

# Joaquin Molla

## List of Publications by Year in descending order

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80  
papers

844  
citations

623734

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610901

24  
g-index

80  
all docs

80  
docs citations

80  
times ranked

644  
citing authors

#	ARTICLE	IF	CITATIONS
1	Overview of the IFMIF/EVEDA project. Nuclear Fusion, 2017, 57, 102016.	3.5	76
2	Dielectric spectroscopy of alumina ceramics over a wide frequency range. Journal of Nuclear Materials, 1998, 253, 141-148.	2.7	55
3	Effect of humidity on microwave dielectric losses of porous alumina. Journal of Applied Physics, 1999, 85, 1727-1730.	2.5	49
4	Wide frequency dielectric properties of CVD diamond. Diamond and Related Materials, 1997, 6, 856-859.	3.9	48
5	Dielectric property measurement system at cryogenic temperature and microwave frequencies. IEEE Transactions on Instrumentation and Measurement, 1993, 42, 817-821.	4.7	39
6	Effect of Mg doping on dielectric properties of alumina. Journal of Applied Physics, 1996, 80, 1028-1032.	2.5	34
7	Alumina ceramics for heating systems. Journal of Nuclear Materials, 1994, 212-215, 1029-1034.	2.7	30
8	Neutron irradiation effects on optical absorption of KU1 and KS-4V quartz glasses and Infrasil 301. Fusion Engineering and Design, 2009, 84, 1174-1178.	1.9	30
9	Small specimen test technology and methodology of IFMIF/EVEDA and the further subjects. Journal of Nuclear Materials, 2011, 417, 1325-1330.	2.7	26
10	Dielectric losses of self-supporting chemically vapour deposited diamond materials. Diamond and Related Materials, 2000, 9, 1071-1075.	3.9	19
11	Validation of the Linear IFMIF Prototype Accelerator (LIPAc) in Rokkasho. Fusion Engineering and Design, 2020, 153, 111503.	1.9	17
12	Dielectric properties of alumina/zirconia composites at millimeter wavelengths. Journal of Applied Physics, 1993, 73, 7667-7671.	2.5	16
13	Fully Digital and White Rabbit-Synchronized Low-Level RF System for LIPAc. IEEE Transactions on Nuclear Science, 2018, 65, 514-522.	2.0	16
14	Sensitivity of IFMIF-DONES irradiation characteristics to different design parameters. Nuclear Fusion, 2015, 55, 123024.	3.5	15
15	Planned material irradiation capabilities of IFMIF-DONES. Nuclear Materials and Energy, 2018, 16, 245-248.	1.3	15
16	Insulator dielectric properties during irradiation. Journal of Nuclear Materials, 1994, 212-215, 1113-1118.	2.7	14
17	Overview of the current status of IFMIF-DONES test cell biological shielding design. Fusion Engineering and Design, 2018, 136, 628-632.	1.9	14
18	The LIPAc beam dump. Fusion Engineering and Design, 2018, 127, 127-138.	1.9	14

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19	Identification and characterization of defects produced in irradiated fused silica through molecular dynamics. Journal of Nuclear Materials, 2007, 367-370, 344-349.	2.7	13
20	Radiation effects on dielectric losses of Au-doped silicon. Journal of Nuclear Materials, 1998, 258-263, 1884-1888.	2.7	12
21	Molecular dynamics study of structure transformation and H effects in irradiated silica. Journal of Nuclear Materials, 2009, 386-388, 75-78.	2.7	12
22	The role of C-impurities in alumina dielectrics. Journal of the European Ceramic Society, 2004, 24, 1513-1516.	5.7	11
23	Status and future developments of the Linear IFMIF Prototype Accelerator (LIPAc). Fusion Engineering and Design, 2021, 168, 112621.	1.9	11
24	Electron-irradiated silicon: An optimized material for gyrotron windows. Journal of Nuclear Materials, 1995, 218, 108-112.	2.7	10
25	Radiation effects on the dielectric properties of fused silica. Nuclear Instruments & Methods in Physics Research B, 2004, 218, 189-193.	1.4	10
26	Engineering progress of the linear IFMIF prototype accelerator (LIPAc). Fusion Engineering and Design, 2013, 88, 2497-2501.	1.9	10
27	Detailed mechanical design of the LIPAc beam dump radiological shielding. Fusion Engineering and Design, 2013, 88, 2723-2727.	1.9	9
28	The effect of carbon additives on the dielectric behaviour of alumina ceramics. Acta Materialia, 2006, 54, 2777-2782.	7.9	8
29	Vacuum ultraviolet excitation of the 2.7eV emission band in neutron irradiated silica. Journal of Non-Crystalline Solids, 2009, 355, 1034-1037.	3.1	8
30	Thermoluminescence in MgAl <sub>2</sub> O <sub>4</sub> above 300K. Radiation Effects and Defects in Solids, 1991, 119-121, 63-68.	1.2	7
31	The effect of ZrO <sub>2</sub> doping on mechanical and dielectric properties of Al <sub>2</sub> O <sub>3</sub> and MgAl <sub>2</sub> O <sub>4</sub> . Journal of Nuclear Materials, 1991, 179-181, 375-378.	2.7	7
32	Pre- and post-irradiation studies on mm-wave losses in reference window materials for electron cyclotron wave systems. Journal of Nuclear Materials, 1998, 258-263, 1822-1826.	2.7	7
33	Electrical and dielectric properties of irradiated KU1 quartz glass from DC to 145 GHz. Journal of Nuclear Materials, 2002, 307-311, 1273-1276.	2.7	7
34	Overview of the main challenges for the engineering design of the test facilities system of IFMIF. Fusion Engineering and Design, 2009, 84, 247-251.	1.9	7
35	RAMI analyses of the IFMIF accelerator facility and first availability allocation between systems. Fusion Engineering and Design, 2013, 88, 2728-2731.	1.9	7
36	Potential irradiation of Cu alloys and tungsten samples in DONES. Nuclear Fusion, 2017, 57, 126056.	3.5	7

#	ARTICLE	IF	CITATIONS
37	Dielectric losses in CVD diamonds at frequencies 1 kHz - 360 GHz and temperatures 0.9-900 K. , 0, , .		6
38	Vacuum ultraviolet excitation of the 4.4eV emission band in neutron irradiated KU1 and KS-4Vquartz glasses. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 2928-2931.	1.4	6
39	Design plan and requirement of test module and testing items in IFMIF. Fusion Engineering and Design, 2011, 86, 712-715.	1.9	6
40	Present status of the Liquid Breeder Validation Module for IFMIF. Fusion Engineering and Design, 2013, 88, 863-867.	1.9	6
41	Availability simulation software adaptation to the IFMIF accelerator facility RAMI analyses. Fusion Engineering and Design, 2014, 89, 2425-2429.	1.9	6
42	Hardware availability calculations and results of the IFMIF accelerator facility. Fusion Engineering and Design, 2014, 89, 2388-2392.	1.9	6
43	Remote disconnection system for the beam dump of the LIPAc accelerator. Fusion Engineering and Design, 2017, 125, 123-126.	1.9	6
44	Numerical investigation of hydrogen isotope retention by an yttrium pebble-bed from flowing liquid lithium. Nuclear Fusion, 2020, 60, 106017.	3.5	6
45	First validation experiments of the prototype solid state RF system for IFMIF-DONES. Fusion Engineering and Design, 2021, 168, 112396.	1.9	6
46	New potentials for high mechanical strength grades of polycrystalline alumina for EC waves windows. Journal of Nuclear Materials, 1992, 191-194, 530-534.	2.7	5
47	A dielectric property measurement system for thin samples based on a resonant cavity with three dielectric regions. Measurement Science and Technology, 2002, 13, 50-58.	2.6	5
48	Radioprotection Analysis for the High Energy Beam Transport Line of the Accelerator Facility of IFMIF. Fusion Science and Technology, 2012, 62, 240-245.	1.1	5
49	Neutronics study for the installation of the LBVM in the medium flux area of IFMIF. Fusion Engineering and Design, 2013, 88, 233-242.	1.9	5
50	RAMI strategies in the IFMIF Test Facilities design. Fusion Engineering and Design, 2013, 88, 2535-2538.	1.9	5
51	Availability, reliability and logistic support studies of the RF power system design options for the IFMIF accelerator. Fusion Engineering and Design, 2013, 88, 2732-2735.	1.9	5
52	Boiling bubbles monitoring for the protection of the LIPAc beam-dump. Fusion Engineering and Design, 2015, 96-97, 917-921.	1.9	5
53	Single-step port-reconfigurable cavity combiner with high efficiency. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 972, 164108.	1.6	5
54	LIPAc RF power system: design and main practical implementation issues. Fusion Engineering and Design, 2021, 165, 112226.	1.9	5

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55	In-beam dielectric properties of alumina. Journal of Nuclear Materials, 1995, 219, 182-189.	2.7	4
56	The role of the fused silica stoichiometry on the intrinsic defects concentration. Journal of Nuclear Materials, 2007, 367-370, 1122-1127.	2.7	4
57	Microstructural and electrical features of lithium Ce-monazite. Solid State Ionics, 2008, 179, 256-262.	2.7	4
58	Preliminary design of the Neutron Spectral Shifter that is dedicated to the IFMIF Liquid Breeder Validation Module. Fusion Engineering and Design, 2014, 89, 1728-1733.	1.9	4
59	Neutronic study of extended DONES irradiation module. Fusion Engineering and Design, 2016, 109-111, 1212-1216.	1.9	4
60	IFMIF-DONES RF System. Fusion Engineering and Design, 2021, 167, 112322.	1.9	4
61	Development of an on-line sensor for hydrogen isotopes monitoring in flowing lithium at DONES. Fusion Engineering and Design, 2020, 161, 112010.	1.9	4
62	Workload foreseen for the IFMIF Post Irradiation Examination Facility. Fusion Engineering and Design, 2011, 86, 2522-2525.	1.9	3
63	Basic design guideline for the preliminary engineering design of PIE facilities in IFMIF/EVEDA. Fusion Engineering and Design, 2011, 86, 2904-2907.	1.9	3
64	Integration of 175-MHz LIPAc RF System and RFQ Linac for Beam Commissioning. IEEE Transactions on Plasma Science, 2020, 48, 1489-1495.	1.3	3
65	Design, manufacturing and tests of the LIPAc high energy beam transport line. Nuclear Fusion, 2021, 61, 015001.	3.5	3
66	Vacuum ultraviolet excitation spectra of the 1.9 eV luminescence in neutron irradiated KU1 and KS-4V quartz glasses and Infrasil 301. IOP Conference Series: Materials Science and Engineering, 2010, 15, 012051.	0.6	2
67	Application of Galerkin meshfree methods to nonlinear thermo-mechanical simulation of solids under extremely high pulsed loading. Fusion Engineering and Design, 2013, 88, 2744-2747.	1.9	2
68	Functional Overview of the RF Power System for the LIPAc RFQ. IEEE Transactions on Plasma Science, 2021, 49, 2987-2996.	1.3	2
69	Design of a multi-isotopic hydrogen co- and counter-permeation experiment for HCPB related tritium mitigation studies. Fusion Engineering and Design, 2022, 175, 112991.	1.9	2
70	CIEMAT experimental proposal on lithium ignition in support of DONES licensing (LiFIRE facility). Nuclear Materials and Energy, 2022, 31, 101177.	1.3	2
71	Dielectric Spectroscopy of Alumina Ceramics. Materials Science Forum, 1997, 239-241, 73-76.	0.3	1
72	CVD diamonds for microelectronics and electronics of high powers. , 0, , .		1

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73	Molecular dynamics study of defect in amorphous silica; generation and migration. Journal of Physics: Conference Series, 2008, 112, 032032.	0.4	1
74	Activation analyses for the IFMIF-Liquid Breeder Validation Module (LBVM). Fusion Engineering and Design, 2014, 89, 397-404.	1.9	1
75	Neutron production measurement in the 125 mA 5ÂMeV deuteron beam commissioning of Linear IFMIF Prototype Accelerator (LIPAc) RFQ. Nuclear Fusion, 2021, 61, 116002.	3.5	1
76	Dielectric Data of Zn- Doped Alumina Materials Obtained from Different Precursor Powders. Key Engineering Materials, 2001, 206-213, 1333-1336.	0.4	0
77	Atomistic Simulations of Displacement Cascades in Fused Silica: It is Compared with Different Concentration of H in the Bulk. Materials Research Society Symposia Proceedings, 2006, 981, 1.	0.1	0
78	Radiation effects in IFMIF Li target diagnostic systems. Journal of Nuclear Materials, 2009, 386-388, 983-986.	2.7	0
79	Status of IFMIF EVEDA, One Year After Its Start-Up. Fusion Science and Technology, 2009, 56, 259-266.	1.1	0
80	Dielectric losses in gases under ionizing radiation. , 1993, , .		0