

Cédric Pardanaud

List of Publications by Year in descending order

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Version: 2024-02-01

65
papers

1,289
citations

393982

19
h-index

395343

33
g-index

65
all docs

65
docs citations

65
times ranked

1562
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | A Guide to and Review of the Use of Multiwavelength Raman Spectroscopy for Characterizing Defective Aromatic Carbon Solids: from Graphene to Amorphous Carbons. <i>Coatings</i> , 2017, 7, 153. | 1.2 | 272 |
| 2 | Plasma-wall interaction studies within the EUROfusion consortium: progress on plasma-facing components development and qualification. <i>Nuclear Fusion</i> , 2017, 57, 116041. | 1.6 | 75 |
| 3 | The temperature dependence of optical properties of tungsten in the visible and near-infrared domains: an experimental and theoretical study. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 455601. | 1.3 | 56 |
| 4 | Raman spectroscopy investigation of the H content of heated hard amorphous carbon layers. <i>Diamond and Related Materials</i> , 2013, 34, 100-104. | 1.8 | 51 |
| 5 | Advanced spectroscopic analyses on a:C-H materials: Revisiting the EELS characterization and its coupling with multi-wavelength Raman spectroscopy. <i>Carbon</i> , 2017, 112, 149-161. | 5.4 | 51 |
| 6 | Deuterium inventory in Tore Supra: Coupled carbon-deuterium balance. <i>Journal of Nuclear Materials</i> , 2013, 438, S120-S125. | 1.3 | 38 |
| 7 | Nuclear spin conversion of water diluted in solid argon at 4.2K: Environment and atmospheric impurities effects. <i>Chemical Physics Letters</i> , 2007, 447, 232-235. | 1.2 | 35 |
| 8 | Multiwavelength Raman spectroscopy analysis of a large sampling of disordered carbons extracted from the Tore Supra tokamak. <i>Vibrational Spectroscopy</i> , 2014, 70, 187-192. | 1.2 | 33 |
| 9 | Negative-ion production on carbon materials in hydrogen plasma: influence of the carbon hybridization state and the hydrogen content on H ⁺ yield. <i>Journal Physics D: Applied Physics</i> , 2014, 47, 085201. | 1.3 | 32 |
| 10 | Emissivity measurement of tungsten plasma facing components of the WEST tokamak. <i>Fusion Engineering and Design</i> , 2019, 149, 111328. | 1.0 | 32 |
| 11 | Nuclear spin conversion of H ₂ O trapped in solid xenon at 4.2K: A new assignment of $\hat{1}/2$ rovibrational lines. <i>Chemical Physics Letters</i> , 2009, 480, 82-85. | 1.2 | 29 |
| 12 | Observation of nuclear spin species conversion inside the 1593cm ⁻¹ structure of H ₂ O trapped in argon matrices: Nitrogen impurities and the H ₂ O:N ₂ complex. <i>Journal of Molecular Structure</i> , 2008, 873, 181-190. | 1.8 | 24 |
| 13 | Enhanced negative ion yields on diamond surfaces at elevated temperatures. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 372002. | 1.3 | 23 |
| 14 | Analysis of carbon deposited layer growth processes in Tore Supra. <i>Journal of Nuclear Materials</i> , 2009, 390-391, 49-52. | 1.3 | 20 |
| 15 | Analyses of dust samples collected in the MAST tokamak. <i>Journal of Nuclear Materials</i> , 2010, 401, 130-137. | 1.3 | 20 |
| 16 | Characterization and origin of large size dust particles produced in the Alcator C-Mod tokamak. <i>Nuclear Materials and Energy</i> , 2017, 11, 12-19. | 0.6 | 20 |
| 17 | Identification of BeO and BeOxDy in melted zones of the JET Be limiter tiles: Raman study using comparison with laboratory samples. <i>Nuclear Materials and Energy</i> , 2018, 17, 295-301. | 0.6 | 20 |
| 18 | Characterization of temperature-induced changes in amorphous hydrogenated carbon thin films. <i>Diamond and Related Materials</i> , 2013, 37, 97-103. | 1.8 | 19 |

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|----|---|-----|-----------|
| 19 | Thermal stability and long term hydrogen/deuterium release from soft to hard amorphous carbon layers analyzed using in-situ Raman spectroscopy. Comparison with Tore Supra deposits. Thin Solid Films, 2015, 581, 92-98. | 0.8 | 19 |
| 20 | Investigating the Possible Origin of Raman Bands in Defective sp ² /sp ³ Carbons below 900 cm ⁻¹ : Phonon Density of States or Double Resonance Mechanism at Play?. Journal of Carbon Research, 2019, 5, 79. | 1.4 | 19 |
| 21 | Time evolution of the $\hat{1}/2$ IR absorption of (o-H ₂) _n :H ₂ O clusters (n=11 \hat{e} 1), and increase of H ₂ O rotation, in O ₂ doped solid hydrogen at 4.2K. Chemical Physics Letters, 2008, 454, 61-64. | 1.2 | 18 |
| 22 | Deuterium Inventory in Tore Supra: status of post-mortem analyses. Physica Scripta, 2009, T138, 014027. | 1.2 | 18 |
| 23 | Raman study of CFC tiles extracted from the toroidal pump limiter of Tore Supra. Journal of Nuclear Materials, 2011, 415, S254-S257. | 1.3 | 16 |
| 24 | Deuterium Inventory in Tore Supra (DITS): 2nd post-mortem analysis campaign and fuel retention in the gaps. Journal of Nuclear Materials, 2011, 415, S757-S760. | 1.3 | 16 |
| 25 | <i>In-situ</i> characterisation of the dynamics of a growing dust particle cloud in a direct-current argon glow discharge. Journal Physics D: Applied Physics, 2016, 49, 045203. | 1.3 | 16 |
| 26 | Formation of thin tungsten oxide layers: characterization and exposure to deuterium. Physica Scripta, 2016, T167, 014036. | 1.2 | 16 |
| 27 | Raman micro-spectroscopy as a tool to measure the absorption coefficient and the erosion rate of hydrogenated amorphous carbon films heat-treated under hydrogen bombardment. Diamond and Related Materials, 2012, 22, 92-95. | 1.8 | 15 |
| 28 | Hydrogen retention in beryllium: concentration effect and nanocrystalline growth. Journal of Physics Condensed Matter, 2015, 27, 475401. | 0.7 | 15 |
| 29 | The effect of beryllium oxide on retention in JET ITER-like wall tiles. Nuclear Materials and Energy, 2019, 19, 346-351. | 0.6 | 15 |
| 30 | Raman microscopy investigation of beryllium materials. Physica Scripta, 2016, T167, 014027. | 1.2 | 14 |
| 31 | Theoretical investigation on the point defect formation energies in beryllium and comparison with experiments. Nuclear Materials and Energy, 2017, 12, 453-457. | 0.6 | 14 |
| 32 | Simulation of the time dependent infrared $\hat{1}/2$ mode absorptions of (oH ₂) _n :H ₂ O clusters in O ₂ doped solid hydrogen at 4.2K. Journal of Chemical Physics, 2009, 130, 054503. | 1.2 | 13 |
| 33 | Structure of the carbon layers deposited on the toroidal pump limiter of Tore Supra. Journal of Nuclear Materials, 2011, 415, S258-S261. | 1.3 | 13 |
| 34 | Erosion \hat{e} deposition mapping of the toroidal pump limiter of Tore Supra. Journal of Nuclear Materials, 2013, 438, S771-S774. | 1.3 | 13 |
| 35 | Long-term H-release of hard and intermediate between hard and soft amorphous carbon evidenced by in situ Raman microscopy under isothermal heating. Diamond and Related Materials, 2013, 37, 92-96. | 1.8 | 12 |
| 36 | Modelling of the micrometric erosion pattern observed on the Tore Supra limiter tiles. Nuclear Fusion, 2014, 54, 123006. | 1.6 | 12 |

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|----|---|-----|-----------|
| 37 | In-plane and out-of-plane defects of graphite bombarded by H, D and He investigated by atomic force and Raman microscopies. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 256-265. | 1.2 | 12 |
| 38 | Effect of composition and surface characteristics on fuel retention in beryllium-containing co-deposited layers. <i>Physica Scripta</i> , 2020, T171, 014038. | 1.2 | 12 |
| 39 | Tungsten oxide thin film exposed to low energy He plasma: Evidence for a thermal enhancement of the erosion yield. <i>Journal of Nuclear Materials</i> , 2017, 484, 91-97. | 1.3 | 11 |
| 40 | Structural analysis of eroded carbon fiber composite tiles of Tore Supra: insights on ion transport and erosion parameters. <i>Physica Scripta</i> , 2011, T145, 014024. | 1.2 | 10 |
| 41 | Organic multishell isostructural host-guest crystals: fullerenes C ₆₀ inside a nitroxide open framework. <i>Chemical Communications</i> , 2013, 49, 3519. | 2.2 | 10 |
| 42 | Preparing the future post-mortem analysis of beryllium-based JET and ITER samples by multi-wavelengths Raman spectroscopy on implanted Be, and co-deposited Be. <i>Nuclear Fusion</i> , 2017, 57, 076035. | 1.6 | 10 |
| 43 | Post-mortem analysis of tungsten plasma facing components in tokamaks: Raman microscopy measurements on compact, porous oxide and nitride films and nanoparticles. <i>Nuclear Fusion</i> , 2020, 60, 086004. | 1.6 | 10 |
| 44 | Plasma-wall interaction studies in W7-X: main results from the recent divertor operations. <i>Physica Scripta</i> , 2021, 96, 124059. | 1.2 | 10 |
| 45 | Hydrogen in beryllium oxide investigated by DFT: on the relative stability of charged-state atomic versus molecular hydrogen. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 305201. | 0.7 | 8 |
| 46 | Adsorption of Rhodamine 6G on SiO ₂ and Ag@SiO ₂ Porous Solids: Coupling Thermodynamics and Raman Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 15308-15314. | 1.5 | 7 |
| 47 | Tungsten oxide thin film bombarded with a low energy He ion beam: evidence for a reduced erosion and W enrichment. <i>Physica Scripta</i> , 2017, T170, 014019. | 1.2 | 7 |
| 48 | Influence of magnetic field strength on nanoparticle growth in a capacitively-coupled radio-frequency Ar/C ₂ H ₂ discharge. <i>Plasma Research Express</i> , 2019, 1, 015012. | 0.4 | 7 |
| 49 | Simultaneous deuterium implantation and ion beam microanalyses in CFC NB31: Understanding the in-bulk migration. <i>Journal of Nuclear Materials</i> , 2013, 438, S975-S978. | 1.3 | 6 |
| 50 | Observation of methane nuclear spin isomers in gas phase at low temperature. <i>Journal of Molecular Spectroscopy</i> , 2012, 279, 37-43. | 0.4 | 5 |
| 51 | Raman microscopy as a defect microprobe for hydrogen bonding characterization in materials used in fusion applications. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2015, 12, 98-101. | 0.8 | 5 |
| 52 | The role of defects, deuterium, and surface morphology on the optical response of beryllium. <i>Nuclear Fusion</i> , 0, , . | 1.6 | 5 |
| 53 | Contribution to a better evaluation of the dust speciation in case of an accident in ITER. <i>Fusion Engineering and Design</i> , 2017, 124, 1171-1176. | 1.0 | 4 |
| 54 | Forming Weakly Interacting Multilayers of Graphene Using Atomic Force Microscope Tip Scanning and Evidence of Competition between Inner and Outer Raman Scattering Processes Piloted by Structural Defects. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3571-3579. | 2.1 | 4 |

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|----|--|-----|-----------|
| 55 | Enhancing surface production of negative ions using nitrogen doped diamond in a deuterium plasma. Journal Physics D: Applied Physics, 2020, 53, 465204. | 1.3 | 4 |
| 56 | Multi-technique coupling for analysis of deuterium retention in carbon fiber composite NB31. Journal of Materials Science, 2015, 50, 7031-7042. | 1.7 | 3 |
| 57 | Formation of cyanide compounds during preparation of gold surfaces evidenced by surface-enhanced Raman spectroscopy. Journal of Raman Spectroscopy, 2018, 49, 1184-1189. | 1.2 | 3 |
| 58 | Single-crystal and polycrystalline diamond erosion studies in Pilot-PSI. Journal of Nuclear Materials, 2018, 500, 110-118. | 1.3 | 3 |
| 59 | Detection of Rhodamine 6G at low concentrations using Raman Spectroscopy: A comparison between Ag and Au-based nanoporous substrates. European Physical Journal: Special Topics, 2015, 224, 2001-2010. | 1.2 | 2 |
| 60 | Raman Microscopy: A Suitable Tool for Characterizing Surfaces in Interaction with Plasmas in the Field of Nuclear Fusion. , 2017, , . | | 2 |
| 61 | Spectral fluctuation in SERS spectra of benzodiazepin molecules: The case of oxazepam. Journal of Raman Spectroscopy, 2020, 51, 2192-2198. | 1.2 | 2 |
| 62 | D retention and material defects probed using Raman microscopy in JET limiter samples and beryllium-based synthesized samples. Physica Scripta, 2021, 96, 124031. | 1.2 | 2 |
| 63 | Spectroscopic Measurements of Methane Solid-Gas Equilibrium Clapeyron Curve between 40 and 77 K. Journal of Physical Chemistry A, 2019, 123, 3518-3534. | 1.1 | 1 |
| 64 | Comparison of Nanoparticles Collected in the MAST Tokamak with Those Produced in Laboratory Plasmas. , 2011, , . | | 0 |
| 65 | Plasma growth processes inside gaps of the castellated limiter of the Tore Supra tokamak. EPJ Applied Physics, 2011, 56, 24027. | 0.3 | 0 |