Alessandro Del Nevo

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Tokamak cooling systems and power conversion system options. Fusion Engineering and Design, 2022, 178, 113093.	1.9	26
2	Maturation of critical technologies for the DEMO balance of plant systems. Fusion Engineering and Design, 2022, 179, 113096.	1.9	24
3	Status of maturation of critical technologies and systems design: Breeding blanket. Fusion Engineering and Design, 2022, 179, 113116.	1.9	44
4	Assessment of SIMMER-III code in predicting Water Cooled Lithium Lead Breeding Blanket "in-box-Loss of Coolant Accident― Fusion Engineering and Design, 2021, 163, 112127.	1.9	13
5	Experimental Investigation on CIRCE-HERO for the EU DEMO PbLi/Water Heat Exchanger Development. Energies, 2021, 14, 628.	3.1	3
6	Analysis of the thermal-hydraulic behavior of the EU-DEMO WCLL breeding blanket cooling systems during a loss of flow accident. Fusion Engineering and Design, 2021, 164, 112206.	1.9	10
7	Study of the EU-DEMO WCLL Breeding Blanket Primary Cooling Circuits Thermal-Hydraulic Performances during Transients Belonging to LOFA Category. Energies, 2021, 14, 1541.	3.1	11
8	Post-test analysis of Series D experiments in LIFUS5/Mod3 facility for SIMMER code validation of WCLL-BB In-box LOCA. Fusion Engineering and Design, 2021, 165, 112268.	1.9	6
9	Electromagnetic analysis activities in support of the Breeding Blanket during the DEMO Pre-Conceptual Design Phase: Methodology and main results. Fusion Engineering and Design, 2021, 166, 112285.	1.9	10
10	Total loss of flow benchmark in CIRCE-HERO integral test facility. Nuclear Engineering and Design, 2021, 376, 111086.	1.7	11
11	Conceptual design of the main Ancillary Systems of the ITER Water Cooled Lithium Lead Test Blanket System. Fusion Engineering and Design, 2021, 167, 112345.	1.9	11
12	Structural assessment of the EU-DEMO WCLL Central Outboard Blanket segment under normal and off-normal operating conditions. Fusion Engineering and Design, 2021, 167, 112350.	1.9	10
13	Thermo-hydraulic analysis of PbLi ancillary system of WCLL TBM undergoing in-box LOCA. Fusion Engineering and Design, 2021, 168, 112614.	1.9	5
14	Nuclear performances of the water-cooled lithium lead DEMO reactor: Neutronic analysis on a fully heterogeneous model. Fusion Engineering and Design, 2021, 168, 112514.	1.9	20
15	Development of a PbLi heat exchanger for EU DEMO fusion reactor: Experimental test and system code assessment. Fusion Engineering and Design, 2021, 169, 112462.	1.9	1
16	Preliminary analysis of an in-box LOCA in the breeding unit of the WCLL TBM for the ITER reactor with SIMMER-IV code. Fusion Engineering and Design, 2021, 169, 112472.	1.9	8
17	Overview on Lead-Cooled Fast Reactor Design and Related Technologies Development in ENEA. Energies, 2021, 14, 5157.	3.1	25
18	Pre-conceptual design of EU DEMO balance of plant systems: Objectives and challenges. Fusion Engineering and Design, 2021, 169, 112504.	1.9	25

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19	Preliminary design of a helical coil steam generator mock-up for the CIRCE facility for the development of DEMO LiPb heat exchanger. Fusion Engineering and Design, 2021, 169, 112459.	1.9	8
20	Modelling of thermal conductivity and melting behaviour of minor actinide-MOX fuels and assessment against experimental and molecular dynamics data. Journal of Nuclear Materials, 2021, 557, 153312.	2.7	12
21	Assessment of three European fuel performance codes against the SUPERFACT-1 fast reactor irradiation experiment. Nuclear Engineering and Technology, 2021, 53, 3367-3378.	2.3	10
22	The TRANSURANUS fuel performance code. , 2021, , 161-205.		8
23	Integrated design of breeding blanket and ancillary systems related to the use of helium or water as a coolant and impact on the overall plant design. Fusion Engineering and Design, 2021, 173, 112933.	1.9	23
24	The DEMO Water-Cooled Lead–Lithium Breeding Blanket: Design Status at the End of the Pre-Conceptual Design Phase. Applied Sciences (Switzerland), 2021, 11, 11592.	2.5	54
25	Experimental and Numerical Results of LIFUS5/Mod3 Series E Test on In-Box LOCA Transient for WCLL-BB. Energies, 2021, 14, 8527.	3.1	9
26	Design and preliminary analyses of the new Water Cooled Lithium Lead TBM for ITER. Fusion Engineering and Design, 2020, 160, 111921.	1.9	34
27	Parametric study of the influence of double-walled tubes layout on the DEMO WCLL breeding blanket thermal performances. Fusion Engineering and Design, 2020, 161, 111893.	1.9	6
28	Optimization of the first wall cooling system for the DEMO WCLL blanket. Fusion Engineering and Design, 2020, 161, 111903.	1.9	8
29	Fusion technologies development at ENEA Brasimone Research Centre: Status and perspectives. Fusion Engineering and Design, 2020, 160, 112008.	1.9	9
30	Experimental Characterization of Leak Detection Systems in HLM Pool Using LIFUS5/Mod3 Facility. Nuclear Technology, 2020, 206, 1409-1420.	1.2	6
31	Influence of PbLi hydraulic path and integration layout on MHD pressure losses. Fusion Engineering and Design, 2020, 155, 111517.	1.9	24
32	Test Series D experimental results for SIMMER code validation of WCLL BB in-box LOCA in LIFUS5/Mod3 facility. Fusion Engineering and Design, 2020, 156, 111582.	1.9	18
33	On the impact of the heat transfer modelling approach on the prediction of EU-DEMO WCLL breeding blanket thermal performances. Fusion Engineering and Design, 2020, 161, 112051.	1.9	3
34	Hybrid 1D + 2D Modelling for the Assessment of the Heat Transfer in the EU DEMO Water-Cooled Lithium-Lead Manifolds. Energies, 2020, 13, 3525.	3.1	3
35	Modelling and assessment of thermal conductivity and melting behaviour of MOX fuel for fast reactor applications. Journal of Nuclear Materials, 2020, 541, 152410.	2.7	16
36	Nuclear analysis of the Water cooled lithium lead DEMO reactor. Fusion Engineering and Design, 2020, 160, 111833.	1.9	17

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37	Electromagnetic coupling phenomena in co-axial rectangular channels. Fusion Engineering and Design, 2020, 160, 111854.	1.9	10
38	Preliminary design of the top cap of DEMO Water-Cooled Lithium Lead breeding blanket segments. Fusion Engineering and Design, 2020, 161, 111884.	1.9	5
39	Analysis of Test D1.1 of the LIFUS5/Mod3 facility for In-box LOCA in WCLL-BB. Fusion Engineering and Design, 2020, 160, 111832.	1.9	10
40	Assessment of DEMO WCLL breeding blanket primary heat transfer system isolation valve absorbed doses due to activated water. Fusion Engineering and Design, 2020, 160, 111999.	1.9	8
41	Thermal-hydraulic analysis of the DEMO WCLL elementary cell: BZ tubes layout optimization. Fusion Engineering and Design, 2020, 160, 111956.	1.9	13
42	Thermal-hydraulic modeling and analysis of the Water Cooling System for the ITER Test Blanket Module. Fusion Engineering and Design, 2020, 158, 111709.	1.9	10
43	Progress of the conceptual design of the European DEMO breeding blanket, tritium extraction and coolant purification systems. Fusion Engineering and Design, 2020, 157, 111640.	1.9	46
44	Investigation of the DEMO WCLL Breeding Blanket Cooling Water Activation. Fusion Engineering and Design, 2020, 157, 111697.	1.9	13
45	MHD forced convection flow in dielectric and electro-conductive rectangular annuli. Fusion Engineering and Design, 2020, 159, 111773.	1.9	13
46	Investigation of heat transfer in a steam generator bayonet tube for the development of PbLi technology for EU DEMO fusion reactor. Fusion Engineering and Design, 2020, 159, 111772.	1.9	12
47	MHD pressure drop estimate for the WCLL in-magnet PbLi loop. Fusion Engineering and Design, 2020, 160, 111830.	1.9	14
48	Preliminary Thermo-Mechanical Design of the Once Through Steam Generator and Molten Salt Intermediate Heat Exchanger for EU DEMO. IEEE Transactions on Plasma Science, 2020, 48, 1726-1732.	1.3	1
49	RELAP5/SIMMER-III code coupling development for PbLi-water interaction. Fusion Engineering and Design, 2020, 153, 111504.	1.9	16
50	RELAP5-3D Three-Dimensional Analysis Based on PHÉNIX Dissymmetric Transient Test. Journal of Nuclear Engineering and Radiation Science, 2020, 6, .	0.4	0
51	Systems engineering activities supporting the heating & current drive and fuelling lines systems integration in the European DEMO breeding blanket. Fusion Engineering and Design, 2019, 147, 111265.	1.9	11
52	Parametric study of the influence of First Wall cooling water on the Water Cooled Lithium Lead Breeding Blanket nuclear response. Fusion Engineering and Design, 2019, 146, 2070-2073.	1.9	5
53	Thermal-hydraulic and thermo-mechanical simulations of Water-Heavy Liquid Metal interactions towards the DEMO WCLL breeding blanket design. Fusion Engineering and Design, 2019, 146, 2712-2716.	1.9	9
54	Experimental analysis of stationary and transient scenarios of alfred steam generator bayonet tube in circe-hero facility. Nuclear Engineering and Design, 2019, 352, 110169.	1.7	22

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55	DEMO WCLL breeding zone cooling system design: Analysis and discussion. Fusion Engineering and Design, 2019, 146, 2632-2638.	1.9	12
56	Post-test simulation of a PLOFA transient test in the CIRCE-HERO facility. Nuclear Engineering and Design, 2019, 355, 110321.	1.7	16
57	Steam Generator mock-up preliminary design suitable for Pb-Li technology demonstration and code assessment. Fusion Engineering and Design, 2019, 146, 1126-1130.	1.9	6
58	Parametric thermal analysis for the optimization of Double Walled Tubes layout in the Water Cooled Lithium Lead inboard blanket of DEMO fusion reactor. Journal of Physics: Conference Series, 2019, 1224, 012031.	0.4	4
59	System thermal-hydraulic modelling of the phénix dissymmetric test benchmark. Nuclear Engineering and Design, 2019, 353, 110272.	1.7	6
60	Experimental activities for in-box LOCA of WCLL BB in LIFUS5/Mod3 facility. Fusion Engineering and Design, 2019, 146, 914-919.	1.9	26
61	Validation of SIMMER-III code for in-box LOCA of WCLL BB: Pre-test numerical analysis of Test D1.1 in LIFUS5/Mod3 facility. Fusion Engineering and Design, 2019, 146, 978-982.	1.9	13
62	Investigation on cooling performance of WCLL breeding blanket first wall for EU DEMO. Fusion Engineering and Design, 2019, 146, 2748-2756.	1.9	8
63	Development of a SIMMERRELAP5 coupling tool. Fusion Engineering and Design, 2019, 146, 1993-1997.	1.9	13
64	Status of Pb-16Li technologies for European DEMO fusion reactor. Fusion Engineering and Design, 2019, 146, 2676-2681.	1.9	21
65	Recent progress in developing a feasible and integrated conceptual design of the WCLL BB in EUROfusion project. Fusion Engineering and Design, 2019, 146, 1805-1809.	1.9	126
66	Updated design of water-cooled breeder blanket for CFETR. Fusion Engineering and Design, 2019, 146, 1716-1720.	1.9	33
67	MHD mixed convection flow in the WCLL: Heat transfer analysis and cooling system optimization. Fusion Engineering and Design, 2019, 146, 809-813.	1.9	30
68	On the effect of stiffening plates configuration on the DEMO Water Cooled Lithium Lead Breeding Blanket module thermo-mechanical behaviour. Fusion Engineering and Design, 2019, 146, 2247-2250.	1.9	18
69	On the effects of the Double-Walled Tubes lay-out on the DEMO WCLL breeding blanket module thermal behavior. Fusion Engineering and Design, 2019, 146, 883-886.	1.9	3
70	Alternative design of DEMO Water Cooled Lithium Lead internal structure. Fusion Engineering and Design, 2019, 146, 1056-1059.	1.9	7
71	Thermal-hydraulic modeling and analyses of the water-cooled EU DEMO using RELAP5 system code. Fusion Engineering and Design, 2019, 146, 1121-1125.	1.9	26

52 System thermal hydraulics for liquid metals. , 2019, , 157-184.

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73	Recent Progress in the WCLL Breeding Blanket Design for the DEMO Fusion Reactor. IEEE Transactions on Plasma Science, 2018, 46, 1446-1457.	1.3	49
74	GEN-IV LFR development: Status & perspectives. Progress in Nuclear Energy, 2018, 105, 318-331.	2.9	91
75	Thermo-hydraulic analysis of EU DEMO WCLL breeding blanket. Fusion Engineering and Design, 2018, 130, 48-55.	1.9	16
76	Advancements in DEMO WCLL breeding blanket design and integration. International Journal of Energy Research, 2018, 42, 27-52.	4.5	77
77	Thermal Hydraulic Analysis of the CIRCE-HERO Pool-Type Facility. , 2018, , .		4
78	Parametric thermal-hydraulic analysis of the EU DEMO Water-Cooled Lithium-Lead First Wall using the GETTHEM code. Fusion Engineering and Design, 2018, 137, 257-267.	1.9	4
79	Numerical assessment of the thermomechanical behaviour of the DEMO Water-Cooled Lithium Lead inboard blanket equatorial module. Fusion Engineering and Design, 2018, 136, 1178-1185.	1.9	8
80	Neutronic analyses in support of the WCLL DEMO design development. Fusion Engineering and Design, 2018, 136, 1260-1264.	1.9	30
81	Analysis of EM loads on DEMO WCLL breeding blanket during VDE-up. Fusion Engineering and Design, 2018, 136, 1523-1528.	1.9	16
82	Multi-Module vs. Single-Module concept: Comparison of thermomechanical performances for the DEMO Water-Cooled Lithium Lead breeding blanket. Fusion Engineering and Design, 2018, 136, 1472-1478.	1.9	21
83	Pre-test analysis of accidental transients for ALFRED SCBT mock-up characterization. Nuclear Engineering and Design, 2018, 333, 181-195.	1.7	13
84	Status of EU DEMO heat transport and power conversion systems. Fusion Engineering and Design, 2018, 136, 1557-1566.	1.9	50
85	Study of EU DEMO WCLL breeding blanket and primary heat transfer system integration. Fusion Engineering and Design, 2018, 136, 828-833.	1.9	44
86	Thermo-structural design of the European DEMO water-cooled blanket with a multiscale-multiphysics framework. Fusion Engineering and Design, 2018, 135, 31-41.	1.9	10
87	Progress in EU Breeding Blanket design and integration. Fusion Engineering and Design, 2018, 136, 782-792.	1.9	50
88	Phénix Transient Analysis for the Assessment of RELAP5-3D Based on Dissymmetric Test Benchmark. , 2018, , .		2
89	Structural analysis of the back supporting structure of the DEMO WCLL outboard blanket. Fusion Engineering and Design, 2017, 124, 944-947.	1.9	17
90	Dynamic thermal-hydraulic modelling of the EU DEMO WCLL breeding blanket cooling loops. Fusion Engineering and Design, 2017, 124, 887-891.	1.9	13

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91	Rationale and method for design of DEMO WCLL breeding blanket poloidal segmentation. Fusion Engineering and Design, 2017, 124, 664-668.	1.9	10
92	WCLL breeding blanket design and integration for DEMO 2015: status and perspectives. Fusion Engineering and Design, 2017, 124, 682-686.	1.9	91
93	Preliminary System Modeling for the EUROfusion Water Cooled Lithium Lead Blanket. Fusion Science and Technology, 2017, 71, 444-449.	1.1	15
94	Experimental Investigation in LIFUS5/Mod2 Facility of Spiral-Tube Steam Generator Rupture Scenarios for ELFR. , 2017, , .		3
95	HERO Test Section for Experimental Investigation of Steam Generator Bayonet Tube of ALFRED. , 2017, , .		3
96	DEMO port plug design and integration studies. Nuclear Fusion, 2017, 57, 116028.	3.5	6
97	Post-test analyses of LIFUS5 Test#3 experiment. Fusion Engineering and Design, 2017, 124, 856-860.	1.9	14
98	Progress in EU-DEMO in-vessel components integration. Fusion Engineering and Design, 2017, 124, 562-566.	1.9	20
99	CFD analysis of WCLL BB PbLi manifold. Fusion Engineering and Design, 2017, 124, 1015-1018.	1.9	3
100	On the thermo-mechanical behaviour of DEMO water-cooled lithium lead equatorial outboard blanket module. Fusion Engineering and Design, 2017, 124, 725-729.	1.9	24
101	CFD simulation of the magnetohydrodynamic flow inside the WCLL breeding blanket module. Fusion Engineering and Design, 2017, 124, 705-709.	1.9	20
102	Pre-test analysis of protected loss of primary pump transients in CIRCE-HERO facility. Journal of Physics: Conference Series, 2017, 923, 012005.	0.4	1
103	Validation of a Three-Dimensional Model of EBR-II and Assessment of RELAP5-3D Based on SHRT-17 Test. Nuclear Technology, 2016, 193, 1-14.	1.2	8
104	Assessment of SIMMER-III Code Based on Steam Generator Tube Rupture Experiments in LIFUS5/Mod2 Facility. , 2016, , .		4
105	Experimental Investigation of Spiral Tubes Steam Generator Rupture Scenarios in LIFUS5/Mod2 Facility for ELFR. , 2016, , .		3
106	Addressing the heavy liquid metal – Water interaction issue in LBE system. Progress in Nuclear Energy, 2016, 89, 204-212.	2.9	15
107	Optimization of the breeder zone cooling tubes of the DEMO Water-Cooled Lithium Lead breeding blanket. Fusion Engineering and Design, 2016, 109-111, 227-231.	1.9	16
108	Implementation of the chemical PbLi/water reaction in the SIMMER code. Fusion Engineering and Design, 2016, 109-111, 468-473.	1.9	24

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109	Objectives and status of EUROfusion DEMO blanket studies. Fusion Engineering and Design, 2016, 109-111, 1199-1206.	1.9	168
110	Simulation study of pressure trends in the case of loss of coolant accident in Water Cooled Lithium Lead blanket module. Fusion Engineering and Design, 2015, 98-99, 1763-1766.	1.9	17
111	Experimental investigation and SIMMER-III code modelling of LBE–water interaction in LIFUS5/Mod2 facility. Nuclear Engineering and Design, 2015, 290, 119-126.	1.7	36
112	Development of a model for the thermal-hydraulic characterization of the He-FUS3 loop. Fusion Engineering and Design, 2015, 96-97, 212-216.	1.9	8
113	MHD issues related to the use of Lithium Lead eutectic as breeder material for blankets of fusion power plants. Magnetohydrodynamics, 2015, 51, 185-194.	0.3	0
114	Coupled Simulations of Natural and Forced Circulation Tests in NACIE Facility Using RELAP5 and ANSYS Fluent Codes. , 2014, , .		6
115	Water/Pb-Bi Interaction Experiments in LIFUS5/Mod2 Facility Modelled by SIMMER Code. , 2014, , .		7
116	Qualification of TRACE V5.0 Code against Fast Cooldown Transient in the PKL-III Integral Test Facility. Science and Technology of Nuclear Installations, 2013, 2013, 1-11.	0.8	4
117	Validation of Advanced Computer Codes for VVER Technology: LB-LOCA Transient in PSB-VVER Facility. Science and Technology of Nuclear Installations, 2012, 2012, 1-15.	0.8	10
118	Consistent Posttest Calculations for LOCA Scenarios in LOBI Integral Facility. Science and Technology of Nuclear Installations, 2012, 2012, 1-16.	0.8	4
119	OECD/NRC PSBT Benchmark: Investigating the CATHARE2 Capability to Predict Void Fraction in PWR Fuel Bundle. Science and Technology of Nuclear Installations, 2012, 2012, 1-10.	0.8	3
120	Integral Test Facilities and Thermal-Hydraulic System Codes in Nuclear Safety Analysis. Science and Technology of Nuclear Installations, 2012, 2012, 1-3.	0.8	6
121	Methodology for the Analysis of Fuel Behavior During LOCA and RIA for Licensing Purposes. , 2012, , .		1
122	Assessing Sensitivity of Observations in Source Term Estimation for Nuclear Accidents. , 2012, , .		1
123	Modeling of BWR Inter-Ramp Project experiments by means of TRANSURANUS code. Annals of Nuclear Energy, 2012, 50, 238-250.	1.8	5
124	Investigation of accident management procedures related to loss of feedwater and station blackout in PSB-WER integral test facility. Nuclear Engineering and Design, 2012, 250, 633-645.	1.7	11
125	Preliminary Discussion on LFR Fuel Pin Design: Current Status, Fuel Modeling and Open Issues. , 2012, , .		2
126	Modeling Large Break-LOCA: In Reactor Fuel Bundle Materials Test MT-4 and MT-6A. , 2012, , .		0

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127	Characteristics Analysis of SCWR During Partial Loss of Reactor Coolant Flow Transient. , 2012, , .		Ο
128	LIFUS5/Mod2: The Experimental Facility for HLM/Water Interaction Investigation. , 2012, , .		0
129	Post Test Analysis of ICE Tests. , 2012, , .		2
130	Experimental investigation of in-vessel mixing phenomena in a VVER-1000 scaled test facility during unsteady asymmetric transients. Nuclear Engineering and Design, 2011, 241, 3068-3075.	1.7	12
131	Uncertainty and sensitivity analysis of a LBLOCA in a PWR Nuclear Power Plant: Results of the Phase V of the BEMUSE programme. Nuclear Engineering and Design, 2011, 241, 4206-4222.	1.7	60
132	Capabilities of TRANSURANUS code in simulating power ramp tests from the IFPE database. Nuclear Engineering and Design, 2011, 241, 1078-1086.	1.7	7
133	A Procedure to Address the Fuel Rod Failures during LB-LOCA Transient in Atucha-2 NPP. Science and Technology of Nuclear Installations, 2011, 2011, 1-11.	0.8	8
134	Main Results of Phase IV BEMUSE Project: Simulation of LBLOCA in an NPP. Science and Technology of Nuclear Installations, 2010, 2010, 1-9.	0.8	3
135	Post Test Analysis of LB LOCA Transient in PSB-VVER by CATHARE2 Code. , 2010, , .		0
136	A Procedure to Address the Fuel Rod Failures During LB-LOCA Transient in Atucha-2 NPP. , 2010, , .		0
137	Optimizing the Initial Pressure of Accumulators for the Atucha2 NPP Using an Optimization Method. , 2009, , .		0
138	CFD Analysis of a Slug Mixing Experiment Conducted on a VVER-1000 Model. Science and Technology of Nuclear Installations, 2009, 2009, 1-12.	0.8	8
139	Assessment of TRANSURANUS Fuel Performance Code Against Studsvik Inter-Ramp BWR Database. , 2009, , .		0
140	Addressing Boron Dilution Scenario Through RELAP5/3.3 Analysis of PWR SB LOCA. , 2009, , .		0
141	Assessment of 12 CHF prediction methods, for an axially non-uniform heat flux distribution, with the RELAP5 computer code. Nuclear Engineering and Design, 2008, 238, 2718-2725.	1.7	6
142	The Design of PSB-VVER Experiments Relevant to Accident Management. Journal of Power and Energy Systems, 2008, 2, 371-385.	0.5	4