

Leonardo Barrios

List of Publications by Year in descending order

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109
papers

2,810
citations

172386

29
h-index

223716

46
g-index

110
all docs

110
docs citations

110
times ranked

2986
citing authors

#	ARTICLE	IF	CITATIONS
1	Electromechanical Nanogeneratorâ€“Cell Interaction Modulates Cell Activity. <i>Advanced Materials</i> , 2017, 29, 1605048.	11.1	116
2	Permanently hydrophilic, piezoelectric PVDF nanofibrous scaffolds promoting unaided electromechanical stimulation on osteoblasts. <i>Nanoscale</i> , 2019, 11, 8906-8917.	2.8	109
3	Cytogenetic effects of radiotherapy breakpoint distribution in induced chromosome aberrations. <i>Cancer Genetics and Cytogenetics</i> , 1989, 41, 61-70.	1.0	104
4	Simple Monitoring of Cancer Cells Using Nanoparticles. <i>Nano Letters</i> , 2012, 12, 4164-4171.	4.5	94
5	Review of translocations detected by FISH for retrospective biological dosimetry applications. <i>Radiation Protection Dosimetry</i> , 2005, 113, 396-402.	0.4	91
6	Cytogenetic analysis of lymphocytes from hospital workers occupationally exposed to low levels of ionizing radiation. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 1993, 286, 275-279.	0.4	79
7	RENEB intercomparisons applying the conventional Dicentric Chromosome Assay (DCA). <i>International Journal of Radiation Biology</i> , 2017, 93, 20-29.	1.0	77
8	Automatic scoring of dicentric chromosomes as a tool in large scale radiation accidents. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2013, 756, 174-183.	0.9	76
9	Occupational Exposure to Radiation Induces an Adaptive Response in Human Lymphocytes. <i>International Journal of Radiation Biology</i> , 1995, 67, 187-191.	1.0	73
10	Improved mechanical performance and delayed corrosion phenomena in biodegradable Mgâ€“Znâ€“Ca alloys through Pd-alloying. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2012, 6, 53-62.	1.5	72
11	Surface modification of microparticles causes differential uptake responses in normal and tumoral human breast epithelial cells. <i>Scientific Reports</i> , 2015, 5, 11371.	1.6	68
12	Cell Death Mechanisms in Tumoral and Non-Tumoral Human Cell Lines Triggered by Photodynamic Treatments: Apoptosis, Necrosis and Parthanatos. <i>Scientific Reports</i> , 2017, 7, 41340.	1.6	60
13	Detection of Circulating Cancer Cells Using Electrocatalytic Gold Nanoparticles. <i>Small</i> , 2012, 8, 3605-3612.	5.2	57
14	Translocation yields in peripheral blood lymphocytes from control populations. <i>International Journal of Radiation Biology</i> , 2005, 81, 139-145.	1.0	54
15	Realising the European Network of Biodosimetry (RENEB). <i>Radiation Protection Dosimetry</i> , 2012, 151, 621-625.	0.4	54
16	RENEB â€“ Running the European Network of biological dosimetry and physical retrospective dosimetry. <i>International Journal of Radiation Biology</i> , 2017, 93, 2-14.	1.0	52
17	Chromosome abnormalities in peripheral blood lymphocytes from untreated Hodgkin's patients. <i>Human Genetics</i> , 1988, 78, 320-324.	1.8	49
18	Integration of new biological and physical retrospective dosimetry methods into EU emergency response plans â€“ joint RENEB and EURADOS inter-laboratory comparisons. <i>International Journal of Radiation Biology</i> , 2017, 93, 99-109.	1.0	48

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19	A cytogenetic follow-up of some highly irradiated victims of the Chernobyl accident. <i>Radiation Protection Dosimetry</i> , 2005, 113, 152-161.	0.4	44
20	Relationship between the DNA content of human chromosomes and their involvement in radiation-induced structural aberrations, analysed by painting. <i>International Journal of Radiation Biology</i> , 1998, 74, 449-455.	1.0	43
21	Intracellular Polysilicon Barcodes for Cell Tracking. <i>Small</i> , 2009, 5, 2433-2439.	5.2	43
22	Biological dosimetry in simulated in vitro partial irradiations. <i>International Journal of Radiation Biology</i> , 1997, 71, 435-440.	1.0	41
23	Realising the European network of biodosimetry: RENEB--status quo. <i>Radiation Protection Dosimetry</i> , 2015, 164, 42-45.	0.4	41
24	Novel Fe-Mn-Si-Pd alloys: insights into mechanical, magnetic, corrosion resistance and biocompatibility performances. <i>Journal of Materials Chemistry B</i> , 2016, 4, 6402-6412.	2.9	37
25	Mechanical properties, corrosion performance and cell viability studies on newly developed porous Fe-Mn-Si-Pd alloys. <i>Journal of Alloys and Compounds</i> , 2017, 724, 1046-1056.	2.8	37
26	A New Porphyrin for the Preparation of Functionalized Water-Soluble Gold Nanoparticles with Low Intrinsic Toxicity. <i>ChemistryOpen</i> , 2015, 4, 127-136.	0.9	36
27	Differences in DNA Repair Capacity, Cell Death and Transcriptional Response after Irradiation between a Radiosensitive and a Radioresistant Cell Line. <i>Scientific Reports</i> , 2016, 6, 27043.	1.6	36
28	Establishment and validation of a dose-effect curve for \hat{I}^3 -rays by cytogenetic analysis. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 1995, 326, 65-69.	0.4	32
29	Amphiphilic gemini pyridinium-mediated incorporation of Zn(II)meso-tetrakis(4-carboxyphenyl)porphyrin into water-soluble gold nanoparticles for photodynamic therapy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 158, 602-609.	2.5	32
30	Novel Ti-Zr-Hf-Fe Nanostructured Alloy for Biomedical Applications. <i>Materials</i> , 2013, 6, 4930-4945.	1.3	30
31	Suitability of FISH Painting Techniques for the Detection of Partial-Body Irradiations for Biological Dosimetry. <i>Radiation Research</i> , 2002, 157, 461-468.	0.7	28
32	Cytogenetic Analyses by Fluorescence In Situ Hybridization (FISH) in Hospital Workers Occupationally Exposed to Low Levels of Ionizing Radiation. <i>Radiation Research</i> , 2001, 155, 417-423.	0.7	27
33	A novel embryo identification system by direct tagging of mouse embryos using silicon-based barcodes. <i>Human Reproduction</i> , 2011, 26, 96-105.	0.4	26
34	The RENEB operational basis: complement of established biodosimetric assays. <i>International Journal of Radiation Biology</i> , 2017, 93, 15-19.	1.0	26
35	RBE of X Rays of Different Energies: A Cytogenetic Evaluation by FISH. <i>Radiation Research</i> , 2008, 170, 93-100.	0.7	25
36	Web-based scoring of the dicentric assay, a collaborative biodosimetric scoring strategy for population triage in large scale radiation accidents. <i>Radiation and Environmental Biophysics</i> , 2014, 53, 241-254.	0.6	25

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37	A New Model of Biodosimetry to Integrate Low and High Doses. <i>PLoS ONE</i> , 2014, 9, e114137.	1.1	25
38	Decreased sensitivity to the cytogenetic effects of bleomycin in individuals occupationally exposed to ionizing radiation. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 1996, 354, 81-86.	0.4	24
39	Comparison of X-ray dose-response curves obtained by chromosome painting using conventional and PAINT nomenclatures. <i>International Journal of Radiation Biology</i> , 1999, 75, 1557-1566.	1.0	24
40	Cells bearing chromosome aberrations lacking one telomere are selectively blocked at the G2/M checkpoint. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2009, 670, 53-58.	0.4	24
41	Suitability of scoring PCC rings and fragments for dose assessment after high-dose exposures to ionizing radiation. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2013, 757, 1-7.	0.9	24
42	On the biodegradability, mechanical behavior, and cytocompatibility of amorphous Mg ₇₂ Zn ₂₃ Ca ₅ and crystalline Mg ₇₀ Zn ₂₃ Ca ₅ Pd ₂ alloys as temporary implant materials. <i>Journal of Biomedical Materials Research - Part A</i> , 2013, 101A, 502-517.	2.1	24
43	Biological Dosimetry in a Group of Radiologists by the Analysis of Dicentrics and Translocations. <i>Radiation Research</i> , 2005, 164, 612-617.	0.7	22
44	Internalization and cytotoxicity analysis of silicon-based microparticles in macrophages and embryos. <i>Biomedical Microdevices</i> , 2010, 12, 371-379.	1.4	22
45	Barcode tagging of human oocytes and embryos to prevent mix-ups in assisted reproduction technologies. <i>Human Reproduction</i> , 2014, 29, 18-28.	0.4	22
46	Validation of Semi-automatic Scoring of Dicentric Chromosomes after Simulation of Three Different Irradiation Scenarios. <i>Health Physics</i> , 2014, 106, 764-771.	0.3	22
47	Investigation of the influence of calibration practices on cytogenetic laboratory performance for dose estimation. <i>International Journal of Radiation Biology</i> , 2017, 93, 118-126.	1.0	22
48	RENEB biodosimetry intercomparison analyzing translocations by FISH. <i>International Journal of Radiation Biology</i> , 2017, 93, 30-35.	1.0	22
49	Induction of complete and incomplete chromosome aberrations by bleomycin in human lymphocytes. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2008, 637, 134-141.	0.4	20
50	Uncertainty of fast biological radiation dose assessment for emergency response scenarios. <i>International Journal of Radiation Biology</i> , 2017, 93, 127-135.	1.0	20
51	Analysis of Translocations in Stable Cells and their Implications in Retrospective Biological Dosimetry. <i>Radiation Research</i> , 2004, 162, 31-38.	0.7	19
52	Direct embryo tagging and identification system by attachment of biofunctionalized polysilicon barcodes to the zona pellucida of mouse embryos. <i>Human Reproduction</i> , 2013, 28, 1519-1527.	0.4	19
53	In vitro biocompatibility assessment of Ti ₄₀ Cu ₃₈ Zr ₁₀ Pd ₁₂ bulk metallic glass. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 163-172.	1.7	19
54	Effect of Surface Modifications of Ti ₄₀ Zr ₁₀ Cu ₃₈ Pd ₁₂ Bulk Metallic Glass and Ti-6Al-4V Alloy on Human Osteoblasts In Vitro Biocompatibility. <i>PLoS ONE</i> , 2016, 11, e0156644.	1.1	19

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55	Analysis of α -particle induced chromosome aberrations in human lymphocytes, using pan-centromeric and pan-telomeric probes. <i>International Journal of Radiation Biology</i> , 2004, 80, 737-744.	1.0	18
56	Assessment by cytogenetic analysis of the radioprotection properties of propolis extract. <i>Radiation Protection Dosimetry</i> , 2005, 115, 461-464.	0.4	18
57	Persistence of Radiation-Induced Chromosome Aberrations in a Long-Term Cell Culture. <i>Radiation Research</i> , 2009, 171, 425-437.	0.7	18
58	Chromosomal instability in breast cancer patients. <i>Human Genetics</i> , 1991, 88, 39-41.	1.8	17
59	Pharmacological Screening of Panamanian Medicinal Plants. Part 1. <i>International Journal of Crude Drug Research</i> , 1985, 23, 17-25.	0.3	16
60	Cytogenetic sensitivity of three Fanconi anemia heterozygotes to bleomycin and ionizing radiation. <i>Cancer Genetics and Cytogenetics</i> , 2001, 124, 80-83.	1.0	16
61	Optimized immobilization of lectins using self-assembled monolayers on polysilicon encoded materials for cell tagging. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014, 116, 104-113.	2.5	16
62	Web based scoring is useful for validation and harmonisation of scoring criteria within RENEB. <i>International Journal of Radiation Biology</i> , 2017, 93, 110-117.	1.0	16
63	Chromosome instability in bladder carcinoma patients. <i>Cancer Genetics and Cytogenetics</i> , 1990, 49, 107-111.	1.0	15
64	Cytogenetic damage induced by radiotherapy. Evaluation of protection by amifostine and analysis of chromosome aberrations persistence. <i>International Journal of Radiation Biology</i> , 2008, 84, 243-251.	1.0	15
65	The use of caffeine to assess high dose exposures to ionising radiation by dicentric analysis. <i>Radiation Protection Dosimetry</i> , 2012, 149, 392-398.	0.4	15
66	Comparison of methods to quantify histone H2AX phosphorylation and its usefulness for prediction of radiosensitivity. <i>International Journal of Radiation Biology</i> , 2015, 91, 915-924.	1.0	15
67	Radiation effects analysis in a group of interventional radiologists using biological and physical dosimetry methods. <i>European Journal of Radiology</i> , 2010, 75, 259-264.	1.2	14
68	Mitotic delay in lymphocytes from BRCA1 heterozygotes unable to reduce the radiation-induced chromosomal damage. <i>DNA Repair</i> , 2008, 7, 1907-1911.	1.3	13
69	Electrical stimulation of cells through photovoltaic microcell arrays. <i>Nano Energy</i> , 2018, 51, 571-578.	8.2	13
70	Analysis of β -rays induced chromosome aberrations: A fingerprint evaluation with a combination of pan-centromeric and pan-telomeric probes. <i>International Journal of Radiation Biology</i> , 2006, 82, 869-875.	1.0	12
71	The harmonization process to set up and maintain an operational biological and physical retrospective dosimetry network: QA QM applied to the RENEB network. <i>International Journal of Radiation Biology</i> , 2017, 93, 81-86.	1.0	12
72	Cytogenetic effects of radiotherapy: Frequency and types of chromosome aberrations. <i>International Journal of Radiation Oncology Biology Physics</i> , 1990, 19, 371-375.	0.4	11

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73	The Zona Pellucida Porosity: Three-Dimensional Reconstruction of Four Types of Mouse Oocyte Zona Pellucida Using a Dual Beam Microscope. <i>Microscopy and Microanalysis</i> , 2012, 18, 1442-1449.	0.2	11
74	A New Model for Biological Dose Assessment in Cases of Heterogeneous Exposures to Ionizing Radiation. <i>Radiation Research</i> , 2016, 185, 151.	0.7	11
75	Study of Galfenol direct cytotoxicity and remote microactuation in cells. <i>Biomaterials</i> , 2017, 139, 67-74.	5.7	11
76	Expression of folate-sensitive fragile sites in lymphocyte chromosomes. <i>Human Genetics</i> , 1989, 81, 243-6.	1.8	10
77	RENEB accident simulation exercise. <i>International Journal of Radiation Biology</i> , 2017, 93, 75-80.	1.0	10
78	Multibiodose Radiation Emergency Triage Categorization Software. <i>Health Physics</i> , 2014, 107, 83-89.	0.3	9
79	Polysilicon-chromium-gold intracellular chips for multi-functional biomedical applications. <i>Nanoscale</i> , 2016, 8, 8773-8783.	2.8	9
80	Cytocompatibility assessment of Tiâ€Zrâ€Pdâ€Siâ€(Nb) alloys with low Young's modulus, increased hardness, and enhanced osteoblast differentiation for biomedical applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 834-842.	1.6	9
81	Telomere association of chromosomes induced by aphidicolin in a normal individual. <i>Human Genetics</i> , 1990, 84, 424-6.	1.8	8
82	Enhancing microparticle internalization by nonphagocytic cells through the use of noncovalently conjugated polyethyleneimine. <i>International Journal of Nanomedicine</i> , 2012, 7, 5671.	3.3	8
83	Nanostructured Tiâ€Zrâ€Pdâ€Siâ€(Nb) bulk metallic composites: Novel biocompatible materials with superior mechanical strength and elastic recovery. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2015, 103, 1569-1579.	1.6	8
84	Analysis of Î±-particle-induced chromosomal aberrations by chemically-induced PCC. Elaboration of dose-effect curves. <i>International Journal of Radiation Biology</i> , 2016, 92, 493-501.	1.0	8
85	Concurrence of the triple-X syndrome and expression of the fragile site Xq27.3. <i>Human Genetics</i> , 1988, 78, 293-293.	1.8	7
86	Induction of Incomplete and Complex Chromosome Aberrations by 30ÂkVp X Rays. <i>Radiation Research</i> , 2011, 175, 201-207.	0.7	7
87	Chemical Functionalization of Polysilicon Microparticles for Single-Cell Studies. <i>Langmuir</i> , 2011, 27, 8302-8308.	1.6	7
88	Technological development of intracellular polysiliconâ€chromiumâ€gold chips for orthogonal chemical functionalization. <i>Sensors and Actuators B: Chemical</i> , 2015, 209, 212-224.	4.0	7
89	Traceability of human sperm samples by direct tagging with polysilicon microbarcodes. <i>Reproductive BioMedicine Online</i> , 2015, 31, 162-170.	1.1	6
90	Induction of premature centromere division affecting all chromosomes under culture conditions of fragile site expression. <i>Cancer Genetics and Cytogenetics</i> , 1992, 58, 152-154.	1.0	5

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91	Human origin of micronuclei in human × hamster two-cell embryos. <i>Cytogenetic and Genome Research</i> , 1995, 70, 41-44.	0.6	5
92	Membrane reorganization after photochemical internalization to release transferrin-biofunctionalized polystyrene microparticles. <i>Scientific Reports</i> , 2018, 8, 17617.	1.6	5
93	The influence of recombinant human granulocyte colony-stimulating factor on granulopoiesis in mice recovering from cyclophosphamide treatment. <i>Methods and Findings in Experimental and Clinical Pharmacology</i> , 2000, 22, 275.	0.8	5
94	Sequential and Combined G-Banding for Identifying Breakpoints in Sister Chromatid Exchanges. <i>Biotechnic and Histochemistry</i> , 1992, 67, 106-109.	0.7	4
95	Effect of DMSO on radiation-induced chromosome aberrations analysed by FISH. <i>Cytogenetic and Genome Research</i> , 2004, 104, 168-172.	0.6	4
96	Identification of bovine embryos cultured in groups by attachment of barcodes to the zona pellucida. <i>Reproduction, Fertility and Development</i> , 2014, 26, 645.	0.1	4
97	Chromosomal aberration dynamics through the cell cycle. <i>DNA Repair</i> , 2020, 89, 102838.	1.3	4
98	Constitutional del(3)(p14â€“p21) in a patient with bladder carcinoma. <i>Cancer Genetics and Cytogenetics</i> , 1986, 21, 171-173.	1.0	3
99	Can sister chromatid intercrossings be considered as prelesions?. <i>Human Genetics</i> , 1988, 79, 179-180.	1.8	3
100	Radiation effects in interventional radiology using biological and physical dosimetry methods: A case-control study. , 2008, 2008, 2809-12.		3
101	Biomolecule screening for efficient attachment of biofunctionalized microparticles to the zona pellucida of mammalian oocytes and embryos. <i>Biomedical Microdevices</i> , 2013, 15, 801-809.	1.4	3
102	A method to extract DNA for molecular studies from cells fixed in carnoy. <i>Cancer Genetics and Cytogenetics</i> , 1992, 59, 217-218.	1.0	2
103	Focus ion beam micromachined glass pipettes for cell microinjection. <i>Biomedical Microdevices</i> , 2010, 12, 311-316.	1.4	2
104	Biodegradable FeMnSi Sputter-Coated Macroporous Polypropylene Membranes for the Sustained Release of Drugs. <i>Nanomaterials</i> , 2017, 7, 155.	1.9	2
105	Cell Internalization in Fluidic Culture Conditions Is Improved When Microparticles Are Specifically Targeted to the Human Epidermal Growth Factor Receptor 2 (HER2). <i>Pharmaceutics</i> , 2019, 11, 177.	2.0	2
106	142 ZONA PELLUCIDA TAGGING WITH BARCODES ALLOWS THE TRACEABILITY OF BOVINE EMBRYOS CULTURED IN GROUP. <i>Reproduction, Fertility and Development</i> , 2013, 25, 218.	0.1	2
107	Biological and physical methods for risk estimation in interventional radiology: A detrimental effect approach. , 2011, 2011, 108-11.		1
108	Assessment of Metallic Alloys Biocompatibility. , 2018, , 461-475.		0

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109	Interspecific micronucleus model for the study of induced chromosome aberrations in human male germ cells. , 1997, , 122-131.		0