

James P Sullivan

List of Publications by Year in descending order

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112
papers

2,709
citations

172386

29
h-index

197736

49
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114
all docs

114
docs citations

114
times ranked

1619
citing authors

#	ARTICLE	IF	CITATIONS
1	Ending Aging in Super Glassy Polymer Membranes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5322-5326.	7.2	275
2	Vibrational-Resonance Enhancement of Positron Annihilation in Molecules. <i>Physical Review Letters</i> , 2002, 88, 043201.	2.9	110
3	Radiation tolerance of two-dimensional material-based devices for space applications. <i>Nature Communications</i> , 2019, 10, 1202.	5.8	91
4	Single electron tracks in water vapour for energies below 100eV. <i>International Journal of Mass Spectrometry</i> , 2008, 277, 175-179.	0.7	90
5	Positron scattering from atoms and molecules using a magnetized beam. <i>Physical Review A</i> , 2002, 66, .	1.0	88
6	Forward angle scattering effects in the measurement of total cross sections for positron scattering. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2011, 44, 035201.	0.6	86
7	A positron trap and beam apparatus for atomic and molecular scattering experiments. <i>Review of Scientific Instruments</i> , 2008, 79, 113105.	0.6	82
8	Excitation of Molecular Vibrations by Positron Impact. <i>Physical Review Letters</i> , 2001, 86, 1494-1497.	2.9	76
9	Ionization and positronium formation in noble gases. <i>Physical Review A</i> , 2005, 71, .	1.0	74
10	Absolute elastic cross-sections for low-energy electron scattering from tetrahydrofuran. <i>New Journal of Physics</i> , 2007, 9, 41-41.	1.2	74
11	Excitation of Electronic States of Ar, H ₂ , and N ₂ by Positron Impact. <i>Physical Review Letters</i> , 2001, 87, 073201.	2.9	70
12	Elastic electron scattering from argon at low incident energies. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1996, 29, 3177-3195.	0.6	66
13	Positron scattering from neon and argon. <i>Physical Review A</i> , 2011, 83, .	1.0	65
14	Total and positronium formation cross sections for positron scattering from H ₂ O and HCOOH. <i>New Journal of Physics</i> , 2009, 11, 103036.	1.2	63
15	High-resolution, low-energy positron scattering from helium: measurements of the total scattering cross section. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 081001.	0.6	57
16	Low-energy elastic electron interactions with pyrimidine. <i>Physical Review A</i> , 2011, 84, .	1.0	53
17	Total, elastic, and inelastic cross sections for positron and electron collisions with tetrahydrofuran. <i>Journal of Chemical Physics</i> , 2013, 138, 074301.	1.2	52
18	Low-energy electron and positron transport in gases and soft-condensed systems of biological relevance. <i>Applied Radiation and Isotopes</i> , 2014, 83, 77-85.	0.7	51

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19	Scattering data for modelling positron tracks in gaseous and liquid water. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 145001.	0.6	47
20	Search for resonances in the scattering of low-energy positrons from atoms and molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, L467-L474.	0.6	45
21	Low energy positron scattering and annihilation studies using a high resolution trap-based beam. Nuclear Instruments & Methods in Physics Research B, 2002, 192, 3-16.	0.6	41
22	Low-energy electron scattering from O ₂ . Journal of Physics B: Atomic, Molecular and Optical Physics, 1995, 28, 4319-4328.	0.6	39
23	Double Photoexcitation of Helium in a Strong dc Electric Field. Physical Review Letters, 2003, 90, 133002.	2.9	39
24	Low-energy positron interactions with krypton. Physical Review A, 2011, 83, .	1.0	39
25	High-resolution positron scattering from helium: Grand total and positronium-formation cross sections. Physical Review A, 2009, 80, .	1.0	35
26	Leaching properties of chromate-containing epoxy films using radiotracers, PALS and SEM. Progress in Organic Coatings, 2014, 77, 257-267.	1.9	35
27	Elastic electron scattering from formic acid (HCOOH): absolute differential cross-sections. New Journal of Physics, 2006, 8, 85-85.	1.2	34
28	Positron interactions with water—total elastic, total inelastic, and elastic differential cross section measurements. Journal of Chemical Physics, 2014, 140, 044320.	1.2	32
29	Positron scattering from molecular hydrogen. Physical Review A, 2013, 88, .	1.0	30
30	Positron scattering from pyrimidine. Physical Review A, 2013, 88, .	1.0	28
31	Nano-porosity in GaSb induced by swift heavy ion irradiation. Applied Physics Letters, 2014, 104, .	1.5	27
32	Low-energy positron interactions with xenon. New Journal of Physics, 2011, 13, 125004.	1.2	26
33	An experimental and theoretical study of transient negative ions in Mg, Zn, Cd and Hg. New Journal of Physics, 2003, 5, 159-159.	1.2	25
34	Experimental studies of the interaction of low energy positrons with atoms and molecules. Nuclear Instruments & Methods in Physics Research B, 2004, 221, 84-92.	0.6	25
35	Low-energy positron scattering from atoms and molecules using positron accumulation techniques. Nuclear Instruments & Methods in Physics Research B, 2000, 171, 81-95.	0.6	24
36	Observation of Threshold Effects in Positron Scattering from the Noble Gases. Physical Review Letters, 2010, 105, 073201.	2.9	24

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37	A trap-based positron beamline for the study of materials. Measurement Science and Technology, 2010, 21, 085702.	1.4	23
38	Low energy positron interactions with uracil—Total scattering, positronium formation, and differential elastic scattering cross sections. Journal of Chemical Physics, 2014, 141, 034306.	1.2	23
39	Excitation of the $n=2$ states of helium by positron impact. Physical Review A, 2009, 80, .	1.0	22
40	Roadmap on photonic, electronic and atomic collision physics: II. Electron and antimatter interactions. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 171002.	0.6	22
41	Elastic electron scattering from 3-hydroxytetrahydrofuran: experimental and theoretical studies. New Journal of Physics, 2008, 10, 053002.	1.2	21
42	Modelling single positron tracks in Ar. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 045207.	0.6	21
43	Experimental and theoretical cross sections for positron collisions with 3-hydroxy-tetrahydrofuran. Journal of Chemical Physics, 2013, 138, 074302.	1.2	20
44	Electron scattering from pyrazine: Elastic differential and integral cross sections. Journal of Chemical Physics, 2012, 137, 204307.	1.2	19
45	Enhanced Magnetization of Cobalt Defect Clusters Embedded in TiO ₂ Films. ACS Applied Materials & Interfaces, 2017, 9, 8783-8795.	4.0	19
46	Benchmark measurements and theory for electron(positron)–molecule(atom) scattering. Nuclear Instruments & Methods in Physics Research B, 2006, 247, 5-12.	0.6	18
47	Regularities in positronium formation for atoms and molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 064003.	0.6	18
48	A joint theoretical and experimental study for elastic electron scattering from 1,4-dioxane. Journal of Chemical Physics, 2013, 139, 014308.	1.2	17
49	Molecular pore size characterization within chitosan biopolymer using positron annihilation lifetime spectroscopy. Materials Letters, 2010, 64, 2635-2637.	1.3	16
50	Leaching behaviour of and Cs disposition in a UMo powellite glass–ceramic. Journal of Nuclear Materials, 2014, 448, 325-329.	1.3	16
51	Effect of W self-implantation and He plasma exposure on early-stage defect and bubble formation in tungsten. Nuclear Fusion, 2018, 58, 066010.	1.6	15
52	Role of Negative Ion Resonances in Electron Scattering from Atoms and Molecules. Australian Journal of Physics, 1999, 52, 473.	0.6	14
53	Spatial profiles of positrons injected at low energies into water: influence of cross section models. Plasma Sources Science and Technology, 2017, 26, 045010.	1.3	14
54	Search for positron quasibound states in the doubly excited region of the helium atom. Physical Review A, 2012, 86, .	1.0	13

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55	Role of F on the Electrical Activation of As in Ge. ECS Journal of Solid State Science and Technology, 2012, 1, Q44-Q46.	0.9	12
56	Cross sections for elastic scattering of electrons by CF ₃ Cl, CF ₂ Cl ₂ , and CFCl ₃ . Journal of Chemical Physics, 2013, 138, 214305.	1.2	12
57	Positron scattering from pyridine. Journal of Chemical Physics, 2018, 148, 144308.	1.2	12
58	Doubly excited states of helium observed in N- and I-specific partial photoionization cross-sections using lifetime-resolved fluorescence spectroscopy. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, L319-L326.	0.6	11
59	Defect complexes in fluorine-implanted germanium. Journal Physics D: Applied Physics, 2013, 46, 505310.	1.3	11
60	Positron Scattering and Annihilation Studies Using a Trap-Based Beam. Physica Scripta, 2004, 110, 280.	1.2	10
61	Near-Threshold Ionization of Argon by Positron Impact. Physical Review Letters, 2018, 120, 113401.	2.9	10
62	Long-lived, highly excited neutral hydrogen atom production following oxygen 1s photoexcitation of gas-phase water molecules. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 095101.	0.6	9
63	Data for modeling of positron collisions and transport in gases. AIP Conference Proceedings, 2013, , .	0.3	8
64	The '5.2 eV resonance' in electron scattering from Hg. Journal of Physics B: Atomic, Molecular and Optical Physics, 1998, 31, L1009-L1015.	0.6	7
65	Experimental determination of the lifetimes of the 2(1, 0) and 2pnd(1Po) doubly excited states of helium by detection of VUV fluorescence. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, L169-L173.	0.6	7
66	Partial photoionization of helium into the 2s2S and 2p2P ion states in the 3lnl ² doubly-excited states region. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, L153-L160.	0.6	7
67	High resolution positron interactions. Journal of Physics: Conference Series, 2009, 194, 012033.	0.3	7
68	Kinematically complete experiments for positron-impact ionization of helium atoms at the NEPOMUC facility. Journal of Physics: Conference Series, 2011, 262, 012047.	0.3	7
69	Positron scattering from pyrazine. Physical Review A, 2021, 104, .	1.0	7
70	Investigations into the free-volume changes within starch/plasticizer/nanoclay systems using Positron Annihilation Lifetime Spectroscopy. Materials Chemistry and Physics, 2014, 148, 349-355.	2.0	6
71	Low energy positron scattering from helium. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 384-387.	0.6	5
72	Low energy lepton scattering: recent results for electron and positron interactions. Journal of Physics: Conference Series, 2008, 133, 012001.	0.3	5

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73	A reaction microscope for positron μ^+ atom ionisation studies. Journal of Physics: Conference Series, 2009, 194, 072002.	0.3	5
74	The interaction in sorbitol-plasticized starch bionanocomposites via positron annihilation lifetime spectroscopy and small angle X-ray scattering. Carbohydrate Polymers, 2012, 88, 1172-1176.	5.1	5
75	Low-energy elastic and inelastic scattering of positrons from argon. Physical Review A, 2016, 93, .	1.0	5
76	Positron annihilation lifetime study of radiation-damaged natural zircons. Journal of Nuclear Materials, 2016, 471, 44-50.	1.3	5
77	A pulsed positronium beam using a positron buffer gas trap. Review of Scientific Instruments, 2021, 91, 033311.	0.6	5
78	Low energy positron interactions - trapping, transport and scattering. Journal of Physics: Conference Series, 2009, 162, 012002.	0.3	4
79	Low energy positron scattering from helium. Journal of Physics: Conference Series, 2008, 133, 012004.	0.3	3
80	A Cryogenic, High-field Trap for Large Positron Plasmas and Cold Beams. AIP Conference Proceedings, 2003, , .	0.3	2
81	Recent progress in electron scattering from atoms and molecules. , 2014, , .		2
82	Kinetic Phenomena in Transport of Electrons and Positrons in Gases caused by the Properties of Scattering Cross Sections. Journal of Physics: Conference Series, 2014, 488, 012047.	0.3	2
83	Threshold effects in positron scattering from isoelectronic series of atoms and molecules. Physical Review A, 2014, 90, .	1.0	2
84	Advances in positron and electron scattering*. European Physical Journal D, 2016, 70, 1.	0.6	2
85	A new technique for measuring positron impact direct ionisation. European Physical Journal D, 2017, 71, 1.	0.6	2
86	Measurement of total electron scattering cross-section of N_2O at intermediate energy region using a new magnetized electron beam apparatus. Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 195201.	0.6	2
87	Elastic scattering and electronic excitation in positron interactions with neon. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 065204.	0.6	2
88	Positron and Electron Interactions and Transport in Biological Media. Biological and Medical Physics Series, 2012, , 227-238.	0.3	2
89	Low-energy positron-matter interactions using trap-based beams. AIP Conference Proceedings, 2002, , .	0.3	1
90	Scattering and Annihilation Experiments Using a Trap-Based Beam. Materials Science Forum, 2004, 445-446, 435-439.	0.3	1

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91	Positron scattering from noble gases future prospects. Journal of Physics: Conference Series, 2009, 194, 072012.	0.3	1
92	Simulations of pulses in a buffer gas positron trap. Journal of Physics: Conference Series, 2011, 262, 012057.	0.3	1
93	Low energy positron interactions with rare gas atoms: threshold features and benchmark cross sections. Journal of Physics: Conference Series, 2011, 262, 012056.	0.3	1
94	Comment on "Semiempirical potentials for positron scattering by atoms". Physical Review A, 2012, 85, .	1.0	1
95	Probing electron correlation through radiative lifetime measurements upon inner-valence photoionization of Ne and Ar. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 145002.	0.6	1
96	Recent studies with electrons, positrons and positronium. European Physical Journal D, 2020, 74, 1.	0.6	1
97	A comparison of experimental and theoretical low energy positron scattering from furan. Journal of Chemical Physics, 2020, 153, 244303.	1.2	1
98	Photoionization of He in the 3Inl^2 doubly-excited state energy region: angular distribution of the fluorescence from the residual ion $\text{He}^+(2p)2P$. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 4819-4824.	0.6	0
99	Positron interactions and transport in biologically relevant molecules. Journal of Physics: Conference Series, 2009, 194, 072010.	0.3	0
100	Low energy positron interactions with helium. Journal of Physics: Conference Series, 2009, 194, 072005.	0.3	0
101	Characterisation of metakaolin-based geopolymers using beam-based and conventional PALS. Journal of Physics: Conference Series, 2011, 262, 012023.	0.3	0
102	Low energy positron scattering from krypton and xenon. Journal of Physics: Conference Series, 2012, 388, 072021.	0.3	0
103	Magnetic field-free measurements of the total cross sections for positron-neon and positron-argon scattering. Journal of Physics: Conference Series, 2012, 388, 072001.	0.3	0
104	A Search for Wigner Cusps and Resonances in Positron Scattering by Atoms and Molecules. Journal of Physics: Conference Series, 2012, 388, 072012.	0.3	0
105	Trends in Positron Scattering from Biomolecules. Journal of Physics: Conference Series, 2012, 388, 072013.	0.3	0
106	Low-energy positron and electron scattering from tetrahydrofuran and 3-hydroxy-tetrahydrofuran. Journal of Physics: Conference Series, 2014, 488, 072007.	0.3	0
107	Positron scattering from Biomolecules. Journal of Physics: Conference Series, 2015, 635, 072038.	0.3	0
108	Editorial: Steve Buckman "40 years of pushing leptons uphill". European Physical Journal D, 2016, 70, 1.	0.6	0

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109	Elastic and inelastic scattering of positrons from neon. Journal of Physics: Conference Series, 2020, 1412, 222003.	0.3	0
110	New magnetized electron beam apparatus and measurement of total electron scattering cross section of N ₂ O at intermediate energy region. Journal of Physics: Conference Series, 2020, 1412, 182014.	0.3	0
111	IONIZATION AND POSITRONIUM FORMATION IN NOBLE GASES. , 2006, , .		0
112	Low energy electron scattering from pyridine using a Surko trap and beam. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 235202.	0.6	0