Peter Cook

List of Publications by Year
in descending order

112 papers	10,230 citations	34076 52 h-index	36008 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. Science, 1999, 284, 1790-1795.	6.0	703
2	Kinetics of Core Histones in Living Human Cells. Journal of Cell Biology, 2001, 153, 1341-1354.	2.3	626
3	Visualization of replication factories attached to a nucleoskeleton. Cell, 1993, 73, 361-373.	13.5	461
4	The depletion attraction: an underappreciated force driving cellular organization. Journal of Cell Biology, 2006, 175, 681-686.	2.3	341
5	Coupled Transcription and Translation Within Nuclei of Mammalian Cells. Science, 2001, 293, 1139-1142.	6.0	340
6	Exon Skipping Is Correlated with Exon Circularization. Journal of Molecular Biology, 2015, 427, 2414-2417.	2.0	308
7	Numbers and Organization of RNA Polymerases, Nascent Transcripts, and Transcription Units in HeLa Nuclei. Molecular Biology of the Cell, 1998, 9, 1523-1536.	0.9	279
8	Visualization of focal sites of transcription within human nuclei. EMBO Journal, 1993, 12, 1059-65.	3.5	274
9	RNA is synthesized at the nuclear cage. Nature, 1981, 292, 552-555.	13.7	259
10	The transcription cycle of RNA polymerase II in living cells. Journal of Cell Biology, 2002, 159, 777-782.	2.3	234
11	Regional specialization in human nuclei: visualization of discrete sites of transcription by RNA polymerase III. EMBO Journal, 1999, 18, 2241-2253.	3.5	223
12	A Model for all Genomes: The Role of Transcription Factories. Journal of Molecular Biology, 2010, 395, 1-10.	2.0	223
13	Nonspecific bridging-induced attraction drives clustering of DNA-binding proteins and genome organization. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3605-11.	3.3	219
14	The nucleoskeleton and the topology of replication. Cell, 1991, 66, 627-635.	13.5	218
15	Transcription Factories: Genome Organization and Gene Regulation. Chemical Reviews, 2013, 113, 8683-8705.	23.0	218
16	Conformational constraints in nuclear DNA. Journal of Cell Science, 1976, 22, 287-302.	1.2	190
17	Direct Imaging of DNA in Living Cells Reveals the Dynamics of Chromosome Formation. Journal of Cell Biology, 1999, 144, 813-822.	2.3	180
18	Multiscale Spatial Organization of RNA Polymerase in Escherichia coli. Biophysical Journal, 2013, 105, 172-181.	0.2	166

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19	Entropy-Driven Genome Organization. Biophysical Journal, 2006, 90, 3712-3721.	0.2	164
20	Simulated binding of transcription factors to active and inactive regions folds human chromosomes into loops, rosettes and topological domains. Nucleic Acids Research, 2016, 44, 3503-3512.	6.5	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. Molecular and Cellular Biology, 1999, 19, 5383-5392.	1.1	147
22	Predicting three-dimensional genome structure from transcriptional activity. Nature Genetics, 2002, 32, 347-352.	9.4	147
23	A wave of nascent transcription on activated human genes. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18357-18361.	3.3	145
24	Entropic organization of interphase chromosomes. Journal of Cell Biology, 2009, 186, 825-834.	2.3	144
25	Similar active genes cluster in specialized transcription factories. Journal of Cell Biology, 2008, 181, 615-623.	2.3	131
26	TNFÎ± signals through specialized factories where responsive coding and miRNA genes are transcribed. EMBO Journal, 2012, 31, 4404-4414.	3.5	122
27	Enhancers and silencers: an integrated and simple model for their function. Epigenetics and Chromatin, 2012, 5, 1.	1.8	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. EMBO Journal, 1998, 17, 1768-1778.	3.5	113
29	The nucleoskeleton and the topology of transcription. FEBS Journal, 1989, 185, 487-501.	0.2	108
30	Spectrofluorometric Measurement of the Binding of Ethidium to Superhelical DNA from Cell Nuclei. FEBS Journal, 1978, 84, 465-477.	0.2	107
31	Nonequilibrium Chromosome Looping via Molecular Slip Links. Physical Review Letters, 2017, 119, 138101.	2.9	105
32	What are the molecular ties that maintain genomic loops?. Trends in Genetics, 2007, 23, 126-133.	2.9	97
33	Microfluidics with fluid walls. Nature Communications, 2017, 8, 816.	5.8	96
34	Transcription-driven genome organization: a model for chromosome structure and the regulation of gene expression tested through simulations. Nucleic Acids Research, 2018, 46, 9895-9906.	6.5	92
35	4-Picoline-2,2â€²:6â€²,2â€³-terpyridine-platinum(II) - A potent intercalator of DNA. FEBS Letters, 1996, 380, 73-78.	1.3	90
36	Active RNA Polymerases: Mobile or Immobile Molecular Machines?. PLoS Biology, 2010, 8, e1000419.	2.6	84

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37	Replication and transcription depend on attachment of DNA to the nuclear cage. Journal of Cell Science, 1984, 1984, 59-79.	1.2	80
38	Why the activity of a gene depends on its neighbors. Trends in Genetics, 2015, 31, 483-490.	2.9	79
39	Stable correction of a genetic deficiency in human cells by an episome carrying a 115 kb genomic transgene. Nature Biotechnology, 2000, 18, 1311-1314.	9.4	77
40	Correlative Fluorescence and Electron Microscopy on Ultrathin Cryosections: Bridging the Resolution Gap. Journal of Histochemistry and Cytochemistry, 2001, 49, 803-808.	1.3	77
41	Ephemeral Protein Binding to DNA Shapes Stable Nuclear Bodies and Chromatin Domains. Biophysical Journal, 2017, 112, 1085-1093.	0.2	77
42	RNA polymerase II activity is located on the surface of protein-rich transcription factories. Journal of Cell Science, 2008, 121, 1999-2007.	1.2	75
43	The proteomes of transcription factories containing RNA polymerases I, II or III. Nature Methods, 2011, 8, 963-968.	9.0	74
44	Shaping epigenetic memory via genomic bookmarking. Nucleic Acids Research, 2018, 46, 83-93.	6.5	73
45	Sequences Attaching Loops of Nuclear and Mitochondrial DNA to Underlying Structures in Human Cells: The Role of Transcription Units. Nucleic Acids Research, 1996, 24, 1212-1219.	6.5	71
46	Nongenic transcription, gene regulation and action at a distance. Journal of Cell Science, 2003, 116, 4483-4491.	1.2	64
47	The role of specialized transcription factories in chromosome pairing. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 2155-2160.	1.9	63
48	Transcription factories. Biochemical Society Transactions, 2008, 36, 585-589.	1.6	62
49	The Topology of Transcription by Immobilized Polymerases. Experimental Cell Research, 1996, 229, 167-173.	1.2	58
50	Depletion Effects and Loop Formation in Self-Avoiding Polymers. Physical Review Letters, 2006, 97, 178302.	2.9	56
51	Hypothesis: RNA polymerase: Structural determinat of the chromatin loop and the chromosome. BioEssays, 1994, 16, 425-430.	1.2	54
52	Active RNA polymerase I is fixed within the nucleus of HeLa cells.. EMBO Journal, 1990, 9, 2207-2214.	3.5	53
53	Bridging the Resolution Gap: Imaging the Same Transcription Factories in Cryosections by Light and Electron Microscopy. Journal of Histochemistry and Cytochemistry, 1999, 47, 471-480.	1.3	53
54	A Conserved Organization of Transcription during Embryonic Stem Cell Differentiation and in Cells with High C Value. Molecular Biology of the Cell, 2006, 17, 2910-2920.	0.9	53

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55	Characterization of hypoxanthine-guanine phosphoribosyl transferase in man-mouse somatic cell hybrids by an improved electrophoretic method. Biochemical Genetics, 1971, 5, 91-99.	0.8	52
56	Molecular cross-talk between the transcription, translation, and nonsense-mediated decay machineries. Journal of Cell Science, 2004, 117, 899-906.	1.2	52
57	Transcription factories: structures conserved during differentiation and evolution. Biochemical Society Transactions, 2006, 34, 1133-1137.	1.6	51
58	The Localization of Sites Containing Nascent RNA and Splicing Factors. Experimental Cell Research, 1996, 229, 201-203.	1.2	48
59	Microfluidic chambers using fluid walls for cell biology. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5926-E5933.	3.3	47
60	Specialized transcription factories. Biochemical Society Symposia, 2006, 73, 67-75.	2.7	47
61	The case for nuclear translation. Journal of Cell Science, 2004, 117, 5713-5720.	1.2	46
62	Genome architecture and the role of transcription. Current Opinion in Cell Biology, 2010, 22, 271-276.	2.6	46
63	Different populations of RNA polymerase II in living mammalian cells. Chromosome Research, 2005, 13, 135-144.	1.0	45
64	TNFÎ± signalling primes chromatin for NF-ÎºB binding and induces rapid and widespread nucleosome repositioning. Genome Biology, 2014, 15, 536.	3.8	45
65	Binding of nuclear factor ÎºB to noncanonical consensus sites reveals its multimodal role during the early inflammatory response. Genome Research, 2016, 26, 1478-1489.	2.4	43
66	Many expressed genes in bacteria and yeast are transcribed only once per cell cycle. FASEB Journal, 2006, 20, 1721-1723.	0.2	40
67	Transcription factories, chromatin loops, and the dysregulation of gene expression in malignancy. Seminars in Cancer Biology, 2013, 23, 65-71.	4.3	38
68	Extrusion without a motor: a new take on the loop extrusion model of genome organization. Nucleus, 2018, 9, 95-103.	0.6	38
69	Fixing the model for transcription. Transcription, 2011, 2, 41-44.	1.7	37
70	Dynamic Reconfiguration of Long Human Genes during One Transcription Cycle. Molecular and Cellular Biology, 2012, 32, 2738-2747.	1.1	37
71	The transcriptional basis of chromosome pairing. Journal of Cell Science, 1997, 110 (Pt 9), 1033-40.	1.2	35
72	Non-specific (entropic) forces as major determinants of the structure of mammalian chromosomes. Chromosome Research, 2011, 19, 53-61.	1.0	34

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73	Raising fluid walls around living cells. Science Advances, 2019, 5, eaav8002.	4.7	32
74	ON THE INHERITANCE OF DIFFERENTIATED TRAITS. Biological Reviews, 1974, 49, 51-84.	4.7	31
75	Transcription of Superhelical DNA from Cell Nuclei. FEBS Journal, 1977, 76, 63-78.	0.2	31
76	Splicing of many human genes involves sites embedded within introns. Nucleic Acids Research, 2015, 43, 4721-4732.	6.5	31
77	A chromomeric model for nuclear and chromosome structure. Journal of Cell Science, 1995, 108 (Pt) Tj ETQq1 1 0.784314 rgBT /Overlo	1.2	31
78	Dissecting the nascent human transcriptome by analysing the RNA content of transcription factories. Nucleic Acids Research, 2015, 43, e95-e95.	6.5	28
79	Space exploration by the promoter of a long human gene during one transcription cycle. Nucleic Acids Research, 2013, 41, 2216-2227.	6.5	26
80	Species specificity of an enzyme determined by an erythrocyte nucleus in an interspecific hybrid cell. Journal of Cell Science, 1970, 7, 1-4.	1.2	25
81	The Superhelical Density of Nuclear DNA from Human Cells. FEBS Journal, 1977, 74, 527-532.	0.2	24
82	â€œDark matterâ€•worlds of unstable RNA and protein. Nucleus, 2014, 5, 281-286.	0.6	24
83	A simple model for DNA bridging proteins and bacterial or human genomes: bridging-induced attraction and genome compaction. Journal of Physics Condensed Matter, 2015, 27, 064119.	0.7	24
84	Most Human Proteins Made in Both Nucleus and Cytoplasm Turn Over within Minutes. PLoS ONE, 2014, 9, e99346.	1.1	23
85	The Size of Sites Containing SR Proteins in Human Nuclei: Problems Associated with Characterizing Small Structures by Immunogold Labeling. Journal of Histochemistry and Cytochemistry, 1998, 46, 985-992.	1.3	21
86	The interdependence of nuclear structure and function. Current Opinion in Cell Biology, 2002, 14, 780-785.	2.6	21
87	Isolation and Characterization of Monoclonal Antibodies Directed against Subunits of Human RNA Polymerases I, II, and III. Experimental Cell Research, 2000, 254, 163-172.	1.2	20
88	Isolation of the protein and RNA content of active sites of transcription from mammalian cells. Nature Protocols, 2016, 11, 553-565.	5.5	20
89	Modeling a Self-Avoiding Chromatin Loop: Relation to the Packing Problem, Action-at-a-Distance, and Nuclear Context. Structure, 2006, 14, 197-204.	1.6	19
90	Biocompatibility of fluids for multiphase drops-in-drops microfluidics. Biomedical Microdevices, 2016, 18, 114.	1.4	19

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91	Transcription by an immobilized RNA polymerase from bacteriophage T7 and the topolgy of transcription. Nucleic Acids Research, 1992, 20, 3591-3598.	6.5	18
92	Jetâ€Printing Microfluidic Devices on Demand. Advanced Science, 2020, 7, 2001854.	5.6	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. Gene, 2001, 274, 77-81.	1.0	15
94	Complex small-world regulatory networks emerge from the 3D organisation of the human genome. Nature Communications, 2021, 12, 5756.	5.8	15
95	Promoter type influences transcriptional topography by targeting genes to distinct nucleoplasmic sites. Journal of Cell Science, 2013, 126, 2052-9.	1.2	12
96	Confocal Fluorescence Imaging of Photosensitized DNA Denaturation in Cell Nuclei^{Â¶}. Photochemistry and Photobiology, 2005, 81, 960-969.	1.3	11
97	A model for reverse transcription by a dimeric enzyme. Journal of General Virology, 1993, 74, 691-697.	1.3	9
98	Applying microscopy to the analysis of nuclear structure and function. Methods, 2003, 29, 131-141.	1.9	9
99	Using Fluid Walls for Single-Cell Cloning Provides Assurance in Monoclonality. SLAS Technology, 2020, 25, 267-275.	1.0	9
100	Predicting flows through microfluidic circuits with fluid walls. Microsystems and Nanoengineering, 2021, 7, 93.	3.4	9
101	Photobleaching reveals complex effects of inhibitors on transcribing RNA polymerase II in living cells. Experimental Cell Research, 2007, 313, 3026-3033.	1.2	8
102	Simulating topological domains in human chromosomes with a fitting-free model. Nucleus, 2016, 7, 453-461.	0.6	7
103	Formation of droplet interface bilayers in a Teflon tube. Scientific Reports, 2016, 6, 34355.	1.6	6
104	Maximum precision closed-form solution for localizing diffraction-limited spots in noisy images. Optics Express, 2012, 20, 18478.	1.7	5
105	Creating wounds in cell monolayers using micro-jets. Biomicrofluidics, 2021, 15, 014108.	1.2	4
106	Microfluidics on Standard Petri Dishes for Bioscientists. Small Methods, 2021, 5, 2100724.	4.6	4
107	Super-resolution measurement of distance between transcription sites using RNA FISH with intronic probes. Methods, 2016, 98, 150-157.	1.9	3
108	T7 RNA Polymerase Functions In Vitro without Clustering. PLoS ONE, 2012, 7, e40207.	1.1	2

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109	How mobile are active RNA polymerases?. Journal of Cell Science, 1990, 96 (Pt 2), 189-92.	1.2	1
110	Reconfigurable Microfluidic Circuits for Isolating and Retrieving Cells of Interest. ACS Applied Materials & Interfaces, 2022, 14, 25209-25219.	4.0	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