

# Marco Utili

## List of Publications by Year in descending order

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79  
papers

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79  
docs citations

79  
times ranked

695  
citing authors

#	ARTICLE	IF	CITATIONS
1	Objectives and status of EUROfusion DEMO blanket studies. Fusion Engineering and Design, 2016, 109-111, 1199-1206.	1.9	168
2	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
3	WCLL breeding blanket design and integration for DEMO 2015: status and perspectives. Fusion Engineering and Design, 2017, 124, 682-686.	1.9	91
4	GEN-IV LFR development: Status & perspectives. Progress in Nuclear Energy, 2018, 105, 318-331.	2.9	91
5	Literature review of lead-lithium thermophysical properties. Fusion Engineering and Design, 2019, 138, 183-195.	1.9	89
6	Corrosion and radiation resistant nanoceramic coatings for lead fast reactors. Corrosion Science, 2017, 124, 80-92.	6.6	88
7	Progress in EU Breeding Blanket design and integration. Fusion Engineering and Design, 2018, 136, 782-792.	1.9	50
8	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
9	Status of maturation of critical technologies and systems design: Breeding blanket. Fusion Engineering and Design, 2022, 179, 113116.	1.9	44
10	Ti <sub>3</sub> SiC <sub>2</sub> as a candidate material for lead cooled fast reactor. Nuclear Engineering and Design, 2011, 241, 1295-1300.	1.7	39
11	Tritium extraction technologies and DEMO requirements. Fusion Engineering and Design, 2016, 109-111, 912-916.	1.9	28
12	Status of the EU DEMO HCLL breeding blanket design development. Fusion Engineering and Design, 2018, 136, 1428-1432.	1.9	27
13	Performance of a hydrogen sensor in Pb- <sup>16</sup> Li. Journal of Nuclear Materials, 2007, 367-370, 1090-1095.	2.7	26
14	Development of anti-permeation and corrosion barrier coatings for the WCLL breeding blanket of the European DEMO. Fusion Engineering and Design, 2021, 170, 112453.	1.9	26
15	Efficient hydrogen and deuterium permeation reduction in Al <sub>2</sub> O <sub>3</sub> coatings with enhanced radiation tolerance and corrosion resistance. Nuclear Fusion, 2018, 58, 126007.	3.5	25
16	Overview on Lead-Cooled Fast Reactor Design and Related Technologies Development in ENEA. Energies, 2021, 14, 5157.	3.1	25
17	The tritium extraction and removal system for the DCLL-DEMO fusion reactor. Nuclear Fusion, 2018, 58, 095002.	3.5	24
18	Technological challenges for the design of the RFX-mod2 experiment. Fusion Engineering and Design, 2019, 146, 692-696.	1.9	23

#	ARTICLE	IF	CITATIONS
19	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
20	Multifunctional nanoceramic coatings for future generation nuclear systems. Fusion Engineering and Design, 2019, 146, 1628-1632.	1.9	22
21	TRIX facility: An experimental loop to test tritium extraction systems from lead lithium. Fusion Engineering and Design, 2007, 82, 2294-2302.	1.9	21
22	Radiation effects on deuterium permeation for PLD alumina coated Eurofer steel measured during 1.8 MeV electron irradiation. Journal of Nuclear Materials, 2018, 512, 118-125.	2.7	21
23	Status of Pb-16Li technologies for European DEMO fusion reactor. Fusion Engineering and Design, 2019, 146, 2676-2681.	1.9	21
24	Tritium technologies and transport modelling: main outcomes from the European TBM Project. Fusion Engineering and Design, 2018, 136, 128-134.	1.9	20
25	Integration issues on tritium management of the European DEMO Breeding Blanket and ancillary systems. Fusion Engineering and Design, 2021, 171, 112573.	1.9	19
26	Experimental study of efficiency of natural oxide layers for reduction of tritium permeation through Eurofer 97. Fusion Engineering and Design, 2009, 84, 385-389.	1.9	18
27	Tritium Extraction From HCLL/WCLL/DCLL PbLi BBs of DEMO and HCLL TBS of ITER. IEEE Transactions on Plasma Science, 2019, 47, 1464-1471.	1.3	18
28	The issue of Tritium in DEMO coolant and mitigation strategies. Fusion Engineering and Design, 2020, 158, 111759.	1.9	18
29	The European Breeding Blanket Test Facility: An integrated device to test European helium cooled TBMs in view of ITER. Fusion Engineering and Design, 2009, 84, 1881-1886.	1.9	17
30	Al <sub>2</sub> O <sub>3</sub> coating as barrier against corrosion in Pb-17Li. Fusion Engineering and Design, 2017, 124, 837-840.	1.9	17
31	Investigation on efficiency of gas liquid contactor used as tritium extraction unit for HCLL-TBM Pb-16Li loop. Fusion Engineering and Design, 2016, 109-111, 1-6.	1.9	16
32	Tritium transport model at the minimal functional unit level for HCLL and WCLL breeding blankets of DEMO. Fusion Engineering and Design, 2018, 136, 1327-1331.	1.9	16
33	Engineering design of a Permeator Against Vacuum mock-up with niobium membrane. Fusion Engineering and Design, 2021, 166, 112313.	1.9	16
34	Tritium transport in HCLL and WCLL DEMO blankets. Fusion Engineering and Design, 2016, 109-111, 248-254.	1.9	15
35	MHD pressure drop estimate for the WCLL in-magnet PbLi loop. Fusion Engineering and Design, 2020, 160, 111830.	1.9	14
36	TRIX-II: an experimental facility for the characterization of the tritium extraction unit of the WCLL blanket of ITER and DEMO fusion reactors. Nuclear Fusion, 2022, 62, 066036.	3.5	14

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37	Tritium management in HCLL-PPCS model AB blanket. Fusion Engineering and Design, 2007, 82, 2195-2203.	1.9	13
38	Tritium Extraction from Liquid Pb-16Li: A Critical Review of Candidate Technologies for ITER and DEMO Applications. Fusion Science and Technology, 2011, 60, 1159-1162.	1.1	12
39	Design of a multipurpose laboratory scale apparatus for the investigation of hydrogen isotopes in PbLi and permeation technologies. Fusion Engineering and Design, 2012, 87, 1342-1346.	1.9	12
40	Design of a new experimental loop and of a coolant purifying system for corrosion experiments of EUROFER samples in flowing PbLi environment. Fusion Engineering and Design, 2017, 124, 1144-1149.	1.9	12
41	Development of advanced hydrogen permeation sensors to measure Q 2 concentration in lead-lithium eutectic alloy. Fusion Engineering and Design, 2017, 124, 735-739.	1.9	11
42	Experimental Qualification of New Instrumentation for Lead-Lithium Eutectic in IELLLO Facility. Fusion Engineering and Design, 2020, 156, 111683.	1.9	11
43	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
44	Design of a Permeator-Against-Vacuum mock-Up for the tritium extraction from PbLi at low speed. Fusion Engineering and Design, 2017, 121, 198-203.	1.9	11
45	Experimental and RELAP5-3D results on IELLLO (Integrated European Lead Lithium LOop) operation. Fusion Engineering and Design, 2017, 123, 143-147.	1.9	10
46	Integration of LiPb loops for WCLL BB of European DEMO. Fusion Engineering and Design, 2021, 167, 112379.	1.9	10
47	A novel approach to the study of magnetohydrodynamic effect on tritium transport in WCLL breeding blanket of DEMO. Fusion Engineering and Design, 2021, 167, 112334.	1.9	10
48	THALLIUM: An experimental facility for simulation of HCLL In-box LOCA and validation of RELAP5-3D system code. Fusion Engineering and Design, 2017, 123, 102-106.	1.9	9
49	Tritium transport model at breeder unit level for WCLL breeding blanket. Fusion Engineering and Design, 2019, 146, 1207-1210.	1.9	9
50	Fusion technologies development at ENEA Brasimone Research Centre: Status and perspectives. Fusion Engineering and Design, 2020, 160, 112008.	1.9	9
51	Magneto-convective effect on tritium transport at breeder unit level for the WCLL breeding blanket of DEMO. Fusion Engineering and Design, 2020, 160, 111996.	1.9	9
52	Long-term corrosion behavior of EUROFER RAFM steel in static liquid Pb-16Li at 550°C. Fusion Engineering and Design, 2020, 160, 111829.	1.9	9
53	Characterization of Pb-15.7Li Hydrogen Isotopes Permeation Sensors and Upgrade of Hyper-Quarch Experimental Device. IEEE Transactions on Plasma Science, 2020, 48, 1505-1511.	1.3	9
54	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

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55	Experimental campaign on pressure wave propagation in LLE. Fusion Engineering and Design, 2018, 136, 809-814.	1.9	8
56	Overview of the Tritium Technologies for the EU DEMO Breeding Blanket. Fusion Science and Technology, 2020, 76, 446-457.	1.1	8
57	HyPer-QuarCh II: A laboratory-scale device for hydrogen isotopes permeation experiments. Fusion Engineering and Design, 2021, 172, 112920.	1.9	8
58	Material Performance in Lead and Lead-Bismuth Alloy. , 2020, , 218-241.		7
59	Conceptual design of a PAV-based tritium extractor for the WCLL breeding blanket of the EU DEMO: Effects of surface-limited vs. diffusion-limited modeling. Fusion Engineering and Design, 2021, 167, 112363.	1.9	7
60	Tritium control in fusion reactor materials: A model for Tritium Extracting System. Fusion Engineering and Design, 2015, 98-99, 1885-1888.	1.9	6
61	Design Optimization of a Hydrogen Sensor for ITER Pb16Li Blankets. IEEE Transactions on Plasma Science, 2017, 45, 1831-1836.	1.3	6
62	Numerical analyses for conceptual design of an irradiation PbLi capsule for testing of protective coatings for the European DEMO breeding blanket project. Fusion Engineering and Design, 2018, 136, 797-802.	1.9	6
63	Experimental investigation on HCLL-TBS In-box LOCA. Fusion Engineering and Design, 2019, 146, 173-177.	1.9	6
64	Development of new analytical tools for tritium transport modelling. Fusion Engineering and Design, 2022, 177, 113083.	1.9	6
65	Reduction of tritium permeation through Inconel 718 and Incoloy 800HT by means of natural oxides. Journal of Nuclear Materials, 2011, 417, 1162-1165.	2.7	5
66	An integrated hydrogen isotopes transport model for the TRIEX-II facility. Fusion Engineering and Design, 2020, 155, 111585.	1.9	5
67	Design of the Test Section for the Experimental Validation of Antipermeation and Corrosion Barriers for WCLL BB. Applied Sciences (Switzerland), 2022, 12, 1624.	2.5	5
68	Experimental campaign on the upgraded He-FUS3 facility. Fusion Engineering and Design, 2017, 123, 181-185.	1.9	4
69	Tritium transport model at breeder unit level for HCLL breeding blanket. Fusion Engineering and Design, 2019, 146, 2319-2322.	1.9	4
70	Verification and Validation of COMSOL Magnetohydrodynamic Models for Liquid Metal Breeding Blankets Technologies. Energies, 2021, 14, 5413.	3.1	4
71	Characterization of aluminum-based coatings after short term exposure during irradiation campaign in the LVR-15 fission reactor. Fusion Engineering and Design, 2021, 170, 112521.	1.9	4
72	Design of a hydrogen/tritium permeation sensor for Gen-IV sodium fast reactors. Vacuum, 2021, 191, 110414.	3.5	4

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73	Integration of DEMO hazard piping into the tokamak building. Fusion Engineering and Design, 2021, 168, 112415.	1.9	3
74	LIFUS II corrosion loop final design and screening of an Al based diffusion coating in stagnant LLE environment. Fusion Engineering and Design, 2020, 160, 112034.	1.9	2
75	Design of a PLD-grown $Y_2O_3$ protective barrier for fusion relevant applications. Nuclear Fusion, 2020, 60, 106018.	3.5	2
76	Upgrading the data acquisition and control systems of the European Breeding Blanket Test Facility. Fusion Engineering and Design, 2013, 88, 687-691.	1.9	1
77	Numerical simulations with RELAP5-3D of the first experimental campaign on In-box LOCA transient for HCLL TBS. Fusion Engineering and Design, 2021, 163, 112160.	1.9	1
78	Experiments on the MHD Effect on the Drainage of a LiPb Channel and Supporting Numerical Computations with the Level Set Method. Fusion Science and Technology, 0, , 1-13.	1.1	1
79	Numerical Simulations with RELAP5-3D and RELAP5/mod3.3 of the Second Experimental Campaign on In-Box LOCA Transients for HCLL TBS. Energies, 2021, 14, 4544.	3.1	0