

# Xavier Duten

## List of Publications by Year in descending order

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36  
papers

713  
citations

516561

16  
h-index

552653

26  
g-index

36  
all docs

36  
docs citations

36  
times ranked

689  
citing authors

#	ARTICLE	IF	CITATIONS
1	DC and pulsed glow discharges in atmospheric pressure air and nitrogen. IEEE Transactions on Plasma Science, 2002, 30, 178-179.	0.6	65
2	Investigation of chemical kinetics and energy transfer in a pulsed microwave H <sub>2</sub> /CH <sub>4</sub> plasma. Plasma Sources Science and Technology, 2001, 10, 61-75.	1.3	53
3	Atomic oxygen surface loss probability on silica in microwave plasmas studied by a pulsed induced fluorescence technique. Plasma Sources Science and Technology, 2006, 15, 479-488.	1.3	50
4	Acetaldehyde removal using an atmospheric non-thermal plasma combined with a packed bed: Role of the adsorption process. Journal of Hazardous Materials, 2014, 279, 356-364.	6.5	42
5	On the hydrocarbon chemistry in a H <sub>2</sub> surface wave discharge containing methane. Plasma Sources Science and Technology, 2001, 10, 52-60.	1.3	35
6	Surface recombination of hydrogen atoms studied by a pulsed plasma excitation technique. Journal of Applied Physics, 2001, 89, 2074-2078.	1.1	35
7	Plasma catalysis application of gold nanoparticles for acetaldehyde decomposition. Chemical Engineering Journal, 2018, 347, 913-922.	6.6	34
8	Rotational temperature measurements of excited and ground states of C <sub>2</sub> (d <sup>3</sup> Π <sub>g</sub> <sup>-</sup> ) transition in a H <sub>2</sub> /CH <sub>4</sub> 915 MHz microwave pulsed plasma. Journal of Applied Physics, 1999, 86, 5299-5301.	1.1	31
9	Overview of the different aspects in modelling moderate pressure H <sub>2</sub> and H <sub>2</sub> /CH <sub>4</sub> microwave discharges. Plasma Sources Science and Technology, 2006, 15, 117-125.	1.3	31
10	Mechanisms of Pyrene Degradation during Soil Treatment in a Dielectric Barrier Discharge Reactor. Plasma Processes and Polymers, 2014, 11, 734-744.	1.6	30
11	Structural and chemical characterisation of soot particles formed in Ar/H <sub>2</sub> /CH <sub>4</sub> microwave discharges during nanocrystalline diamond film synthesis. Diamond and Related Materials, 2006, 15, 908-912.	1.8	28
12	Acetaldehyde removal using a diphasic process coupling a silver-based nano-structured catalyst and a plasma at atmospheric pressure. Catalysis Today, 2013, 208, 82-89.	2.2	28
13	Oxidation of Acetylene in Atmospheric Pressure Pulsed Corona Discharge Cell Working in the Nanosecond Regime. Plasma Chemistry and Plasma Processing, 2009, 29, 173-195.	1.1	25
14	Time-resolved diagnostics of a pin-to-pin pulsed discharge in water: pre-breakdown and breakdown analysis. Journal Physics D: Applied Physics, 2018, 51, 335201.	1.3	22
15	Effects of Pulsed Microwave Plasmas on Diamond Deposition. Journal of the Electrochemical Society, 2003, 150, C311.	1.3	20
16	Growth of Silver Nanoclusters on Monolayer Nanoparticulate Titanium-oxo-alkoxy Coatings. Journal of Physical Chemistry C, 2012, 116, 17239-17247.	1.5	20
17	Methyl Concentration Measurements During Microwave Plasma-Assisted Diamond Deposition. Plasma Chemistry and Plasma Processing, 2000, 20, 1-12.	1.1	17
18	Organic pollutants oxidation by needle/plate plasma discharge: On the influence of the gas nature. Chemical Engineering and Processing: Process Intensification, 2014, 82, 185-192.	1.8	17

#	ARTICLE	IF	CITATIONS
19	A time resolved laser study of hydrocarbon chemistry in H <sub>2</sub> -CH <sub>4</sub> surface wave plasmas. Journal Physics D: Applied Physics, 2001, 34, 2336-2345.	1.3	16
20	New driving parameters for diamond deposition reactors: pulsed mode versus continuous mode. Materials Research, 2003, 6, 25-37.	0.6	16
21	Time-resolved measurements of the gas temperature in a H <sub>2</sub> /CH <sub>4</sub> medium pressure microwave 915 MHz pulsed plasma. Journal Physics D: Applied Physics, 2002, 35, 1939-1945.	1.3	15
22	Energy coupling efficiency of a hydrogen microwave plasma reactor. Journal of Applied Physics, 2001, 89, 1544.	1.1	12
23	Statistical analysis of a micro-pulsed electrical discharge in water. Journal Physics D: Applied Physics, 2020, 53, 335204.	1.3	12
24	Investigation of Hydrogen Peroxide Formation After Underwater Plasma Discharge. Plasma Chemistry and Plasma Processing, 2020, 40, 955-969.	1.1	9
25	Spectroscopic Diagnostics of Pulsed Microwave Plasmas used for Nanocrystalline Diamond Growth. Chemical Vapor Deposition, 2008, 14, 173-180.	1.4	7
26	Degradation of 4-Chlorobenzoic Acid in a Thin Falling Film Dielectric Barrier Discharge Reactor. Industrial & Engineering Chemistry Research, 2014, 53, 10387-10396.	1.8	6
27	New insights in understanding plasma-catalysis reaction pathways: study of the catalytic ozonation of an acetaldehyde saturated Ag/TiO <sub>2</sub> /SiO <sub>2</sub> catalyst. EPJ Applied Physics, 2015, 71, 20805.	0.3	6
28	Plasma-Catalysis for Volatile Organic Compounds Decomposition: Complexity of the Reaction Pathways during Acetaldehyde Removal. Catalysts, 2020, 10, 1146.	1.6	6
29	Amination of Cyclohexane by Dielectric Barrier Discharge Processing in a Continuous Flow Microreactor: Experimental and Simulation Studies. Plasma Chemistry and Plasma Processing, 2021, 41, 351-368.	1.1	6
30	Analysis of discharge regimes obtained by microsecond underwater electrical breakdown in regard to energy balance. Journal Physics D: Applied Physics, 2021, 54, 365202.	1.3	6
31	Space- and time-resolved diagnostics of microwave plasma process used for hydrogenated amorphous carbon film coating of PET bottles. Diamond and Related Materials, 2008, 17, 633-640.	1.8	3
32	Spatial and temporal evolutions of ozone in a nanosecond pulse corona discharge at atmospheric pressure. Journal Physics D: Applied Physics, 2011, 44, 415202.	1.3	3
33	Scaled-Up Nonequilibrium Air Plasmas. , 2003, , .		2
34	Investigation of Discharge Dynamics and Chemical Kinetics in Microdischarges Generated in Nanosecond Multipin-to-Plane Pulsed N <sub>2</sub> /O <sub>2</sub> Corona Systems. Plasma Processes and Polymers, 2009, 6, 347-359.	1.6	2
35	A Simplified Global Model to Describe the Oxidation of Acetylene Under Nanosecond Pulsed Discharges in a Complex Corona Reactor. Plasma Chemistry and Plasma Processing, 2014, 34, 343-359.	1.1	2
36	Microsecond Electrical Breakdown in Water: Advances Using Emission Analysis and Cavitation Bubble Theory. Molecules, 2022, 27, 662.	1.7	1