GÃ©rard Baldacchino

List of Publications by Year
in descending order

60	1,731	304602 22	276775 41
papers	citations	h-index	g-index

63	63	63	1484
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Deprotonation Dynamics of Guanine Radical Cations^{â€}. Photochemistry and Photobiology, 2022, 98, 523-531.	1.3	6
2	The Structural Duality of Nucleobases in Guanine Quadruplexes Controls Their Low-Energy Photoionization. Journal of Physical Chemistry Letters, 2021, 12, 8309-8313.	2.1	7
3	New insight on the simultaneous H₂and HNO₂production in concentrated HNO₃aqueous solutions under alpha radiation. RSC Advances, 2021, 11, 12141-12152.	1.7	4
4	Electron Holes in G-Quadruplexes: The Role of Adenine Ending Groups. International Journal of Molecular Sciences, 2021, 22, 13436.	1.8	2
5	Guanine Radicals Induced in DNA by Low-Energy Photoionization. Accounts of Chemical Research, 2020, 53, 1511-1519.	7.6	33
6	Guanine Radicals Generated in Telomeric G-Quadruplexes by Direct Absorption of Low-Energy UV Photons: Effect of Potassium Ions. Molecules, 2020, 25, 2094.	1.7	9
7	Potassium Ions Enhance Guanine Radical Generation upon Absorption of Low-Energy Photons by G-Quadruplexes and Modify Their Reactivity. Journal of Physical Chemistry Letters, 2020, 11, 1305-1309.	2.1	18
8	Populations and Dynamics of Guanine Radicals in DNA strandsâ€"Direct versus Indirect Generation. Molecules, 2019, 24, 2347.	1.7	23
9	Radicals Generated in Tetramolecular Guanine Quadruplexes by Photoionization: Spectral and Dynamical Features. Journal of Physical Chemistry B, 2019, 123, 4950-4957.	1.2	21
10	Importance of radiolytic reactions during high-LET irradiation modalities: LET effect, role of O2 and radiosensitization by nanoparticles. Cancer Nanotechnology, 2019, 10, .	1.9	28
11	Validation and investigation of reactive species yields of Geant4â€•DNA chemistry models. Medical Physics, 2019, 46, 983-998.	1.6	25
12	Effect of ion irradiation of the metal matrix on the oxidation rate of Zircaloy-4. Corrosion Science, 2018, 136, 28-37.	3.0	13
13	Understanding of Corrosion Mechanisms after Irradiation: Effect of Ion Irradiation of the Oxide Layers on the Corrosion Rate of M5. , 2018, , 415-447.		3
14	The contribution of swift ions in the epic of radiation chemistry. Histoire De La Recherche Contemporaine, 2017, , 47-54.	0.1	1
15	Water radiolysis with heavy-ion beams at GANIL. Back to 20 years of investigations. Journal of Physics: Conference Series, 2015, 629, 012009.	0.3	1
16	Influence of light ion irradiation of the oxide layer on the oxidation rate of Zircaloy-4. Corrosion Science, 2015, 98, 327-338.	3.0	26
17	Revisited water radiolysis at elevated pH by accounting O3Ë™â˜ kinetics at low and high LET. RSC Advances, 2015, 5, 89244-89253.	1.7	4
18	A New Mechanism for Hydroxyl Radical Production in Irradiated Nanoparticle Solutions. Small, 2014, 10, 3338-3346.	5.2	120

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19	First observation of HOË™ reactivity in water under high energy ions at elevated temperature. Physical Chemistry Chemical Physics, 2014, 16, 23975-23984.	1.3	4
20	Implementation of laser induced fluorescence in a pulse radiolysis experiment â€“ a new way to analyze resazurin-like reduction mechanisms. Analyst, The, 2014, 139, 1707.	1.7	7
21	Diffusion-controlled reactions modeling in Geant4-DNA. Journal of Computational Physics, 2014, 274, 841-882.	1.9	121
22	Design of a high pressure system for pulse radiolysis studies up to 400MPa with flow regulation. Nuclear Instruments & Methods in Physics Research B, 2013, 299, 1-7.	0.6	0
23	Mechanism of radiation-induced reactions in aqueous solution of coumarin-3-carboxylic acid: Effects of concentration, gas and additive on fluorescent product yield. Free Radical Research, 2012, 46, 861-871.	1.5	27
24	In situUV-visible spectrum acquisition of Br3â^'. Investigations of concentrated HBr aqueous solutions under 13-keV X-rays. Journal of Physics: Conference Series, 2011, 261, 012013.	0.3	3
25	Production of a fluorescence probe in ion-beam radiolysis of aqueous coumarin-3-carboxylic acid solutionâ€"2: Effects of nuclear fragmentation and its simulation with PHITS. Radiation Physics and Chemistry, 2011, 80, 1352-1357.	1.4	17
26	Production of a fluorescence probe in ion-beam radiolysis of aqueous coumarin-3-carboxylic acid solutionâ€"1: Beam quality and concentration dependences. Radiation Physics and Chemistry, 2011, 80, 535-539.	1.4	37
27	Modeling Radiation Chemistry in the Geant4 Toolkit. Progress in Nuclear Science and Technology, 2011, 2, 503-508.	0.3	91
28	Radiolysis of the polyethylene/water system: Studies on the role of hydroxyl radical. Radiation Physics and Chemistry, 2010, 79, 36-40.	1.4	12
29	Comparison of <scp>GEANT4</scp> very low energy cross section models with experimental data in water. Medical Physics, 2010, 37, 4692-4708.	1.6	392
30	Chemical Processes in Heavy Ion Tracks. , 2010, , 231-253.		11
31	Radiation Chemistry of Liquid Water with Heavy Ions. , 2010, , 325-354.		6
32	Transient absorption measurement system using pulsed energetic ion. Radiation Physics and Chemistry, 2009, 78, 1169-1174.	1.4	8
33	Determination of the time-dependent OH-yield by using a fluorescent probe. Application to heavy ion irradiation. Chemical Physics Letters, 2009, 468, 275-279.	1.2	41
34	Pulse radiolysis in water with heavy-ion beams. A short review. Radiation Physics and Chemistry, 2008, 77, 1218-1223.	1.4	23
35	Hydrated electron decay measurements with picosecond pulse radiolysis at elevated temperatures up to 350Â°C. Chemical Physics Letters, 2006, 424, 77-81.	1.2	21
36	Hydroxyl radical yields in the tracks of high energy 13C6+ and 36Ar18+ ions in liquid water. Nuclear Instruments & Methods in Physics Research B, 2006, 245, 288-291.	0.6	24

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37	Characteristics study on suspended fine particles in aqueous phenol solution formed by electron beam irradiations. Radiation Physics and Chemistry, 2006, 75, 564-571.	1.4	6
38	Radiolysis of Confined Water: Production and Reactivity of Hydroxyl Radicals. Angewandte Chemie - International Edition, 2005, 44, 110-112.	7.2	54
39	Effect of pressure on pulse radiolysis reduction of proteins. Biochimica Et Biophysica Acta - General Subjects, 2005, 1724, 432-439.	1.1	6
40	A nanosecond pulse radiolysis study of the hydrated electron with high energy ions with a narrow velocity distribution. Chemical Physics Letters, 2004, 385, 66-71.	1.2	22
41	Radical Mechanisms in the Radiosterilization of Metoprolol Tartrate Solutions. Pharmaceutical Research, 2003, 20, 1977-1983.	1.7	11
42	A nanosecond pulse radiolysis study of the hydrated electron with high energy carbon ions. Nuclear Instruments & Methods in Physics Research B, 2003, 209, 219-223.	0.6	20
43	Self radiolysis of tritiated water. Fusion Engineering and Design, 2003, 69, 57-60.	1.0	12
44	Hydrogen peroxide yields in water radiolysis by high-energy ion beams at constant LET. Radiation Physics and Chemistry, 2002, 65, 53-61.	1.4	57
45	DÃ©tection des radicaux OH et O^{â€“}₂ issus de la radiolyse de l'eau par chimiluminescence rÃ©solue en temps. Canadian Journal of Physiology and Pharmacology, 2001, 79, 171-175.	0.7	1
46	A New Method for the Measurement of Low Concentrations of OH/O2-Radical Species in Water by High-LET Pulse Radiolysis. A Time-Resolved Chemiluminescence Study. Journal of Physical Chemistry A, 2000, 104, 8709-8714.	1.1	24
47	DÃ©termination de constantes de vitesse de rÃ©actions de recombinaison de radicaux. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 30-34.	0.2	1
48	The radiolysis project of CEA. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 35-43.	0.2	27
49	Le rÃ1e du calcium dans la radiolyse du bÃ©ton. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 44-49.	0.2	1
50	Effets de TEL dans la radiolyse de l'eau. ExpÃ©riences de radiolyse pulsÃ©e avec les ions lourds. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1999, 96, 50-60.	0.2	9
51	Direct time-resolved measurement of radical species formed in water by heavy ions irradiation. Nuclear Instruments & Methods in Physics Research B, 1998, 146, 528-532.	0.6	37
52	Direct Observation of HO 2 /O 2 - Free Radicals Generated in Water by a High-Linear Energy Transfer Pulsed Heavy-Ion Beam. Radiation Research, 1998, 149, 128.	0.7	44
53	A method to improve the nonrepetitive acquisition of transient absorption spectra with an intensified charge-coupled device camera. Review of Scientific Instruments, 1998, 69, 1605-1609.	0.6	6
54	Effet du TEL sur le rendement et sur la cinÃ©tique de disparition de lâ€™Ã©lectron aqueux crÃ©Ã© par des impulsions dâ€™ions C6+ de 75 MeV/A. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1997, 94, 200-204.	0.2	7

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55	RÃ1e de la charge de la sonde molÃ©culaire sur la solvatation. Aspects statiques et dynamiques. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1996, 93, 117-127.	0.2	1
56	A femtosecond fluorescence up-conversion study of the dynamic Stokes shift of the DCM dye molecule in polar and non-polar solvents. Chemical Physics Letters, 1995, 236, 587-594.	1.2	111
57	Femtosecond absorption and emission spectroscopy of the DCM laser dye. Journal of Molecular Liquids, 1995, 64, 101-112.	2.3	33
58	‹title›Femtosecond laser studies of the DCM push-pull molecule‹/title›. , 1995, , .		4
59	Photochemistry of an unsymmetrical polymethine-cyanine dye; soluteâ€"solvent interactions and relaxation dynamics of LDS 751. Journal of Photochemistry and Photobiology A: Chemistry, 1994, 84, 45-55.	2.0	30
60	Sub-picosecond fluorescence study of the LDS 751 dye molecule in ethanol. Chemical Physics Letters, 1993, 213, 345-350.	1.2	14