

# James Tobin

## List of Publications by Year in descending order

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141  
papers

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136885

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docs citations

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times ranked

1657  
citing authors

#	ARTICLE	IF	CITATIONS
1	Unoccupied electronic structure of actinide dioxides. <i>Physical Review B</i> , 2022, 105, .	1.1	9
2	Thorium model and weak 5f delocalization. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 033205.	0.9	0
3	An empirical analysis of $\hat{\pm}$ -U Bremsstrahlung Isochromat Spectroscopy. <i>MRS Advances</i> , 2022, 7, 783-788.	0.5	3
4	The X-ray emission of cerium oxide. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2021, 246, 147007.	0.8	8
5	U M subshell X-ray emission spectroscopy of uranium dioxide: the effect of excitation energy. <i>MRS Advances</i> , 2021, 6, 209-212.	0.5	1
6	The Limitations of 5f Delocalization and Dispersion. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3882.	1.3	6
7	Underlying simplicity of 5f unoccupied electronic structure. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	7
8	Limitations in the structural determination of a close-packed overlayer. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, 063203.	0.9	0
9	Comment on "Underlying simplicity of 5f unoccupied electronic structure" [J. Vac. Sci. Technol. A 39, 043205 (2021)]. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	3
10	Towards the Quantification of 5f Delocalization. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2918.	1.3	11
11	Application of FEFf analyses to actinide 5f systems. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	0.9	17
12	Workshop on Recent Advances in the X-ray Spectroscopy of the Actinides. <i>Synchrotron Radiation News</i> , 2020, 33, 48-49.	0.2	0
13	Probing U 5f Covalency in Uranium Compounds through Oxidant 2p Bonding. <i>Journal of the Physical Society of Japan</i> , 2020, 89, 024711.	0.7	8
14	Observation of 5f intermediate coupling in uranium x-ray emission spectroscopy. <i>Journal of Physics Communications</i> , 2020, 4, 015013.	0.5	19
15	5f states with spin-orbit and crystal field splittings. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2019, 37, 031201.	0.9	5
16	Separate measurement of the 5f <sub>5/2</sub> and 5f <sub>7/2</sub> unoccupied density of states of UO <sub>2</sub> . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2019, 232, 100-104.	0.8	19
17	Oxidant K edge x-ray emission spectroscopy of UF <sub>4</sub> and UO <sub>2</sub> . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, 03E101.	0.9	1
18	Probing covalency with oxidant K edge x-ray absorption spectroscopy of UF <sub>4</sub> and UO <sub>2</sub> . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, 061403.	0.9	1

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19	The Issue of Pu 5f Occupation. MRS Advances, 2018, 3, 3149-3154.	0.5	5
20	Surface degradation of uranium tetrafluoride. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	11
21	Probing $5f$ configurations in $U$ $\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}\text{ }<\text{mml:mrow}>\text{ }<\text{mml:mn}>5</\text{mml:mn}>\text{ }<\text{mml:mi}>f</\text{mml:mi}></\text{mml:mrow}></\text{mml:math}>$ $\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}\text{ }<\text{mml:mrow}>\text{ }<\text{mml:msub}>\text{ }<\text{mml:mi}>URu</\text{mml:mi}><\text{mml:mn}>2</\text{mml:mn}></\text{mml:mrow}></\text{mml:math}>$ $\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}\text{ }<\text{mml:msub}>\text{ }<\text{mml:mi}>L</\text{mml:mi}><\text{mml:mtext}>ll</\text{mml:mtext}></\text{mml:msub}></\text{mml:math}>$	1.1	25
22	Covalency in oxidized uranium. Physical Review B, 2015, 92, .	1.1	21
23	Pressure-induced structural phase transition in CeNi: X-ray and neutron scattering studies and first-principles calculations. Physical Review B, 2015, 92, .	1.1	3
24	Oxidation and crystal field effects in uranium. Physical Review B, 2015, 92, .	1.1	43
25	EXAFS investigation of UF <sub>4</sub> . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, .	0.9	12
26	Splittings, Satellites and Fine Structure in the Soft X-ray Spectroscopy of the Actinides. Topics in Catalysis, 2013, 56, 1104-1111.	1.3	14
27	Direct comparison of spectroscopic data with cluster calculations of plutonium dioxide and uranium dioxide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	3
28	Pre-eminence of the Indirect Channel in the Resonant Inverse Photoelectron Spectroscopy of Cerium Oxide. Materials Research Society Symposia Proceedings, 2012, 1444, 289.	0.1	0
29	Energy calibrations in the x-ray absorption spectroscopy of uranium dioxide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	0.9	12
30	Observation of strong resonant behavior in the inverse photoelectron spectroscopy of Ce oxide. Physical Review B, 2011, 83, .	1.1	17
31	origin of the insulating state in uranium dioxide: X-ray absorption experiments and first-principles calculations. Physical Review B, 2011, 83, .	1.1	79
32	Orbital Specificity in the Unoccupied States of $UO_2$ from Resonant Inverse Photoelectron Spectroscopy. Physical Review Letters, 2011, 107, 167406.	2.9	42
33	Direct comparison of the x-ray emission and absorption of cerium oxide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, 031504.	0.9	3
34	Confirmation of sample quality: X-ray and ultraviolet photoelectron spectroscopies of uranium dioxide. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	0.9	14
35	An instrument for the investigation of actinides with spin resolved photoelectron spectroscopy and bremsstrahlung isochromat spectroscopy. Review of Scientific Instruments, 2011, 82, 093903.	0.6	16
36	Narrowing the range of possible solutions to the Pu electronic structure problem: Developing a new Bremsstrahlung Isochromat Spectroscopy capability. IOP Conference Series: Materials Science and Engineering, 2010, 9, 012054.	0.3	7

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37	Investigations of magnetic overlayers at the Advanced Photon Source. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 697-701.	0.9	2
38	Isolation of exchange- and spin-orbit-driven effects via manipulation of the axis of quantization. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 1371-1376.	0.9	0
39	The Utilization of Spin Polarized Photoelectron Spectroscopy as a Probe of Electron Correlation with an Ultimate Goal of Pu. Materials Research Society Symposia Proceedings, 2008, 1104, 1.	0.1	0
40	An alternative model for electron correlation in Pu. Journal of Physics Condensed Matter, 2008, 20, 422202.	0.7	17
41	On the electronic configuration in Pu: spectroscopy and theory. Journal of Physics Condensed Matter, 2008, 20, 125204.	0.7	41
42	Soft X-ray Studies of Pu Electronic Structure: Past Lessons and Future Directions. Materials Research Society Symposia Proceedings, 2008, 1104, 1.	0.1	0
43	Breakdown of spatial inversion symmetry in core-level photoemission of Pt(001). Physical Review B, 2008, 77, .	1.1	8
44	Spin resolved photoelectron spectroscopy of Fe <sub>3</sub> O <sub>4</sub> : the case against half-metallicity. Journal of Physics Condensed Matter, 2007, 19, 315218.	0.7	67
45	Evidence of dynamical spin shielding in Ce from spin-resolved photoelectron spectroscopy. Europhysics Letters, 2007, 77, 17004.	0.7	19
46	Spectroscopic Signature of Aging in $\hat{\gamma}$ -Pu(Ga). Journal of the Physical Society of Japan, 2006, 75, 054710.	0.7	9
47	Probing the population of the spin-orbit split levels in the actinide 5f states. Ultramicroscopy, 2006, 106, 261-268.	0.8	10
48	Spin-polarized electron energy loss spectroscopy on Fe(100) thin films grown on Ag(100). Journal of Physics Condensed Matter, 2006, 18, 8829-8836.	0.7	6
49	On the electronic configuration in Pu. Materials Research Society Symposia Proceedings, 2006, 986, 1.	0.1	0
50	Facilities for the Performance of Fano Effect Measurements as a Probe of Electron Correlation. Materials Research Society Symposia Proceedings, 2006, 986, 1.	0.1	0
51	f-electron correlations in nonmagnetic Ce studied by means of spin-resolved resonant photoemission. Physical Review B, 2006, 73, .	1.1	15
52	Using Nano-focussed Bremsstrahlung Isochromat Spectroscopy (nBIS) to Determine the Unoccupied Electronic Structure of Pu. Materials Research Society Symposia Proceedings, 2005, 893, 1.	0.1	0
53	Spectroscopic Signature of Aging in $\hat{\gamma}$ -Pu(Ga). Materials Research Society Symposia Proceedings, 2005, 893, 1.	0.1	1
54	Competition between delocalization and spin-orbit splitting in the actinide 5f states. Physical Review B, 2005, 72, .	1.1	84

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55	Experimental Benchmarking of Pu Electronic Structure. Materials Research Society Symposia Proceedings, 2005, 893, 1.	0.1	0
56	Applicability of the Spin-Orbit Sum Rule for the Actinide 5f States. Physical Review Letters, 2004, 93, 097401.	2.9	156
57	Instrument for the investigation of the nanostructure of Pu and other actinides. Review of Scientific Instruments, 2004, 75, 713-718.	0.6	4
58	Anomalous thickness dispersion of unoccupied states in the Cu/Ni/Cu(100) metallic quantum well system. Physica Status Solidi (B): Basic Research, 2004, 241, 2358-2362.	0.7	4
59	Electron-energy-loss spectroscopy and X-ray absorption spectroscopy as complementary probes for complex f-electron metals: cerium and plutonium. Philosophical Magazine, 2004, 84, 1039-1056.	0.7	26
60	Changes in the electronic structure of cerium due to variations in close packing. Physical Review B, 2004, 69, .	1.1	34
61	Photoelectron and X-ray Absorption Spectroscopy of Pu. Materials Research Society Symposia Proceedings, 2003, 802, 181.	0.1	0
62	Characterization of Uranium Particles Produced via Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2003, 802, 193.	0.1	1
63	Failure of Russell-Saunders Coupling in the 5f States of Plutonium. Physical Review Letters, 2003, 90, 196404.	2.9	84
64	Resonant photoemission in f-electron systems: Pu and Gd. Physical Review B, 2003, 68, .	1.1	68
65	Experimental verification of the need for either jj or intermediate coupling in the 5f states of plutonium. Materials Research Society Symposia Proceedings, 2003, 802, 66.	0.1	0
66	The Failure of Russell-Saunders Coupling in the 5f States of Plutonium. AIP Conference Proceedings, 2003, , .	0.3	0
67	The Properties of Actinide Nanostructures. AIP Conference Proceedings, 2003, , .	0.3	1
68	Spin-Resolved Photoemission of Surface States of W(110) (1 Å <sup>-1</sup> –1)H. Physical Review Letters, 2002, 89, 216802.	2.9	139
69	X-ray Magnetic Linear Dichroism of Fe-Ni Alloys on Cu(111). Materials Research Society Symposia Proceedings, 2001, 674, 1.	0.1	1
70	Surface-sensitive, element-specific magnetometry with x-ray linear dichroism. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2000, 18, 1259-1263.	0.9	4
71	Magnetic properties of Fe-based alloys. Journal of Applied Physics, 2000, 87, 5460-5462.	1.1	3
72	On Element-Specific Magnetometry with Linear Dichroism in Photoemission. , 2000, , 381-389.		0

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73	Fermi surface study of pseudomorphic Fe <sub>1-x</sub> Ni <sub>x</sub> and Co <sub>1-x</sub> Ni <sub>x</sub> thin films on Cu(100). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1322-1325.	0.9	0
74	Investigation of resonant photoemission in Gd with x-ray linear dichroism. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1313-1318.	0.9	2
75	Enhanced Co orbital moments in Co-rare-earth permanent-magnet films. Physical Review B, 1998, 57, 5291-5297.	1.1	22
76	Nature of Resonant Photoemission in Gd. Physical Review Letters, 1998, 81, 1306-1309.	2.9	28
77	Characterization and photoemission dichroism of epitaxially grown Gd(0001)/Y(0001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1348-1354.	0.9	9
78	Observation of the Quantum Well Interference in Magnetic Nanostructures by Photoemission. Physical Review Letters, 1998, 80, 1754-1757.	2.9	46
79	Evidence for the Photoemission Nature of Gd 4f Resonant Photoemission. Materials Research Society Symposia Proceedings, 1998, 524, 197.	0.1	0
80	Generalized description of magnetic x-ray circular dichroism in Fe 3p photoelectron emission. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1766-1769.	0.9	8
81	Comparison of magnetic linear dichroism in 4f photoemission and 4d-4f photoemission from Gd on Y(0001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1755-1758.	0.9	6
82	Magnetic dichroism effect of binary alloys using a circularly polarized x ray. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 2287-2290.	0.9	7
83	Magnetic Instability of Ultrathin fccFe <sub>x</sub> Ni <sub>1-x</sub> Films. Physical Review Letters, 1997, 79, 5166-5169.	2.9	59
84	Effects of Symmetry on Circular and Linear Magnetic Dichroism in Angle-Resolved Photoemission Spectra of Gd/Y(0001) and Fe-Ni/Cu(001). Materials Research Society Symposia Proceedings, 1997, 475, 493.	0.1	4
85	Fermi Surface Mapping Using A Third Generation Light Source. Materials Research Society Symposia Proceedings, 1996, 437, 47.	0.1	1
86	Correlation Of Magnetic Dichroism in X-Ray Absorption and Photoelectron Emission using Ultrathin Magnetic Alloy Films. Materials Research Society Symposia Proceedings, 1996, 437, 61.	0.1	0
87	Application of Mxcd to Magnetic Thin-Film Sensors. Materials Research Society Symposia Proceedings, 1996, 437, 79.	0.1	3
88	Magnetic x-ray linear dichroism in the photoelectron spectroscopy of ultrathin magnetic alloy films. Journal of Applied Physics, 1996, 79, 5626.	1.1	17
89	Angle-resolved x-ray circular and magnetic circular dichroisms: Definitions and applications. Physical Review B, 1996, 54, 15356-15362.	1.1	3
90	Probing surface and thin film magnetic structure with circularly polarized synchrotron radiation. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 3152.	1.6	2

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91	Magnetic x-ray dichroism in the spectroscopy of ultrathin magnetic alloy films. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 3171.	1.6	10
92	Magnetic Coupling in Spin-Valves from Magnetic Circular Dichroism. Materials Research Society Symposia Proceedings, 1995, 403, 737.	0.1	0
93	Spin-specific photoelectron diffraction, photoelectron spectroscopy, and absorption using magnetic x-ray circular dichroism. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 1534-1538.	0.9	4
94	First results from the SpectroMicroscopy Beamline at the Advanced Light Source. Review of Scientific Instruments, 1995, 66, 1342-1345.	0.6	49
95	Comparison of branching ratio and sum-rule analyses of magnetic circular dichroism in x-ray-absorption spectroscopy. Physical Review B, 1995, 52, 6530-6541.	1.1	18
96	Spin-specific photoelectron diffraction using magnetic x-ray circular dichroism. Journal of Applied Physics, 1994, 76, 6465-6467.	1.1	3
97	Linear and Circular Dichroism in Angle Resolved Fe3pPhotoemission. Physical Review Letters, 1994, 73, 1533-1536.	2.9	67
98	Spin-polarized photoelectron diffraction using circularly polarized x rays. Physical Review B, 1994, 50, 6774-6778.	1.1	21
99	Resonant photoemission and magnetic x-ray circular dichroism in the Mshell of ultrathin films of Fe. Journal of Applied Physics, 1994, 75, 6369-6371.	1.1	4
100	Dependence of x-ray absorption magnetic circular dichroism on layer periodicity in iron-platinum multilayers. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2215-2218.	0.9	9
101	Magnetic X-Ray Circular Dichroism in Spin-Polarized Photoelectron Diffraction. Materials Research Society Symposia Proceedings, 1994, 375, 101.	0.1	0
102	Magnetic X-Ray Circular Dichroism in Fe Co Pt Multilayers. Materials Research Society Symposia Proceedings, 1994, 343, 393.	0.1	1
103	Linear and Circular Dichroism in Angle Resolved Fe 3p Photoemission. Materials Research Society Symposia Proceedings, 1994, 375, 105.	0.1	0
104	Magnetic X-Ray Circular Dichroism in Nickel-Gold Multilayers. Materials Research Society Symposia Proceedings, 1994, 375, 71.	0.1	0
105	X-RAY ABSORPTION MAGNETIC CIRCULAR DICHROISM: SIMPLIFIED SPIN-ALIGNMENT ANALYSIS OF F ELECTRON SYSTEMS. Modern Physics Letters B, 1993, 07, 317-323.	1.0	1
106	Magnetic dichroism in core-level photoemission from fcc Fe/Cu(100) films. Journal of Applied Physics, 1993, 73, 5936-5938.	1.1	9
107	Imaging of a surface alloy with energy-dependent photoelectron holography. Physical Review Letters, 1993, 70, 4150-4153.	2.9	54
108	Magnetic circular dichroism in x-ray absorption for well characterized Fe/Pt multilayers. Journal of Applied Physics, 1993, 74, 6999-7001.	1.1	5

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109	Magnetic x-ray dichroism in 2p-absorption spectra of Fe/Cu(001). Journal of Applied Physics, 1993, 73, 6748-6750.	1.1	9
110	Magnetic dichroism in core-level photoemission from fcc Fe/Cu(001) films. Physical Review B, 1992, 46, 552-555.	1.1	45
111	Giant x-ray absorption circular dichroism in magnetic ultrathin films of Fe/Cu(001). Physical Review Letters, 1992, 68, 3642-3645.	2.9	101
112	Valence bands and Fermi-surface topology of untwinned single-crystal YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.9</sub> . Physical Review B, 1992, 45, 5563-5576.	1.1	97
113	Experimental Optimization for Imaging with Photoelectron Diffraction. Materials Research Society Symposia Proceedings, 1992, 295, 213.	0.1	1
114	Valence-band photoemission from a quantum-dot system. Physical Review Letters, 1991, 66, 2786-2789.	2.9	164
115	Concentration-Dependent Surface-State Shifts: Au on Cu(001). Materials Research Society Symposia Proceedings, 1991, 229, 9.	0.1	0
116	Photoemission investigation of compound semiconductor monodisperse clusters. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 852-853.	0.9	8
117	Surface morphology and growth of AgBr on Ag(111). Physical Review B, 1991, 43, 6405-6410.	1.1	17
118	Photoelectron Diffraction of Magnetic Ultrathin Films: Fe/Cu(001). Materials Research Society Symposia Proceedings, 1990, 208, 283.	0.1	6
119	Probing bimetallic surfaces with photoelectron diffraction: Au/Cu(001) and Fe/Cu(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1990, 8, 2494-2496.	0.9	16
120	Occupied electronic structure of Au and Ag on Ge(111). Physical Review B, 1989, 40, 2814-2824.	1.1	17
121	Column 1B metal adsorption on Ge(111): The growth mode of Cu. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 2083-2086.	0.9	5
122	Angle-resolved photoelectron spectroscopy studies of surface alloying in Au/Cu(001). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1989, 7, 2475-2480.	0.9	21
123	Unoccupied electronic structure of Au and Ag on Ge(111). Physical Review B, 1988, 37, 8656-8660.	1.1	19
124	Summary Abstract: Angle-resolved inverse photoelectron spectroscopy investigations of Au and Ag on Ge(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1988, 6, 772-773.	0.9	2
125	Development of a three-dimensional valence-band structure in Ag overlayers on Cu(001). Physical Review B, 1987, 35, 9056-9066.	1.1	36
126	Geometry of (22)S/Cu(001) determined with use of angle-resolved-photoemission extended fine structure. Physical Review B, 1987, 35, 3773-3782.	1.1	58



