FranÃ§ois Rochet

List of Publications by Year
in descending order

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112	2,727	186265	214800
papers	citations	28 h-index	47 g-index

113	113	113	2295
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Oxidation of silicon. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1989, 60, 189-212.	0.6	139
2	The thermal oxidation of silicon the special case of the growth of very thin films. Advances in Physics, 1986, 35, 237-274.	14.4	130
3	Copper phthalocyanine on Si(111)-7 Ã— 7 and Si(001)-2 Ã— 1 surfaces: an X-ray photoemission spectroscopy and synchrotron X-ray absorption spectroscopy study. Surface Science, 1994, 319, 251-266.	1.9	120
4	Modification of SiO through room-temperature plasma treatments, rapid thermal annealings, and laser irradiation in a nonoxidizing atmosphere. Physical Review B, 1988, 37, 6468-6477.	3.2	117
5	Contrasted behavior of Si(001) and Si(111) surfaces with respect to NH3 adsorption and thermal nitridation: a N 1s and Si 2p core level study with synchrotron radiation. Surface Science, 1994, 304, 33-47.	1.9	106
6	An 18O Study of the Oxidation Mechanism of Silicon in Dry Oxygen. Journal of the Electrochemical Society, 1984, 131, 914-923.	2.9	100
7	Palladium clusters on graphite: Evidence of resonant hybrid states in the valence and conduction bands. Physical Review B, 1990, 41, 5685-5695.	3.2	83
8	Ethylene onSi(001)â^'2Ã—1andSi(111)â^'7Ã—7:â€ƒX-ray photoemission spectroscopy with synchrotron radiation. Physical Review B, 1998, 58, 11029-11042.	3.2	82
9	SiC formation by reaction of Si(001) with acetylene: Electronic structure and growth mode. Physical Review B, 1997, 56, 4266-4282.	3.2	71
10	Suboxides at the Si/SiO2 interface: a Si2p core level study with synchrotron radiation. Journal of Non-Crystalline Solids, 1997, 216, 148-155.	3.1	70
11	Copper phthalocyanine on Si(111)-7 Ã— 7 and Si(001)-2 Ã— 1: an XPS/AES and STM study. Surface Science, 1994, 319, 10-20.	1.9	67
12	Time-resolved photoelectron spectroscopy using synchrotron radiation time structure. Journal of Synchrotron Radiation, 2011, 18, 245-250.	2.4	67
13	Adsorption of water on Si(001)-2 Ã— 1 and Si(111)-7 Ã— 7 surfaces at 90 and 300 K: A Si 2p core-level and valence band study with synchrotron radiation. Surface Science, 1995, 338, 143-156.	1.9	57
14	An 18O Study of Cooperative Diffusion and Chemical Reaction during Thermal Treatments of Silica Films in Water Vapor. Journal of the Electrochemical Society, 1982, 129, 867-876.	2.9	55
15	Oxidized silicon surfaces studied by high resolution Si 2p core-level photoelectron spectroscopy using synchrotron radiation. Journal of Non-Crystalline Solids, 2001, 280, 150-155.	3.1	52
16	Electronic structure of acetylene onSi(111)â^'7Ã—7:X-ray photoelectron and x-ray absorption spectroscopy. Physical Review B, 1998, 57, 6738-6748.	3.2	46
17	Near Ambient Pressure X-ray Photoelectron Spectroscopy Study of the Atomic Layer Deposition of TiO₂ on RuO₂(110). Journal of Physical Chemistry C, 2016, 120, 243-251.	3.1	45
18	Low-pressure oxidation of silicon stimulated by low-energy electron bombardment. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1985, 52, 1051-1069.	0.6	37

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19	Adsorption of acetonitrile and acrylonitrile on Si()-2Ã—1 at room temperature studied by synchrotron radiation photoemission and NEXAFS spectroscopies. Surface Science, 2002, 513, 37-48.	1.9	37
20	Cation Depth-Distribution at Alkali Halide Aqueous Solution Surfaces. Journal of Physical Chemistry C, 2015, 119, 9253-9259.	3.1	37
21	Structural evolution of very thin silicon oxide films during thermal growth in dry oxygen. Applied Physics Letters, 1984, 44, 48-50.	3.3	35
22	Characterization of hydroxyl groups on water-reacted<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Si</mml:mi><mml:mrow><mml:mo>(</mml:mo><mml:mn>001</mml:mn><mml:mo>)</mml:mo></mml:mrow></mml:mrow> synchrotron radiation O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>s</mml:mi></mml:mrow>. Physical Review B, 2007, 76, .	3.2	35
23	Study of atomic transport mechanisms during thermal nitridation of silicon in ammonia using 15N and D labelled gas. Applied Surface Science, 1986, 26, 326-334.	6.1	32
24	Metal phthalocyanines (MPc, Mî—»Ni, Cu) on Cu(001) and Si(001) surfaces studied by XPS, XAS and STM. Journal of Electron Spectroscopy and Related Phenomena, 1995, 76, 219-224.	1.7	32
25	Operando Near-Ambient Pressure X-ray Photoelectron Spectroscopy Study of the CO Oxidation Reaction on the Oxide/Metal Model Catalyst ZnO/Pt(111). ACS Catalysis, 2019, 9, 10212-10225.	11.2	32
26	Adsorption of benzonitrile onSi(001)â^'2Ã—1at 300 K. Physical Review B, 2005, 71, .	3.2	31
27	Experimental and theoretical NEXAFS/XPS study of the room-temperature adsorption of acetonitrile onSi(001)â^'2Ã—1. Physical Review B, 2005, 71, .	3.2	31
28	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	3.1	29
29	Growth of epitaxial silica on vicinal Si(001) surfaces during thermal oxidation in O₂. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1989, 59, 339-363.	0.6	27
30	Theory assisted interpretation of copper phthalocyanine core levels XPS spectra. Journal of Electron Spectroscopy and Related Phenomena, 1994, 67, 189-209.	1.7	27
31	Si1â^'xCx formation by reaction of Si(111) with acetylene: growth mode, electronic structure and luminescence investigation. Surface Science, 1999, 426, 277-289.	1.9	27
32	Isolated Silicon Dangling Bonds on a Water-Saturated n⁺-Doped Si(001)-2 Ã— 1 Surface: An XPS and STM Study. Journal of Physical Chemistry C, 2011, 115, 7686-7693.	3.1	27
33	The Electronic Structure of Saturated NaCl and NaI Solutions in Contact with a Gold Substrate. Topics in Catalysis, 2016, 59, 605-620.	2.8	27
34	BiSrCaCuO superconducting thin films prepared by pulsed laser evaporation deposition. Solid State Communications, 1988, 67, 345-347.	1.9	26
35	The As-terminated Si(001) surface and its oxidation in molecular oxygen: an Si 2p and As 3d core-level study with synchrotron radiation. Surface Science, 1995, 326, 229-242.	1.9	26
36	Molecular Staples on Si(001)-2 Ã— 1: Dual-Head Primary Amines. Journal of Physical Chemistry C, 2009, 113, 11336-11345.	3.1	26

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37	Triethylamine on Si(001)-(2 Ã— 1) at 300 K: Molecular Adsorption and Site Configurations Leading to Dissociation. Journal of Physical Chemistry C, 2012, 116, 16473-16486.	3.1	26
38	Deposition of high Tc YBaCuO and BiSrCaCuO superconducting thin films by pulsed excimer laser evaporation. Solid State Communications, 1988, 67, 975-979.	1.9	25
39	CO oxidation activity of Pt, Zn and ZnPt nanocatalysts: a comparative study by in situ near-ambient pressure X-ray photoelectron spectroscopy. Nanoscale, 2018, 10, 6566-6580.	5.6	24
40	DFT calculations of XPS/NEXAFS and IR spectra to elucidate the reaction products of acetonitrile with Si(001)-2Ã—1. Surface Science, 2007, 601, 5515-5525.	1.9	22
41	Nitrogen<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>1</mml:mn><mml:mi>s</mml:mi></mml:mrow></mml:math>NEXAFS and XPS spectroscopy of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>NH</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> Si(001)-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mn>2</mml:mn><mml:mo>Ã—</mml:mo><mn. Physical Review B, 2009, 7	3.2	22
42	Preparation by dc single target sputtering and characterization of superconducting BiSrCaCuO films. Solid State Communications, 1988, 68, 235-238.	1.9	21
43	Adsorption of acetonitrile(CH3CN)onSi(111)â˜7Ã—7at room temperature studied by synchrotron radiation core-level spectroscopies and excited-state density functional theory calculations. Physical Review B, 2006, 73, .	3.2	21
44	Chemical Evolution of Ptâ€“Zn Nanoalloys Dressed in Oleylamine. ACS Nano, 2021, 15, 4018-4033.	14.6	21
45	Dynamic and kinetic aspects of the adsorption of acrylonitrile onSi(001)â˜2Ã—1. Physical Review B, 2005, 71, .	3.2	20
46	X-ray microscopic investigation of molecular orientation in a hole carrier thin film for organic solar cells. Nano Research, 2018, 11, 2771-2782.	10.4	20
47	Electronic density of empty states of Ge/Si(111) epitaxial layers: Theory and experiment. Physical Review B, 1999, 60, 5759-5769.	3.2	19
48	Surface Reactions of 3-Butenenitrile on the Si(001)-2 Ã— 1 Surface at Room Temperature. Journal of Physical Chemistry B, 2005, 109, 12899-12908.	2.6	19
49	Oxidation of Small Supported Platinum-based Nanoparticles Under Near-Ambient Pressure Exposure to Oxygen. Topics in Catalysis, 2016, 59, 550-563.	2.8	18
50	Acetylene gas as a carbon source: An x-ray photoemission spectroscopy and near-edge x-ray absorption fine structure spectroscopy study of its stability on Si(111)-7Ã—7. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1692.	1.6	17
51	Acetylene on Si(111): carbon incorporation in the growth of c-SiC thin layers. Surface Science, 2001, 489, 185-190.	1.9	17
52	Static and dynamic electronic characterization of organic monolayers grafted on a silicon surface. Physical Chemistry Chemical Physics, 2016, 18, 3675-3684.	2.8	17
53	Soft-x-ray photoelectron, x-ray absorption, and autoionization spectroscopy of 1,5-cyclooctadiene onSi(001)â˜2Ã—1. Physical Review B, 1999, 60, 2930-2940.	3.2	16
54	Electronic Structure of 1,3,5,7-Cyclooctatetraene Chemisorbed on Si(001)-2Ã—1 at 300 K Studied by PES, NEXAFS, and Resonant Valence Band Spectroscopy. Journal of Physical Chemistry B, 2002, 106, 4967-4973.	2.6	15

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55	Heteroepitaxial growth of InAs on GaAs(100) mediated by Te at the interface. Solid State Communications, 1995, 95, 873-877.	1.9	14
56	High resolution depth profiling in silicon oxynitride films using narrow nuclear reaction resonances. Nuclear Instruments & Methods in Physics Research B, 1998, 136-138, 521-527.	1.4	14
57	Si(001) vicinal surface oxidation in O2: Angle-resolved Si 2p core-level study using synchroton radiation. Applied Surface Science, 1992, 59, 117-134.	6.1	13
58	Core-electron spectroscopy of nonconjugated linear dienes chemisorbed onSi(001)â˜2Ã—1with synchrotron radiation. Physical Review B, 2000, 62, 7645-7653.	3.2	13
59	Resonant Auger spectroscopy of solid acrylonitrile at the N K-edge. Journal of Electron Spectroscopy and Related Phenomena, 2002, 122, 285-295.	1.7	13
60	Real-Time X-ray Photoemission Spectroscopy Study of Si(001)-2Ã—1 Exposed to Water Vapor: Adsorption Kinetics, Fermi Level Positioning, and Electron Affinity Variations. Journal of Physical Chemistry C, 2016, 120, 21631-21641.	3.1	13
61	Chemical and kinetic insights into the Thermal Decomposition of an Oxide Layer on Si(111) from Millisecond Photoelectron Spectroscopy. Scientific Reports, 2017, 7, 14257.	3.3	13
62	The Fermi level as an energy reference in liquid jet X-ray photoelectron spectroscopy studies of aqueous solutions. Physical Chemistry Chemical Physics, 2021, 23, 16224-16233.	2.8	13
63	Soft X-ray Heterogeneous Radiolysis of Pyridine in the Presence of Hydrated Strontium-Hydroxyhectorite and its Monitoring by Near-Ambient Pressure Photoelectron Spectroscopy. Scientific Reports, 2018, 8, 6164.	3.3	12
64	Electronic properties of laser-deposited Bi2Sr2CaCu2O8+Î´ thin films by X-ray photoemission and X-ray auger spectroscopies. Physica C: Superconductivity and Its Applications, 1989, 159, 447-460.	1.2	11
65	Pb1 defect study and chemical characterization of the Si(001)î—¸SiO2 interface in oxidized porous silicon. Surface Science, 1996, 352-354, 793-796.	1.9	11
66	Pyridine on Si(001)-(<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 312 Td (di Density functional theory simulations compared with spectroscopic measurements. Physical Review B, 2012, 85, .	3.2	11
67	Testing the Cabreraâ€“Mott Oxidation Model for Aluminum under Realistic Conditions with Near-Ambient Pressure Photoemission. Journal of Physical Chemistry C, 2022, 126, 2517-2530.	3.1	11
68	High Tc YBaCuO and BiSrCaCuO superconducting thin films deposited by pulsed excimer laser evaporation. Journal of the Less Common Metals, 1989, 151, 249-256.	0.8	10
69	Palladium clusters on graphite: A Bremsstrahlung Isochromat Spectroscopy study. Solid State Communications, 1990, 73, 251-255.	1.9	10
70	Thin films of BiSrCaCu oxide prepared by laser evaporation. Journal of Materials Research, 1990, 5, 258-264.	2.6	10
71	Ene-like Reaction of Cyclopentene on Si(001)-2 Ã— 1: An XPS and NEXAFS Study. Journal of Physical Chemistry C, 2012, 116, 12680-12686.	3.1	10
72	Real-Time Study of CVD Growth of Silicon Oxide on Rutile TiO₂(110) Using Tetraethyl Orthosilicate. Journal of Physical Chemistry C, 2015, 119, 19149-19161.	3.1	10

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73	Energy-Level Alignment of a Hole-Transport Organic Layer and ITO: Toward Applications for Organic Electronic Devices. ACS Applied Materials & Interfaces, 2017, 9, 30992-31004.	8.0	10
74	Resonant Auger spectroscopy of poly(4-hydroxystyrene). Journal of Electron Spectroscopy and Related Phenomena, 2002, 122, 11-25.	1.7	9
75	Benzaldehyde on Water-Saturated Si(001): Reaction with Isolated Silicon Dangling Bonds versus Concerted Hydrosilylation. Journal of Physical Chemistry C, 2014, 118, 10005-10016.	3.1	9
76	Experimental and theoretical gas phase electronic structure study of tetrakis(dimethylamino) complexes of Ti(IV) and Hf(IV). Journal of Electron Spectroscopy and Related Phenomena, 2019, 234, 80-85.	1.7	9
77	Physicochemistry of laser-deposited BiSrCaCuO thin films studied by XPS and XAS. Applied Surface Science, 1991, 47, 173-185.	6.1	8
78	Study of CuOy layers on Si and MgO by a combination of ion beam analysis (RBS/NRA), X-ray photoemission spectroscopy (XPS) and X-ray absorption spectroscopy (XAS). Applied Surface Science, 1993, 64, 313-327.	6.1	8
79	Charge Transfer and Energy Level Alignment at the Interface between Cyclopentene-Modified Si(001) and Tetracyanoquinodimethane. Journal of Physical Chemistry C, 2014, 118, 22499-22508.	3.1	8
80	Effect of pressure on thermally induced diffusivity and reactivity of water in thin amorphous silica films. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1987, 55, 747-755.	0.6	7
81	Evidence of ordered phase of Geâ€“Si heterostructures by X-ray absorption spectroscopy at Ge L3 edge. Surface Science, 1998, 416, 466-471.	1.9	7
82	Oxidation of the H-Si(111)-1Ã—1 surface: high resolution Si 2p core-level spectroscopy with synchrotron radiation. Surface Science, 2000, 463, 102-108.	1.9	7
83	Hydrosilylation of Styrene on Water-Saturated Si(001)-2Ã—1 at Room Temperature. Journal of Physical Chemistry C, 2011, 115, 14827-14833.	3.1	7
84	First stages of low temperature and low pressure carbonization of Si (0 0 1) in acetylene. Nuclear Instruments & Methods in Physics Research B, 1998, 136-138, 301-307.	1.4	6
85	Exchange mechanisms at the Ge/Si(001) interface from a multiple-scattering analysis of the GeL3absorption edge. Physical Review B, 1998, 58, 4095-4101.	3.2	6
86	Room temperature differential conductance measurements of triethylamine molecules adsorbed on Si(001). Physical Chemistry Chemical Physics, 2016, 18, 23231-23237.	2.8	6
87	Reply to â€œComment on â€˜Contrasted behavior of Si(001) and Si(111) surfaces with respect to NH3 adsorption and thermal nitridation: a N 1s and Si 2p core level study with synchrotron radiationâ€™ by C.H.F. Peden, J.W. Rogers Jr. and N.D. Shinnâ€• Surface Science, 1994, 320, 371-372.	1.9	5
88	X-ray absorption at Ge L[sub 3] edges as a tool to investigate Ge/Si(001) interfaces and heterostructures. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 1616.	1.6	5
89	A Synchrotron Radiation X-ray Photoemission Spectroscopy Study of n-Propyltriethoxysilane Adsorption on Si(001)-2 Ã— 1 at Room Temperature. Journal of Physical Chemistry C, 2010, 114, 21450-21456.	3.1	5
90	Propanoate grafting on (H,OH)-Si(0â€‰0â€‰1)-2 Ã— 1. Journal of Physics Condensed Matter, 2015, 27, 054005	1.8	5

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91	NITRILES ADSORBED ON Si(001) AT 300 K STUDIED VIA SYNCHROTRON RADIATION CORE-ELECTRON SPECTROSCOPIES. International Journal of Nanoscience, 2007, 06, 85-94.	0.7	4
92	Resonant Auger spectroscopy study of charge transfer phenomena in N 1s core-excited acetonitrile adsorbates on Si(001)-2Ã—1. Surface Science, 2007, 601, 552-561.	1.9	4
93	Dissociation of Ethoxysilane and Methoxysilane on Si(001)-2 Ã— 1 and Si(111)-7 Ã— 7 at Room Temperature: A Comparative Study Using Synchrotron Radiation Photoemission. Journal of Physical Chemistry C, 2014, 118, 24397-24406.	3.1	4
94	Silicon Monomer Formation and Surface Patterning of Si(001)-2 Ã— 1 Following Tetraethoxysilane Dissociative Adsorption at Room Temperature. Journal of Physical Chemistry C, 2014, 118, 1887-1893.	3.1	4
95	Influence of pressure on nitrogen incorporation in ultraviolet chemical vapor deposited SiO2films. Journal of Applied Physics, 1993, 74, 5672-5678.	2.5	3
96	Interaction of acetylene on Si(111): Growth and luminescence study of Si1â^'xCx thin layers. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 2000, 80, 669-678.	0.6	3
97	Hydrogen Bonding of Ammonia with (H,OH)-Si(001) Revealed by Experimental and Ab Initio Photoelectron Spectroscopy. Journal of Physical Chemistry A, 2020, 124, 5378-5388.	2.5	3
98	Isotopic Labeling Studies of Oxynitridation in Nitric Oxide (NO) of Si and SiO2. , 1998, , 165-179.		3
99	Water-rich conditions during titania atomic layer deposition in the 100ÂÂ°C-300ÂÂ°C temperature window produce films with TiIV oxidation state but large H and O content variations. Applied Surface Science, 2022, 601, 154233.	6.1	3
100	Temperature effects on the Si/SiO2 interface defects and suboxide distribution. Journal of Non-Crystalline Solids, 1999, 245, 217-223.	3.1	2
101	Adsorption of 2-butyne on Si(001) at room temperature: A valence band photoemission study. Surface Science, 2007, 601, 3750-3754.	1.9	2
102	Effect of pressure on reaction between deuterated water and thin amorphous silica films. Philosophical Magazine Letters, 1988, 57, 123-128.	1.2	1
103	Role of Te on the morphology of InAs self-assembled islands. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 2633.	1.6	1
104	2-Butyne on Si(001) at room temperature: An XPS and NEXAFS study. Journal of Electron Spectroscopy and Related Phenomena, 2011, 184, 323-326.	1.7	1
105	How a tertiary diamine molecule chelates the silicon dimers of the Si(001) surface: a real-time scanning tunneling microscopy study. Nanoscale, 2018, 10, 2371-2379.	5.6	1
106	Surface Photovoltage dynamics at passivated silicon surfaces: influence of substrate doping and surface termination. Faraday Discussions, 2022, , .	3.2	1
107	A synchrotron Si2p and As3d core level study of the As-terminated Si(001) surface oxidation. Journal of Non-Crystalline Solids, 1995, 187, 40-44.	3.1	0
108	Influence of Te on the morphology of InAs self-assembled nanocrystals. Journal of Crystal Growth, 1999, 201-202, 1172-1175.	1.5	0

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109	XPS Studies of the Si/SiO2 Interface With Synchrotron Radiation. Materials Research Society Symposia Proceedings, 1999, 592, 77.	0.1	0
110	HIGH Tc YBaCuO AND BiSrCaCuO SUPERCONDUCTING THIN FILMS DEPOSITED BY PULSED EXCIMER LASER EVAPORATION. , 1989, , 249-256.		0
111	OXYGEN TRANSPORT STUDIED BY 18O LABELLING IN THIN THERMAL SILICON OXIDE FILMS IN CONNECTION WITH THEIR STRUCTURAL CHARACTERISTICS. , 1983, , 463-471.		0
112	Trimethylamine Probes Isolated Silicon Dangling Bonds and Surface Hydroxyls of (H,OH)-Si(001). Journal of Physical Chemistry C, 2022, 126, 2548-2560.	3.1	0