# FranÃ§ois Reniers

List of Publications by Year
in descending order



| 96 | 2,876 | 147726 | 197736 |
|---|---|---|---|
| papers | citations | 31 h-index | 49 g-index |

| 100 | 100 | 100 | 3006 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Atmospheric plasmas for thin film deposition: A critical review. Thin Solid Films, 2012, 520, 4219-4236. | 0.8 | 245 |
| 2 | Plasma-modified polymer surfaces: Characterization using XPS. Journal of Electron Spectroscopy and Related Phenomena, 2010, 178-179, 394-408. | 0.8 | 206 |
| 3 | Carbon nanotubes randomly decorated with gold clusters: from nano<sup>2</sup>hybrid atomic structures to gas sensing prototypes. Nanotechnology, 2009, 20, 375501. | 1.3 | 109 |
| 4 | Room-temperature, selective detection of benzene at trace levels using plasma-treated metal-decorated multiwalled carbon nanotubes. Carbon, 2010, 48, 3477-3484. | 5.4 | 106 |
| 5 | XPS and contact angle study of N2 and O2 plasma-modified PTFE, PVDF and PVF surfaces. Surface and Interface Analysis, 2006, 38, 526-530. | 0.8 | 76 |
| 6 | Routes to increase the conversion and the energy efficiency in the splitting of CO<sub>2</sub>by a dielectric barrier discharge. Journal Physics D: Applied Physics, 2017, 50, 084004. | 1.3 | 74 |
| 7 | How do the barrier thickness and dielectric material influence the filamentary mode and CO<sub>2</sub>conversion in a flowing DBD?. Plasma Sources Science and Technology, 2016, 25, 045016. | 1.3 | 71 |
| 8 | Gas sensing properties of multiwall carbon nanotubes decorated with rhodium nanoparticles. Sensors and Actuators B: Chemical, 2011, 160, 974-980. | 4.0 | 68 |
| 9 | Surface modification of PTFE using an atmospheric pressure plasma jet in argon and argon+CO2. Surface and Coatings Technology, 2012, 206, 2226-2232. | 2.2 | 68 |
| 10 | A Comparison of PE Surfaces Modified by Plasma Generated Neutral Nitrogen Species and Nitrogen Ions. Plasmas and Polymers, 2003, 8, 119-134. | 1.5 | 62 |
| 11 | New improvements in energy and spatial (x, y, z) resolution in AES and XPS applications. Journal of Electron Spectroscopy and Related Phenomena, 2005, 142, 1-25. | 0.8 | 60 |
| 12 | Plasmaâ€Modified PTFE for Biological Applications: Correlation between Proteinâ€Resistant Properties and Surface Characteristics. Plasma Processes and Polymers, 2008, 5, 661-671. | 1.6 | 59 |
| 13 | Poly(ethylene glycol) Films Deposited by Atmospheric Pressure Plasma Liquid Deposition and Atmospheric Pressure Plasmaâ€Enhanced Chemical Vapour Deposition: Process, Chemical Composition Analysis and Biocompatibility. Plasma Processes and Polymers, 2010, 7, 715-725. | 1.6 | 55 |
| 14 | Synthesis and characterisation of chromium carbides. Applied Surface Science, 1997, 120, 85-93. | 3.1 | 52 |
| 15 | Plasma-Catalytic Ammonia Synthesis in a DBD Plasma: Role of Microdischarges and Their Afterglows. Journal of Physical Chemistry C, 2020, 124, 22871-22883. | 1.5 | 52 |
| 16 | Etching Processes of Polytetrafluoroethylene Surfaces Exposed to He and Heâ€“O<sub>2</sub> Atmospheric Post-discharges. Langmuir, 2012, 28, 9466-9474. | 1.6 | 43 |
| 17 | Atmospheric plasma synthesized PEG coatings: non-fouling biomaterials showing protein and cell repulsion. Surface and Coatings Technology, 2014, 252, 126-133. | 2.2 | 43 |
| 18 | N-Doped TiO<sub>2</sub> Photocatalyst Coatings Synthesized by a Cold Atmospheric Plasma. Langmuir, 2019, 35, 7161-7168. | 1.6 | 43 |

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|---|---|---|---|
| 19 | Selected Effect of the Ions and the Neutrals in the Plasma Treatment of PTFE Surfaces: An OES-AFM-Contact Angle and XPS Study. Plasma Processes and Polymers, 2005, 2, 493-500. | 1.6 | 40 |
| 20 | Use of a PECVDâ€“PVD process for the deposition of copper containing organosilicon thin films on steel. Applied Surface Science, 2009, 256, S82-S85. | 3.1 | 40 |
| 21 | Challenges in the characterization of plasma polymers using XPS. Journal of Electron Spectroscopy and Related Phenomena, 2015, 200, 311-331. | 0.8 | 40 |
| 22 | Glow discharge sputtering deposition of thin films of Ag, Cr, Cu, Ni, Pd, Rh and their binary alloys onto NaCl and MgO Experimental parameters and epitaxy. Applied Surface Science, 1996, 92, 35-42. | 3.1 | 39 |
| 23 | Synthesis of Polystyrene Thin Films by Means of an Atmospheric-Pressure Plasma Torch and a Dielectric Barrier Discharge. IEEE Transactions on Plasma Science, 2009, 37, 951-960. | 0.6 | 39 |
| 24 | One Step Polymerization of Sulfonated Polystyrene Films in a Dielectric Barrier Discharge. Plasma Processes and Polymers, 2010, 7, 836-845. | 1.6 | 39 |
| 25 | DBD in burst mode: solution for more efficient CO<sub>2</sub>conversion?. Plasma Sources Science and Technology, 2016, 25, 055005. | 1.3 | 39 |
| 26 | Comparison between wet deposition and plasma deposition of silane coatings on aluminium. Progress in Organic Coatings, 2010, 69, 126-132. | 1.9 | 36 |
| 27 | Evidence of the Synergetic Role of Charged Species and Atomic Oxygen in the Molecular Etching of PTFE Surfaces for Hydrophobic Surface Synthesis. Langmuir, 2010, 26, 16503-16509. | 1.6 | 36 |
| 28 | Zero-dimensional modeling of unpacked and packed bed dielectric barrier discharges: the role of vibrational kinetics in ammonia synthesis. Plasma Sources Science and Technology, 2020, 29, 045020. | 1.3 | 36 |
| 29 | Characterisation of the silicon nitride thin films deposited by plasma magnetron. Surface and Interface Analysis, 2008, 40, 754-757. | 0.8 | 35 |
| 30 | Evaluation of the Yasuda parameter for the atmospheric plasma deposition of allyl methacrylate. RSC Advances, 2015, 5, 27449-27457. | 1.7 | 35 |
| 31 | How to increase the hydrophobicity of PTFE surfaces using an r.f. atmosphericâ€pressure plasma torch. Surface and Interface Analysis, 2010, 42, 1014-1018. | 0.8 | 33 |
| 32 | Synthesis of superhydrophobic PTFE-like thin films by self-nanostructuration in a hybrid plasma process. Surface Science, 2012, 606, 1825-1829. | 0.8 | 32 |
| 33 | Synthesis and texturization processes of (super)-hydrophobic fluorinated surfaces by atmospheric plasma. Journal of Materials Research, 2015, 30, 3177-3191. | 1.2 | 32 |
| 34 | Surface characterization of plasma-treated PTFE surfaces: an OES, XPS and contact angle study. Surface and Interface Analysis, 2004, 36, 1027-1031. | 0.8 | 31 |
| 35 | Dry reforming of methane via plasma-catalysis: influence of the catalyst nature supported on alumina in a packed-bed DBD configuration. Journal Physics D: Applied Physics, 2018, 51, 234002. | 1.3 | 31 |
| 36 | Understanding polyethylene surface functionalization by an atmospheric He/O<sub>2</sub>plasma through combined experiments and simulations. Journal Physics D: Applied Physics, 2014, 47, 224007. | 1.3 | 29 |

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|---|---|---|---|
| 37 | Plasma polymerization of C4Cl6 and C2H2Cl4 at atmospheric pressure. Polymer, 2013, 54, 4085-4092. | 1.8 | 27 |
| 38 | The Impact of Double Bonds in the APPECVD of Acrylate-Like Precursors. Plasma Processes and Polymers, 2013, 10, 857-863. | 1.6 | 27 |
| 39 | Surface Characterization of Atmospheric Pressure Plasmaâ€Deposited Allyl Methacrylate and Acrylic Acid Based Coatings. Plasma Processes and Polymers, 2013, 10, 564-571. | 1.6 | 27 |
| 40 | PTFE Surface Etching in the Postâ€discharge of a Scanning RF Plasma Torch: Evidence of Ejected Fluorinated Species. Plasma Processes and Polymers, 2012, 9, 820-829. | 1.6 | 25 |
| 41 | Deposition of photocatalytic anatase titanium dioxide films by atmospheric dielectric barrier discharge. Surface and Coatings Technology, 2017, 310, 173-179. | 2.2 | 24 |
| 42 | Low-density polyethylene films treated by an atmospheric Arâ€“O<sub>2</sub>post-discharge: functionalization, etching, degradation and partial recovery of the native wettability state. Journal Physics D: Applied Physics, 2014, 47, 065203. | 1.3 | 23 |
| 43 | NO<sub>x</sub> synthesis by atmosphericâ€pressure N<sub>2</sub>/O<sub>2</sub> filamentary DBD plasma over water: Physicochemical mechanisms of plasmaâ€“liquid interactions. Plasma Processes and Polymers, 2021, 18, 2000087. | 1.6 | 22 |
| 44 | Deposition and Characterisation of Plasma Polymerised Allyl Methacrylate Based Coatings. Plasma Processes and Polymers, 2012, 9, 799-807. | 1.6 | 21 |
| 45 | Evidence of covalent bond formation at the silaneâ€“metal interface during plasma polymerization of bis-1,2-(triethoxysilyl)ethane (BTSE) on aluminium. Chemical Physics Letters, 2010, 493, 107-112. | 1.2 | 20 |
| 46 | Chemical and Physical Effects of the Carrier Gas on the Atmospheric Pressure PECVD of Fluorinated Precursors. Plasma Processes and Polymers, 2015, 12, 1174-1185. | 1.6 | 20 |
| 47 | Chemical effects in Auger electron spectra of aluminium. Surface and Interface Analysis, 2002, 34, 356-359. | 0.8 | 19 |
| 48 | Plasma diagnostics of an Ar/NH3 direct-current reactive magnetron sputtering discharge for SiNx deposition. Thin Solid Films, 2012, 520, 6386-6392. | 0.8 | 19 |
| 49 | LDPE Surface Modifications Induced by Atmospheric Plasma Torches with Linear and Showerhead Configurations. Plasma Processes and Polymers, 2015, 12, 771-785. | 1.6 | 19 |
| 50 | Competitive and synergistic effects between excimer VUV radiation and O radicals on the etching mechanisms of polyethylene and fluoropolymer surfaces treated by an atmospheric Heâ€“O<sub>2</sub>post-discharge. Journal Physics D: Applied Physics, 2013, 46, 315203. | 1.3 | 18 |
| 51 | Inâ€depth diffusion of oxygen into LDPE exposed to an Arâ€“O<sub>2</sub> atmospheric postâ€discharge: a complementary approach between ARâ€XPS and Tofâ€SIMS techniques. Surface and Interface Analysis, 2014, 46, 164-174. | 0.8 | 18 |
| 52 | About the Influence of Double Bonds in the APPECVD of Acrylateâ€Like Precursors: A Mass Spectrometry Study of the Plasma Phase. Plasma Processes and Polymers, 2014, 11, 335-344. | 1.6 | 18 |
| 53 | Atmospheric Pressure Plasma Deposition of Hydrophilic/Phobic Patterns and Thin Film Laminates on Any Surface. Langmuir, 2019, 35, 9677-9683. | 1.6 | 17 |
| 54 | Optical and Electrical Characteristics of an Endoscopic DBD Plasma Jet. Plasma Medicine, 2020, 10, 71-90. | 0.2 | 17 |

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|---|---|---|---|
| 55 | Characterization of gold nanoclusters deposited on HOPG by atmospheric plasma treatment. Surface and Interface Analysis, 2008, 40, 566-570. | 0.8 | 16 |
| 56 | Atmospheric pressure dielectric barrier discharge synthesis of morphology-controllable TiO2 films with enhanced photocatalytic activity. Thin Solid Films, 2018, 664, 90-99. | 0.8 | 16 |
| 57 | Ready-to-Use Germanium Surfaces for the Development of FTIR-Based Biosensors for Proteins. Langmuir, 2020, 36, 12068-12076. | 1.6 | 16 |
| 58 | Preparation and characterization of epitaxial films of silver, palladium and Ag-Pd alloys deposited by glow discharge sputtering I: Onto NaCl single-crystal substrates. Thin Solid Films, 1989, 170, 41-47. | 0.8 | 15 |
| 59 | Carbon nanotubes decorated with gold, platinum and rhodium clusters by injection of colloidal solutions into the post-discharge of an RF atmospheric plasma. Nanotechnology, 2010, 21, 385603. | 1.3 | 15 |
| 60 | Plasma Polymerization of a Saturated Branched Hydrocarbon. The Case of Heptamethylnonane. Plasma Processes and Polymers, 2013, 10, 51-59. | 1.6 | 15 |
| 61 | Influence of ambient air on the flowing afterglow of an atmospheric pressure Ar/O2 radiofrequency plasma. Journal of Applied Physics, 2013, 113, 093303. | 1.1 | 14 |
| 62 | Atmospheric pressure plasma polymerization of organics: effect of the presence and position of double bonds on polymerization mechanisms, plasma stability and coating chemistry. Thin Solid Films, 2019, 671, 64-76. | 0.8 | 14 |
| 63 | Easy Synthesis of Ageing-Resistant Coatings with Tunable Wettability by Atmospheric Pressure Plasma. Plasma Chemistry and Plasma Processing, 2016, 36, 1239-1252. | 1.1 | 13 |
| 64 | Chemical and physical effect of SiO2 and TiO2 nanoparticles on highly hydrophobic fluorocarbon hybrid coatings synthesized by atmospheric plasma. Surface and Coatings Technology, 2017, 315, 274-282. | 2.2 | 13 |
| 65 | On the electrochemical adsorption of KBr on gold (100); a LEEDâ€“Auger study. Surface Science, 1999, 433-435, 12-16. | 0.8 | 12 |
| 66 | Chemical mechanisms inducing a dc current measured in the flowing post-discharge of an RF Heâ€“O<sub>2</sub>plasma torch. Plasma Sources Science and Technology, 2012, 21, 045013. | 1.3 | 12 |
| 67 | Factor analysis as a tool to deconvolute auger spectra of tungsten nitrides and carbides. Surface and Interface Analysis, 1994, 21, 483-489. | 0.8 | 11 |
| 68 | Use of matrix corrections in the calculation of surface composition of AgPd alloys in auger electron spectroscopy. Surface and Interface Analysis, 1995, 23, 374-380. | 0.8 | 11 |
| 69 | Surface composition of CuAu single crystal electrodes determined by a coupled UHVâ€“electrochemical approach and a Monte-Carlo simulation. Surface and Interface Analysis, 2004, 36, 1078-1082. | 0.8 | 10 |
| 70 | Composition and structure of reactively sputter-deposited molybdenum-carbon films. Thin Solid Films, 1996, 287, 25-31. | 0.8 | 9 |
| 71 | Chemical Analysis of Plasmaâ€treated Organic Surfaces and Plasma Polymers by Secondary Ion Mass Spectrometry. Plasma Processes and Polymers, 2015, 12, 905-918. | 1.6 | 9 |
| 72 | Robust hydrophobic gold, glass and polypropylene surfaces obtained through a nanometric covalently bound organic layer. RSC Advances, 2020, 10, 13553-13561. | 1.7 | 9 |

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|---|---|---|---|
| 73 | Enhancing the Properties of Photocatalysts via Nonthermal Plasma Modification: Recent Advances, Treatment Variables, Mechanisms, and Perspectives. Industrial & Engineering Chemistry Research, 2021, 60, 16813-16826. | 1.8 | 9 |
| 74 | Synthesis of Membraneâ€Electrode Assembly for Fuel Cells by Means of (Sub)â€Atmospheric Plasma Processes. Plasma Processes and Polymers, 2012, 9, 1144-1153. | 1.6 | 8 |
| 75 | Incorporation of corrosion inhibitor in plasma polymerized allyl methacrylate coatings and evaluation of its corrosion performance. Surface and Coatings Technology, 2014, 259, 714-724. | 2.2 | 8 |
| 76 | Gel models to assess distribution and diffusion of reactive species from cold atmospheric plasma: an overview for plasma medicine applications. Journal Physics D: Applied Physics, 2021, 54, 463001. | 1.3 | 8 |
| 77 | AES analysis of nitride layers on steel with target factor analysis. Surface and Interface Analysis, 2004, 36, 1093-1097. | 0.8 | 7 |
| 78 | Thermal Properties of Plasma Deposited Methyl Methacrylate Films in an Atmospheric DBD Reactor. Plasma Processes and Polymers, 2015, 12, 260-270. | 1.6 | 7 |
| 79 | Deposition Kinetics and Thermal Properties of Atmospheric Plasma Deposited Methacrylate-Like Films. Plasma Processes and Polymers, 2016, 13, 521-533. | 1.6 | 7 |
| 80 | UHV-liquid cell transfer system for Auger electron spectroscopy on electrodes. Surface and Interface Analysis, 2002, 34, 623-627. | 0.8 | 6 |
| 81 | Selective detection of benzene traces at room temperature using metal decorated carbon nanotubes. Procedia Engineering, 2010, 5, 385-388. | 1.2 | 6 |
| 82 | Epiâ€fluorescence Microscopy as a Tool for Relative Quantification of the Antiâ€Biofouling Character of Atmospheric Pressure Plasmaâ€Polymerized Biomaterials. Plasma Processes and Polymers, 2015, 12, 991-1001. | 1.6 | 6 |
| 83 | Fuel Cell Electrodes From Organometallic Platinum Precursors: An Easy Atmospheric Plasma Approach. Plasma Processes and Polymers, 2016, 13, 91-104. | 1.6 | 6 |
| 84 | Deposition by glow discharge sputtering of thin epitaxial films of Ibâ€“VIII alloys (AgPd, CuPd, CuRh). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1510-1515. | 0.9 | 5 |
| 85 | Study of epitaxial films of Ag, Pd and AgPd deposited by dc sputtering. Microscopy Microanalysis Microstructures, 1990, 1, 189-197. | 0.4 | 5 |
| 86 | Experimental and theoretical study of CVV Auger peaks of selected aluminium and carbon compounds. Surface and Interface Analysis, 2004, 36, 798-800. | 0.8 | 4 |
| 87 | Improving the atmospheric plasma deposition of crystalline inorganic coatings. Thin Solid Films, 2019, 688, 137437. | 0.8 | 4 |
| 88 | Energetics of reactions in a dielectric barrier discharge with argon carrier gas: VII anhydrides. Plasma Processes and Polymers, 2019, 16, 1800186. | 1.6 | 4 |
| 89 | Use of remote atmospheric mass spectrometry in atmospheric plasma polymerization of hydrophilic and hydrophobic coatings. Plasma Processes and Polymers, 2020, 17, 1900250. | 1.6 | 4 |
| 90 | Simple and Scalable Chemical Surface Patterning via Direct Deposition from Immobilized Plasma Filaments in a Dielectric Barrier Discharge. Advanced Science, 2022, 9, e2200237. | 5.6 | 4 |

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|---|---|---|---|
| 91 | Ex-situ SIMS characterization of plasma-deposited polystyrene near atmospheric pressure. Applied Surface Science, 2019, 481, 1490-1502. | 3.1 | 3 |
| 92 | Revisiting the surface characterization of plasmaâ€modified polymers. Plasma Processes and Polymers, 2022, 19, . | 1.6 | 3 |
| 93 | Auger and photoelectron relaxation energy in aluminum compounds: A cluster model. Journal of Electron Spectroscopy and Related Phenomena, 2007, 159, 1-7. | 0.8 | 2 |
| 94 | Elaboration and Characterization of CuO Thin Films by Spray Pyrolysis Method for Gas Sensors Applications. Proceedings (mdpi), 2019, 14, 55. | 0.2 | 2 |
| 95 | Tuning the wicking and wettability properties of PET textiles by DBD or a remote atmospheric RF torch: A comparison. Plasma Processes and Polymers, 2021, 18, 2100005. | 1.6 | 2 |
| 96 | Cold atmospheric plasma differentially affects cell renewal and differentiation of stem cells and APC-deficient-derived tumor cells in intestinal organoids. Cell Death Discovery, 2022, 8, 66. | 2.0 | 2 |