Thomas Cremer

List of Publications by Year
in descending order

112	15,360	36203	25716
papers	citations	51 h-index	108 g-index

135	135	135	9167
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Chromosome territories, nuclear architecture and gene regulation in mammalian cells. Nature Reviews Genetics, 2001, 2, 292-301.	7.7	2,056
2	Chromosome Territories. Cold Spring Harbor Perspectives in Biology, 2010, 2, a003889-a003889.	2.3	934
3	Matrix-based comparative genomic hybridization: Biochips to screen for genomic imbalances. Genes Chromosomes and Cancer, 1997, 20, 399-407.	1.5	879
4	Dynamic genome architecture in the nuclear space: regulation of gene expression in three dimensions. Nature Reviews Genetics, 2007, 8, 104-115.	7.7	721
5	Nuclear Architecture of Rod Photoreceptor Cells Adapts to Vision in Mammalian Evolution. Cell, 2009, 137, 356-368.	13.5	683
6	Three-Dimensional Maps of All Chromosomes in Human Male Fibroblast Nuclei and Prometaphase Rosettes. PLoS Biology, 2005, 3, e157.	2.6	683
7	Detection of complete and partial chromosome gains and losses by comparative genomic in situ hybridization. Human Genetics, 1993, 90, 590-610.	1.8	544
8	Chromosome territories â€“ a functional nuclear landscape. Current Opinion in Cell Biology, 2006, 18, 307-316.	2.6	528
9	Evolutionary conservation of chromosome territory arrangements in cell nuclei from higher primates. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 4424-4429.	3.3	357
10	Non-random radial higher-order chromatin arrangements in nuclei of diploid human cells. Chromosome Research, 2001, 9, 541-567.	1.0	339
11	Quantitative analysis of comparative genomic hybridization. Cytometry, 1995, 19, 27-41.	1.8	286
12	Comparative chromosome painting discloses homologous segments in distantly related mammals. Nature Genetics, 1994, 6, 342-347.	9.4	284
13	Chromosome order in HeLa cells changes during mitosis and early G1, but is stably maintained during subsequent interphase stages. Journal of Cell Biology, 2003, 160, 685-697.	2.3	284
14	Nuclear Organization of Mammalian Genomes. Journal of Cell Biology, 1999, 146, 1211-1226.	2.3	273
15	Chromatin domains and the interchromatin compartment form structurally defined and functionally interacting nuclear networks. Chromosome Research, 2006, 14, 707-733.	1.0	240
16	Inheritance of gene densityâ€“related higher order chromatin arrangements in normal and tumor cell nuclei. Journal of Cell Biology, 2003, 162, 809-820.	2.3	235
17	Spatial Preservation of Nuclear Chromatin Architecture during Three-Dimensional Fluorescence in Situ Hybridization (3D-FISH). Experimental Cell Research, 2002, 276, 10-23.	1.2	233
18	The 4D nucleome: Evidence for a dynamic nuclear landscape based on coâ€aligned active and inactive nuclear compartments. FEBS Letters, 2015, 589, 2931-2943.	1.3	211

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19	Common themes and cell type specific variations of higher order chromatin arrangements in the mouse. BMC Cell Biology, 2005, 6, 44.	3.0	193
20	Rad51 Accumulation at Sites of DNA Damage and in Postreplicative Chromatin. Journal of Cell Biology, 2000, 150, 283-292.	2.3	192
21	Compartmentalization of Interphase Chromosomes Observed in Simulation and Experiment. Journal of Molecular Biology, 1999, 285, 1053-1065.	2.0	190
22	Arrangements of macro- and microchromosomes in chicken cells. Chromosome Research, 2001, 9, 569-584.	1.0	188
23	Molecular cytogenetic analysis of formalin-fixed, paraffin-embedded solid tumors by comparative genomic hybridization after universal DNA-amplification. Human Molecular Genetics, 1993, 2, 1907-1914.	1.4	180
24	Three-dimensional arrangements of centromeres and telomeres in nuclei of human and murine lymphocytes. Chromosome Research, 2003, 11, 485-502.	1.0	171
25	Quantitative Motion Analysis of Subchromosomal Foci in Living Cells Using Four-Dimensional Microscopy. Biophysical Journal, 1999, 77, 2871-2886.	0.2	170
26	Radial chromatin positioning is shaped by local gene density, not by gene expression. Chromosoma, 2007, 116, 285-306.	1.0	160
27	Multicolor 3D Fluorescence In Situ Hybridization for Imaging Interphase Chromosomes. Methods in Molecular Biology, 2012, 463, 205-239.	0.4	157
28	Three-dimensional super-resolution microscopy of the inactive X chromosome territory reveals a collapse of its active nuclear compartment harboring distinct Xist RNA foci. Epigenetics and Chromatin, 2014, 7, 8.	1.8	148
29	Non-random radial arrangements of interphase chromosome territories: evolutionary considerations and functional implications. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2002, 504, 37-45.	0.4	144
30	Higher order chromatin architecture in the cell nucleus: on the way from structure to function. Biology of the Cell, 2004, 96, 555-567.	0.7	143
31	The potential of 3Dâ€FISH and superâ€resolution structured illumination microscopy for studies of 3D nuclear architecture. BioEssays, 2012, 34, 412-426.	1.2	128
32	Rise, fall and resurrection of chromosome territories: a historical perspective. Part II. Fall and resurrection of chromosome territories during the 1950s to 1980s. Part III. Chromosome territories and the functional nuclear architecture: experiments and models from the 1990s to the present. European Journal of Histochemistry, 2006, 50, 223-72.	0.6	99
33	Unscheduled DNA synthesis after partial UV irradiation of the cell nucleus. Experimental Cell Research, 1979, 124, 111-119.	1.2	97
34	Cell nucleus: Chromosome dynamics in nuclei of living cells. Current Biology, 1998, 8, R321-R324.	1.8	93
35	Functional Nuclear Architecture Studied by Microscopy. International Review of Cell and Molecular Biology, 2010, 282, 1-90.	1.6	91
36	Two-color fluorescence labeling of early and mid-to-late replicating chromatin in living cells. Chromosome Research, 2001, 9, 77-80.	1.0	89

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37	Specific metaphase and interphase detection of the breakpoint region in 8q24 of burkitt lymphoma cells by triple-color fluorescence in situ hybridization. Genes Chromosomes and Cancer, 1992, 4, 69-74.	1.5	87
38	Separate and variably shaped chromosome arm domains are disclosed by chromosome arm painting in human cell nuclei. Chromosome Research, 1998, 6, 25-33.	1.0	87
39	Evolutionarily conserved, cell type and species-specific higher order chromatin arrangements in interphase nuclei of primates. Chromosoma, 2007, 116, 307-320.	1.0	84
40	Rise, fall and resurrection of chromosome territories: a historical perspective. Part I. The rise of chromosome territories. European Journal of Histochemistry, 2006, 50, 161-76.	0.6	82
41	Differences in centromere positioning of cycling and postmitotic human cell types. Chromosoma, 2004, 112, 410-23.	1.0	81
42	Revealing the high-resolution three-dimensional network of chromatin and interchromatin space: A novel electron-microscopic approach to reconstructing nuclear architecture. Chromosome Research, 2009, 17, 801-810.	1.0	81
43	4D Chromatin dynamics in cycling cells: Theodor Boveri's hypotheses revisited. Nucleus, 2010, 1, 284-297.	0.6	81
44	Recurrent gain of chromosome arm 7q in low-grade astrocytic tumors studied by comparative genomic hybridization. , 1996, 15, 199-205.		80
45	Double in situ hybridization in combination with digital image analysis: A new approach to study interphase chromosome topography. Experimental Cell Research, 1989, 181, 126-140.	1.2	79
46	Distribution of chromosome 18 and X centric heterochromatin in the interphase nucleus of cultured human cells. Experimental Cell Research, 1990, 189, 1-12.	1.2	70
47	4D Chromatin dynamics in cycling cells. Nucleus, 2010, 1, 284-297.	0.6	70
48	Rapid generation of chromosome-specific alphoid DNA probes using the polymerase chain reaction. Human Genetics, 1992, 88, 457-462.	1.8	66
49	The Interchromatin Compartment Participates in the Structural and Functional Organization of the Cell Nucleus. BioEssays, 2020, 42, e1900132.	1.2	65
50	Changes of higher order chromatin arrangements during major genome activation in bovine preimplantation embryos. Experimental Cell Research, 2009, 315, 2053-2063.	1.2	64
51	The architecture of chicken chromosome territories changes during differentiation. BMC Cell Biology, 2004, 5, 44.	3.0	60
52	Establishment and mitotic stability of an extra-chromosomal mammalian replicon. BMC Cell Biology, 2007, 8, 33.	3.0	60
53	A top-down analysis of Xa- and Xi-territories reveals differences of higher order structure at â‰¥ 20 Mb genomic length scales. Nucleus, 2011, 2, 465-477.	0.6	58
54	Double-strand break-induced transcriptional silencing is associated with loss of tri-methylation at H3K4. Chromosome Research, 2011, 19, 883-899.	1.0	57

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55	Replication-timing-correlated spatial chromatin arrangements in cancer and in primate interphase nuclei. Journal of Cell Science, 2008, 121, 1876-1886.	1.2	52
56	Exploiting nuclear duality of ciliates to analyse topological requirements for DNA replication and transcription. Journal of Cell Science, 2005, 118, 3973-3983.	1.2	50
57	Histone lysine methylation patterns in human cell types are arranged in distinct three-dimensional nuclear zones. Histochemistry and Cell Biology, 2006, 125, 3-19.	0.8	50
58	Laser UV microirradiation of interphase nuclei and post-treatment with caffeine. Human Genetics, 1976, 35, 83-89.	1.8	49
59	Localized ultraviolet laser microbeam irradiation of early Drosophila embryos: Fate maps based on location and frequency of adult defects. Developmental Biology, 1979, 68, 533-545.	0.9	49
60	Morphology and dynamics of chromosome territories in living cells. Biochimica Et Biophysica Acta: Reviews on Cancer, 2001, 1551, M29-M39.	3.3	47
61	Recruitment Kinetics of DNA Repair Proteins Mdc1 and Rad52 but Not 53BP1 Depend on Damage Complexity. PLoS ONE, 2012, 7, e41943.	1.1	47
62	Light optical precision measurements of the active and inactive Praderâ€“Willi syndrome imprinted regions in human cell nuclei. Differentiation, 2008, 76, 66-82.	1.0	45
63	Reprogramming of fibroblast nuclei in cloned bovine embryos involves major structural remodeling with both striking similarities and differences to nuclear phenotypes ofin vitrofertilized embryos. Nucleus, 2014, 5, 555-589.	0.6	43
64	Demonstration of astrocytes in cultured amniotic fluid cells of three cases with neural-tube defect. Human Genetics, 1981, 56, 365-370.	1.8	41
65	Removal of repetitive sequences from FISH probes using PCR-assisted affinity chromatography. Human Genetics, 1997, 100, 472-476.	1.8	41
66	Epigenomic differentiation in mouse preimplantation nuclei of biparental, parthenote and cloned embryos. Chromosome Research, 2007, 15, 341-60.	1.0	41
67	Transcribed DNA is preferentially located in the perichromatin region of mammalian cell nuclei. Experimental Cell Research, 2011, 317, 433-444.	1.2	41
68	Replication labeling patterns and chromosome territories typical of mammalian nuclei are conserved in the early metazoan Hydra. Chromosoma, 2003, 112, 190-200.	1.0	40
69	Immunocytochemical localization of chromatin regions UV-microirradiated in S phase or anaphase. Experimental Cell Research, 1983, 149, 257-269.	1.2	38
70	Remodeling of nuclear landscapes during human myelopoietic cell differentiation maintains co-aligned active and inactive nuclear compartments. Epigenetics and Chromatin, 2015, 8, 47.	1.8	37
71	Maintenance of imprinting and nuclear architecture in cycling cells. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 14970-14975.	3.3	35
72	Nuclear architecture: Is it important for genome function and can we prove it?. Journal of Cellular Biochemistry, 2007, 102, 1067-1075.	1.2	35

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73	Nuclear compartmentalization, dynamics, and function of regulatory DNA sequences. Genes Chromosomes and Cancer, 2019, 58, 427-436.	1.5	35
74	Cohesin depleted cells rebuild functional nuclear compartments after endomitosis. Nature Communications, 2020, 11, 6146.	5.8	35
75	Evidence against a Looped Structure of the Inactive Human X-Chromosome Territory. Experimental Cell Research, 1998, 240, 187-196.	1.2	34
76	Spatial and temporal plasticity of chromatin during programmed DNA-reorganization in Stylonychia macronuclear development. Epigenetics and Chromatin, 2008, 1, 3.	1.8	34
77	Quantitative analyses of the 3D nuclear landscape recorded with super-resolved fluorescence microscopy. Methods, 2017, 123, 33-46.	1.9	34
78	Initial high-resolution microscopic mapping of active and inactive regulatory sequences proves non-random 3D arrangements in chromatin domain clusters. Epigenetics and Chromatin, 2017, 10, 39.	1.8	34
79	The radial nuclear positioning of genes correlates with features of megabase-sized chromatin domains. Chromosome Research, 2012, 20, 735-752.	1.0	32
80	A strategy for the characterization of minute chromosome rearrangements using multiple color fluorescence in situ hybridization with chromosome-specific DNA libraries and YAC clones. Human Genetics, 1993, 92, 527-532.	1.8	31
81	Chromosomal abnormalities in renal cell neoplasms associated with acquired renal cystic disease. A series studied by comparative genomic hybridization and fluorescencein situ hybridization. , 1999, 187, 308-312.		31
82	Topology of double minutes (dmins) and homogeneously staining regions (HSRs) in nuclei of human neuroblastoma cell lines. Genes Chromosomes and Cancer, 2000, 29, 297-308.	1.5	31
83	The 4D Nucleome: Genome Compartmentalization in an Evolutionary Context. Biochemistry (Moscow), 2018, 83, 313-325.	0.7	31
84	Multicolor fluorescence in situ hybridization on metaphase chromosomes and interphase Halo-preparations using cosmid and YAC clones for the simultaneous high resolution mapping of deletions in the dystrophin gene. Human Genetics, 1994, 93, 229-235.	1.8	30
85	Positioning of the mouse Hox gene clusters in the nuclei of developing embryos and differentiating embryoid bodies. Experimental Cell Research, 2007, 313, 1449-1459.	1.2	27
86	Remodeling of the Nuclear Envelope and Lamina during Bovine Preimplantation Development and Its Functional Implications. PLoS ONE, 2015, 10, e0124619.	1.1	26
87	Chromosomal in situ suppression hybridization of immunologically classified mitotic cells in hematologic malignancies. Genes Chromosomes and Cancer, 1992, 4, 135-140.	1.5	25
88	Evolutionary origin of the cell nucleus and its functional architecture. Essays in Biochemistry, 2010, 48, 1-24.	2.1	25
89	Laser Microirradiation of Chinese Hamster Cells at Wavelength 365 nm: Effects of Psoralen and Caffeine. Radiation Research, 1981, 85, 529.	0.7	24
90	Epithelial character and morphologic diversity of cell cultures from human amniotic fluids examined by immunofluorescence microscopy and gel electrophoresis of cytoskeletal proteins. Differentiation, 1983, 24, 153-173.	1.0	24

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91	Competition effect in DNA damage response. Radiation and Environmental Biophysics, 2008, 47, 423-429.	0.6	24
92	Biochemistry meets nuclear architecture: Multicolor immuno-FISH for co-localization analysis of chromosome segments and differentially expressed gene loci with various histone methylations. Advances in Enzyme Regulation, 2007, 47, 223-241.	2.9	23
93	Remodeling of nuclear architecture by the thiodioxoxpiperazine metabolite chaetocin. Experimental Cell Research, 2010, 316, 1662-1680.	1.2	23
94	Recollections of a scientific journey published in human genetics: from chromosome territories to interphase cytogenetics and comparative genome hybridization. Human Genetics, 2014, 133, 403-416.	1.8	22
95	Micro Disc Electrophoresis and Quantitative Assay of Glucose-6-phosphate Dehydrogenase at the Cellular Level. Hoppe-Seyler's Zeitschrift FÃ¼r Physiologische Chemie, 1972, 353, 1317-1329.	1.7	21
96	Chromosome shattering: a mitotic catastrophe due to chromosome condensation failure. European Biophysics Journal, 2009, 38, 729-747.	1.2	21
97	Nuclear architecture in developmental biology and cell specialisation. Reproduction, Fertility and Development, 2011, 23, 94.	0.1	20
98	Characterization of double minute chromosomes' DNA content in a human high grade astrocytoma cell line by using comparative genomic hybridization and fluorescence in situ hybridization. Human Genetics, 1996, 98, 265-270.	1.8	18
99	Simulation of the distribution of chromosome targets in cell nuclei under topological constraints. Bioimaging, 1995, 3, 108-120.	1.8	17
100	High-resolution comparative hybridization to combed DNA fibers. Human Genetics, 1997, 99, 374-380.	1.8	17
101	Correlative Microscopy of Individual Cells: Sequential Application of Microscopic Systems with Increasing Resolution to Study the Nuclear Landscape. Methods in Molecular Biology, 2013, 1042, 299-336.	0.4	16
102	Three-dimensional distribution of centromeric or paracentromeric heterochromatin of chromosomes 1, 7, 15 and 17 in human lymphocyte nuclei studied with light microscopic axial tomography. Bioimaging, 1995, 3, 121-133.	1.8	10
103	Positional changes of a pluripotency marker gene during structural reorganization of fibroblast nuclei in cloned early bovine embryos. Nucleus, 2014, 5, 542-554.	0.6	10
104	Functional nuclear topography of transcriptionally inducible extra-chromosomal transgene clusters. Chromosome Research, 2010, 18, 401-417.	1.0	8
105	Volume ratios of painted chromosome territories 5, 7 and X in female human cell nuclei studied with confocal laser microscopy and the Cavalieri estimator. Bioimaging, 1995, 3, 1-11.	1.8	7
106	Structural analysis of interphase X-chromatin based on statistical shape theory. Biochimica Et Biophysica Acta - Molecular Cell Research, 2008, 1783, 2089-2099.	1.9	5
107	Chromosomal abnormalities in renal cell neoplasms associated with acquired renal cystic disease. A series studied by comparative genomic hybridization and fluorescence in situ hybridization. , 1999, 187, 308.		2
108	FISH on 3D Preserved Bovine and Murine Preimplantation Embryos. Methods in Molecular Biology, 2010, 659, 437-445.	0.4	1

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109	Recurrent gain of chromosome arm 7q in low-grade astrocytic tumors studied by comparative genomic hybridization. , 1996, 15, 199.		1
110	Nuclear Architecture: Topology and Function of Chromatin- and Non-Chromatin Nuclear Domains. , 2007, , 197-226.		0
111	Ziele und Grenzen der Quantifizierung genetischer Risiken. Medizinische Genetik, 2011, 23, 385-399.	0.1	0
112	Statistical Shape Theory and Registration Methods for Analyzing the 3D Architecture of Chromatin in Interphase Cell Nuclei. , 2011, , 131-147.		0