer Biology</i> , 2013, 23, 65-71.	9.6	38
68	Extrusion without a motor: a new take on the loop extrusion model of genome organization. <i>Nucleus</i> , 2018, 9, 95-103.	2.2	38
69	Fixing the model for transcription. <i>Transcription</i> , 2011, 2, 41-44.	3.1	37
70	Dynamic Reconfiguration of Long Human Genes during One Transcription Cycle. <i>Molecular and Cellular Biology</i> , 2012, 32, 2738-2747.	2.3	37
71	The transcriptional basis of chromosome pairing. <i>Journal of Cell Science</i> , 1997, 110 (Pt 9), 1033-40.	2.0	35
72	Non-specific (entropic) forces as major determinants of the structure of mammalian chromosomes. <i>Chromosome Research</i> , 2011, 19, 53-61.	2.2	34

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73	Raising fluid walls around living cells. <i>Science Advances</i> , 2019, 5, eaav8002.	10.3	32
74	ON THE INHERITANCE OF DIFFERENTIATED TRAITS. <i>Biological Reviews</i> , 1974, 49, 51-84.	10.4	31
75	Transcription of Superhelical DNA from Cell Nuclei. <i>FEBS Journal</i> , 1977, 76, 63-78.	0.2	31
76	Splicing of many human genes involves sites embedded within introns. <i>Nucleic Acids Research</i> , 2015, 43, 4721-4732.	14.5	31
77	A chromomeric model for nuclear and chromosome structure. <i>Journal of Cell Science</i> , 1995, 108 (Pt) Tj ETQq1 1 0.784314 rgBT /Overlo	2.0	31
78	Dissecting the nascent human transcriptome by analysing the RNA content of transcription factories. <i>Nucleic Acids Research</i> , 2015, 43, e95-e95.	14.5	28
79	Space exploration by the promoter of a long human gene during one transcription cycle. <i>Nucleic Acids Research</i> , 2013, 41, 2216-2227.	14.5	26
80	Species specificity of an enzyme determined by an erythrocyte nucleus in an interspecific hybrid cell. <i>Journal of Cell Science</i> , 1970, 7, 1-4.	2.0	25
81	The Superhelical Density of Nuclear DNA from Human Cells. <i>FEBS Journal</i> , 1977, 74, 527-532.	0.2	24
82	“Dark matter” worlds of unstable RNA and protein. <i>Nucleus</i> , 2014, 5, 281-286.	2.2	24
83	A simple model for DNA bridging proteins and bacterial or human genomes: bridging-induced attraction and genome compaction. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 064119.	1.8	24
84	Most Human Proteins Made in Both Nucleus and Cytoplasm Turn Over within Minutes. <i>PLoS ONE</i> , 2014, 9, e99346.	2.5	23
85	The Size of Sites Containing SR Proteins in Human Nuclei: Problems Associated with Characterizing Small Structures by Immunogold Labeling. <i>Journal of Histochemistry and Cytochemistry</i> , 1998, 46, 985-992.	2.5	21
86	The interdependence of nuclear structure and function. <i>Current Opinion in Cell Biology</i> , 2002, 14, 780-785.	5.4	21
87	Isolation and Characterization of Monoclonal Antibodies Directed against Subunits of Human RNA Polymerases I, II, and III. <i>Experimental Cell Research</i> , 2000, 254, 163-172.	2.6	20
88	Isolation of the protein and RNA content of active sites of transcription from mammalian cells. <i>Nature Protocols</i> , 2016, 11, 553-565.	12.0	20
89	Modeling a Self-Avoiding Chromatin Loop: Relation to the Packing Problem, Action-at-a-Distance, and Nuclear Context. <i>Structure</i> , 2006, 14, 197-204.	3.3	19
90	Biocompatibility of fluids for multiphase drops-in-drops microfluidics. <i>Biomedical Microdevices</i> , 2016, 18, 114.	2.8	19

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91	Transcription by an immobilized RNA polymerase from bacteriophage T7 and the topology of transcription. <i>Nucleic Acids Research</i> , 1992, 20, 3591-3598.	14.5	18
92	Jet-Printing Microfluidic Devices on Demand. <i>Advanced Science</i> , 2020, 7, 2001854.	11.2	17
93	A mutation in the largest (catalytic) subunit of RNA polymerase II and its relation to the arrest of the cell cycle in G1 phase. <i>Gene</i> , 2001, 274, 77-81.	2.2	15
94	Complex small-world regulatory networks emerge from the 3D organisation of the human genome. <i>Nature Communications</i> , 2021, 12, 5756.	12.8	15
95	Promoter type influences transcriptional topography by targeting genes to distinct nucleoplasmic sites. <i>Journal of Cell Science</i> , 2013, 126, 2052-9.	2.0	12
96	Confocal Fluorescence Imaging of Photosensitized DNA Denaturation in Cell Nuclei. <i>Photochemistry and Photobiology</i> , 2005, 81, 960-969.	2.5	11
97	A model for reverse transcription by a dimeric enzyme. <i>Journal of General Virology</i> , 1993, 74, 691-697.	2.9	9
98	Applying microscopy to the analysis of nuclear structure and function. <i>Methods</i> , 2003, 29, 131-141.	3.8	9
99	Using Fluid Walls for Single-Cell Cloning Provides Assurance in Monoclonality. <i>SLAS Technology</i> , 2020, 25, 267-275.	1.9	9
100	Predicting flows through microfluidic circuits with fluid walls. <i>Microsystems and Nanoengineering</i> , 2021, 7, 93.	7.0	9
101	Photobleaching reveals complex effects of inhibitors on transcribing RNA polymerase II in living cells. <i>Experimental Cell Research</i> , 2007, 313, 3026-3033.	2.6	8
102	Simulating topological domains in human chromosomes with a fitting-free model. <i>Nucleus</i> , 2016, 7, 453-461.	2.2	7
103	Formation of droplet interface bilayers in a Teflon tube. <i>Scientific Reports</i> , 2016, 6, 34355.	3.3	6
104	Maximum precision closed-form solution for localizing diffraction-limited spots in noisy images. <i>Optics Express</i> , 2012, 20, 18478.	3.4	5
105	Creating wounds in cell monolayers using micro-jets. <i>Biomicrofluidics</i> , 2021, 15, 014108.	2.4	4
106	Microfluidics on Standard Petri Dishes for Bioscientists. <i>Small Methods</i> , 2021, 5, 2100724.	8.6	4
107	Super-resolution measurement of distance between transcription sites using RNA FISH with intronic probes. <i>Methods</i> , 2016, 98, 150-157.	3.8	3
108	T7 RNA Polymerase Functions In Vitro without Clustering. <i>PLoS ONE</i> , 2012, 7, e40207.	2.5	2

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109	How mobile are active RNA polymerases?. Journal of Cell Science, 1990, 96 (Pt 2), 189-92.	2.0	1
110	Reconfigurable Microfluidic Circuits for Isolating and Retrieving Cells of Interest. ACS Applied Materials & Interfaces, 2022, 14, 25209-25219.	8.0	1
111	Biocompatibility of Sessile Drops as Chambers for Cell Culture. , 2019, , .		0
112	Dynamic Chromatin Loops and the Regulation of Gene Expression. , 2007, , 177-195.		0