

François Rochet

List of Publications by Year in descending order

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186265

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#	ARTICLE	IF	CITATIONS
1	Trimethylamine Probes Isolated Silicon Dangling Bonds and Surface Hydroxyls of (H,OH)-Si(001). <i>Journal of Physical Chemistry C</i> , 2022, 126, 2548-2560.	3.1	0
2	Testing the Cabrera-Mott Oxidation Model for Aluminum under Realistic Conditions with Near-Ambient Pressure Photoemission. <i>Journal of Physical Chemistry C</i> , 2022, 126, 2517-2530.	3.1	11
3	Surface Photovoltage dynamics at passivated silicon surfaces: influence of substrate doping and surface termination. <i>Faraday Discussions</i> , 2022, , .	3.2	1
4	Water-rich conditions during titania atomic layer deposition in the 100-300°C temperature window produce films with TiIV oxidation state but large H and O content variations. <i>Applied Surface Science</i> , 2022, 601, 154233.	6.1	3
5	Chemical Evolution of Pt-Zn Nanoalloys Dressed in Oleylamine. <i>ACS Nano</i> , 2021, 15, 4018-4033.	14.6	21
6	The Fermi level as an energy reference in liquid jet X-ray photoelectron spectroscopy studies of aqueous solutions. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 16224-16233.	2.8	13
7	Hydrogen Bonding of Ammonia with (H,OH)-Si(001) Revealed by Experimental and Ab Initio Photoelectron Spectroscopy. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5378-5388.	2.5	3
8	Operando Near-Ambient Pressure X-ray Photoelectron Spectroscopy Study of the CO Oxidation Reaction on the Oxide/Metal Model Catalyst ZnO/Pt(111). <i>ACS Catalysis</i> , 2019, 9, 10212-10225.	11.2	32
9	Experimental and theoretical gas phase electronic structure study of tetrakis(dimethylamino) complexes of Ti(IV) and Hf(IV). <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2019, 234, 80-85.	1.7	9
10	CO oxidation activity of Pt, Zn and ZnPt nanocatalysts: a comparative study by <i>in situ</i> near-ambient pressure X-ray photoelectron spectroscopy. <i>Nanoscale</i> , 2018, 10, 6566-6580.	5.6	24
11	Soft X-ray Heterogeneous Radiolysis of Pyridine in the Presence of Hydrated Strontium-Hydroxyhectorite and its Monitoring by Near-Ambient Pressure Photoelectron Spectroscopy. <i>Scientific Reports</i> , 2018, 8, 6164.	3.3	12
12	How a tertiary diamine molecule chelates the silicon dimers of the Si(001) surface: a real-time scanning tunneling microscopy study. <i>Nanoscale</i> , 2018, 10, 2371-2379.	5.6	1
13	X-ray microscopic investigation of molecular orientation in a hole carrier thin film for organic solar cells. <i>Nano Research</i> , 2018, 11, 2771-2782.	10.4	20
14	Energy-Level Alignment of a Hole-Transport Organic Layer and ITO: Toward Applications for Organic Electronic Devices. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 30992-31004.	8.0	10
15	Chemical and kinetic insights into the Thermal Decomposition of an Oxide Layer on Si(111) from Millisecond Photoelectron Spectroscopy. <i>Scientific Reports</i> , 2017, 7, 14257.	3.3	13
16	Oxidation of Small Supported Platinum-based Nanoparticles Under Near-Ambient Pressure Exposure to Oxygen. <i>Topics in Catalysis</i> , 2016, 59, 550-563.	2.8	18
17	Real-Time X-ray Photoemission Spectroscopy Study of Si(001)-2x1 Exposed to Water Vapor: Adsorption Kinetics, Fermi Level Positioning, and Electron Affinity Variations. <i>Journal of Physical Chemistry C</i> , 2016, 120, 21631-21641.	3.1	13
18	Room temperature differential conductance measurements of triethylamine molecules adsorbed on Si(001). <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 23231-23237.	2.8	6

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19	Metallic Functionalization of CdSe 2D Nanoplatelets and Its Impact on Electronic Transport. Journal of Physical Chemistry C, 2016, 120, 12351-12361.	3.1	29
20	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
21	Static and dynamic electronic characterization of organic monolayers grafted on a silicon surface. Physical Chemistry Chemical Physics, 2016, 18, 3675-3684.	2.8	17
22	Near Ambient Pressure X-ray Photoelectron Spectroscopy Study of the Atomic Layer Deposition of TiO ₂ on RuO ₂ (110). Journal of Physical Chemistry C, 2016, 120, 243-251.	3.1	45
23	Cation Depth-Distribution at Alkali Halide Aqueous Solution Surfaces. Journal of Physical Chemistry C, 2015, 119, 9253-9259.	3.1	37
24	Real-Time Study of CVD Growth of Silicon Oxide on Rutile TiO ₂ (110) Using Tetraethyl Orthosilicate. Journal of Physical Chemistry C, 2015, 119, 19149-19161.	3.1	10
25	Propanoate grafting on (H ₂ O)-Si(100)-2 Å ⁻¹ . Journal of Physics Condensed Matter, 2015, 27, 054005.1.8		5
26	Dissociation of Ethoxysilane and Methoxysilane on Si(001)-2 Å ⁻¹ and Si(111)-7 Å ⁻¹ at Room Temperature: A Comparative Study Using Synchrotron Radiation Photoemission. Journal of Physical Chemistry C, 2014, 118, 24397-24406.	3.1	4
27	Silicon Monomer Formation and Surface Patterning of Si(001)-2 Å ⁻¹ Following Tetraethoxysilane Dissociative Adsorption at Room Temperature. Journal of Physical Chemistry C, 2014, 118, 1887-1893.	3.1	4
28	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
29	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
30	Pyridine on Si(001)-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
31	Ene-like Reaction of Cyclopentene on Si(001)-2 Å ⁻¹ : An XPS and NEXAFS Study. Journal of Physical Chemistry C, 2012, 116, 12680-12686.	3.1	10
32	Triethylamine on Si(001)-(2 Å ⁻¹) at 300 K: Molecular Adsorption and Site Configurations Leading to Dissociation. Journal of Physical Chemistry C, 2012, 116, 16473-16486.	3.1	26
33	Isolated Silicon Dangling Bonds on a Water-Saturated n-Doped Si(001)-2 Å ⁻¹ Surface: An XPS and STM Study. Journal of Physical Chemistry C, 2011, 115, 7686-7693.	3.1	27
34	Hydrosilylation of Styrene on Water-Saturated Si(001)-2 Å ⁻¹ at Room Temperature. Journal of Physical Chemistry C, 2011, 115, 14827-14833.	3.1	7
35	Time-resolved photoelectron spectroscopy using synchrotron radiation time structure. Journal of Synchrotron Radiation, 2011, 18, 245-250.	2.4	67
36	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

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37	A Synchrotron Radiation X-ray Photoemission Spectroscopy Study of n-Propyltriethoxysilane Adsorption on Si(001)-2 Å ⁻¹ at Room Temperature. Journal of Physical Chemistry C, 2010, 114, 21450-21456.	3.1	5
38	Molecular Staples on Si(001)-2 Å ⁻¹ : Dual-Head Primary Amines. Journal of Physical Chemistry C, 2009, 113, 11336-11345.	3.1	26
39	Characterization of hydroxyl groups on water-reacted Si(001)-2 Å ⁻¹ by NEXAFS and XPS spectroscopy. Physical Review B, 2009, 79, 045411.	3.2	35
40	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
41	Resonant Auger spectroscopy study of charge transfer phenomena in N 1s core-excited acetonitrile adsorbates on Si(001)-2 Å ⁻¹ . Surface Science, 2007, 601, 552-561.	1.9	4
42	Adsorption of 2-butyne on Si(001) at room temperature: A valence band photoemission study. Surface Science, 2007, 601, 3750-3754.	1.9	2
43	DFT calculations of XPS/NEXAFS and IR spectra to elucidate the reaction products of acetonitrile with Si(001)-2 Å ⁻¹ . Surface Science, 2007, 601, 5515-5525.	1.9	22
44	Adsorption of acetonitrile(CH ₃ CN) on Si(111)-7 Å ⁻¹ at room temperature studied by synchrotron radiation core-level spectroscopies and excited-state density functional theory calculations. Physical Review B, 2006, 73, .	3.2	21
45	Dynamic and kinetic aspects of the adsorption of acrylonitrile on Si(001)-2 Å ⁻¹ . Physical Review B, 2005, 71, .	3.2	20
46	Adsorption of benzonitrile on Si(001)-2 Å ⁻¹ at 300 K. Physical Review B, 2005, 71, .	3.2	31
47	Surface Reactions of 3-Butenenitrile on the Si(001)-2 Å ⁻¹ Surface at Room Temperature. Journal of Physical Chemistry B, 2005, 109, 12899-12908.	2.6	19
48	Experimental and theoretical NEXAFS/XPS study of the room-temperature adsorption of acetonitrile on Si(001)-2 Å ⁻¹ . Physical Review B, 2005, 71, .	3.2	31
49	Electronic Structure of 1,3,5,7-Cyclooctatetraene Chemisorbed on Si(001)-2 Å ⁻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
50	Resonant Auger spectroscopy of poly(4-hydroxystyrene). Journal of Electron Spectroscopy and Related Phenomena, 2002, 122, 11-25.	1.7	9
51	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
52	Adsorption of acetonitrile and acrylonitrile on Si(001)-2 Å ⁻¹ at room temperature studied by synchrotron radiation photoemission and NEXAFS spectroscopies. Surface Science, 2002, 513, 37-48.	1.9	37
53	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

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55	Acetylene on Si(111): carbon incorporation in the growth of c-SiC thin layers. <i>Surface Science</i> , 2001, 489, 185-190.	1.9	17
56	Interaction of acetylene on Si(111): Growth and luminescence study of Si _{1-x} C _x thin layers. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000, 80, 669-678.	0.6	3
57	Core-electron spectroscopy of nonconjugated linear dienes chemisorbed on Si(001)-1x1 with synchrotron radiation. <i>Physical Review B</i> , 2000, 62, 7645-7653.	3.2	13
58	Oxidation of the H-Si(111)-1x1 surface: high resolution Si 2p core-level spectroscopy with synchrotron radiation. <i>Surface Science</i> , 2000, 463, 102-108.	1.9	7
59	Electronic density of empty states of Ge/Si(111) epitaxial layers: Theory and experiment. <i>Physical Review B</i> , 1999, 60, 5759-5769.	3.2	19
60	Soft-x-ray photoelectron, x-ray absorption, and autoionization spectroscopy of 1,5-cyclooctadiene on Si(001)-1x1. <i>Physical Review B</i> , 1999, 60, 2930-2940.	3.2	16
61	Influence of Te on the morphology of InAs self-assembled nanocrystals. <i>Journal of Crystal Growth</i> , 1999, 201-202, 1172-1175.	1.5	0
62	Si _{1-x} C _x formation by reaction of Si(111) with acetylene: growth mode, electronic structure and luminescence investigation. <i>Surface Science</i> , 1999, 426, 277-289.	1.9	27
63	Temperature effects on the Si/SiO ₂ interface defects and suboxide distribution. <i>Journal of Non-Crystalline Solids</i> , 1999, 245, 217-223.	3.1	2
64	XPS Studies of the Si/SiO ₂ Interface With Synchrotron Radiation. <i>Materials Research Society Symposia Proceedings</i> , 1999, 592, 77.	0.1	0
65	First stages of low temperature and low pressure carbonization of Si(001) in acetylene. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1998, 136-138, 301-307.	1.4	6
66	High resolution depth profiling in silicon oxynitride films using narrow nuclear reaction resonances. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1998, 136-138, 521-527.	1.4	14
67	Evidence of ordered phase of Ge _{0.5} Si heterostructures by X-ray absorption spectroscopy at Ge L ₃ edge. <i>Surface Science</i> , 1998, 416, 466-471.	1.9	7
68	X-ray absorption at Ge L ₃ edges as a tool to investigate Ge/Si(001) interfaces and heterostructures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998, 16, 1616.	1.6	5
69	Role of Te on the morphology of InAs self-assembled islands. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998, 16, 2633.	1.6	1
70	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)-7x7. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998, 16, 1692.	1.6	17
71	Ethylene on Si(001)-1x1 and Si(111)-7x7: X-ray photoemission spectroscopy with synchrotron radiation. <i>Physical Review B</i> , 1998, 58, 11029-11042.	3.2	82
72	Exchange mechanisms at the Ge/Si(001) interface from a multiple-scattering analysis of the Ge L ₃ absorption edge. <i>Physical Review B</i> , 1998, 58, 4095-4101.	3.2	6

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73	Electronic structure of acetylene on Si(111)-7 \times 7: X-ray photoelectron and x-ray absorption spectroscopy. Physical Review B, 1998, 57, 6738-6748.	3.2	46
74	Isotopic Labeling Studies of Oxynitridation in Nitric Oxide (NO) of Si and SiO ₂ . , 1998, , 165-179.		3
75	SiC formation by reaction of Si(001) with acetylene: Electronic structure and growth mode. Physical Review B, 1997, 56, 4266-4282.	3.2	71
76	Suboxides at the Si/SiO ₂ interface: a Si2p core level study with synchrotron radiation. Journal of Non-Crystalline Solids, 1997, 216, 148-155.	3.1	70
77	Pb1 defect study and chemical characterization of the Si(001)-SiO ₂ interface in oxidized porous silicon. Surface Science, 1996, 352-354, 793-796.	1.9	11
78	Metal phthalocyanines (MPC, Mn, 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
79	Heteroepitaxial growth of InAs on GaAs(100) mediated by Te at the interface. Solid State Communications, 1995, 95, 873-877.	1.9	14
80	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
81	Adsorption of water on Si(001)-2 \times 1 and Si(111)-7 \times 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
82	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
83	Theory assisted interpretation of copper phthalocyanine core levels XPS spectra. Journal of Electron Spectroscopy and Related Phenomena, 1994, 67, 189-209.	1.7	27
84	Reply to "Comment on "Contrasted behavior of Si(001) and Si(111) surfaces with respect to NH ₃ adsorption and thermal nitridation: a N 1s and Si 2p core level study with synchrotron radiation" by C.H.F. Peden, J.W. Rogers Jr. and N.D. Shinn". Surface Science, 1994, 320, 371-372.	1.9	5
85	Copper phthalocyanine on Si(111)-7 \times 7 and Si(001)-2 \times 1: an XPS/AES and STM study. Surface Science, 1994, 319, 10-20.	1.9	67
86	Copper phthalocyanine on Si(111)-7 \times 7 and Si(001)-2 \times 1 surfaces: an X-ray photoemission spectroscopy and synchrotron X-ray absorption spectroscopy study. Surface Science, 1994, 319, 251-266.	1.9	120
87	Contrasted behavior of Si(001) and Si(111) surfaces with respect to NH ₃ 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
88	Study of CuO _y 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
89	Influence of pressure on nitrogen incorporation in ultraviolet chemical vapor deposited SiO ₂ films. Journal of Applied Physics, 1993, 74, 5672-5678.	2.5	3
90	Si(001) vicinal surface oxidation in O ₂ : Angle-resolved Si 2p core-level study using synchrotron radiation. Applied Surface Science, 1992, 59, 117-134.	6.1	13

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91	Physicochemistry of laser-deposited BiSrCaCuO thin films studied by XPS and XAS. Applied Surface Science, 1991, 47, 173-185.	6.1	8
92	Palladium clusters on graphite: A Bremsstrahlung Isochromat Spectroscopy study. Solid State Communications, 1990, 73, 251-255.	1.9	10
93	Thin films of BiSrCaCu oxide prepared by laser evaporation. Journal of Materials Research, 1990, 5, 258-264.	2.6	10
94	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
95	Growth of epitaxial silica on vicinal Si(001) surfaces during thermal oxidation in O ₂ . The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1989, 59, 339-363.	0.6	27
96	Electronic properties of laser-deposited Bi ₂ Sr ₂ CaCu ₂ O ₈ + δ thin films by X-ray photoemission and X-ray auger spectroscopies. Physica C: Superconductivity and Its Applications, 1989, 159, 447-460.	1.2	11
97	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
98	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
99	HIGH Tc YBaCuO AND BiSrCaCuO SUPERCONDUCTING THIN FILMS DEPOSITED BY PULSED EXCIMER LASER EVAPORATION. , 1989, , 249-256.		0
100	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
101	BiSrCaCuO superconducting thin films prepared by pulsed laser evaporation deposition. Solid State Communications, 1988, 67, 345-347.	1.9	26
102	Preparation by dc single target sputtering and characterization of superconducting BiSrCaCuO films. Solid State Communications, 1988, 68, 235-238.	1.9	21
103	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
104	Effect of pressure on reaction between deuterated water and thin amorphous silica films. Philosophical Magazine Letters, 1988, 57, 123-128.	1.2	1
105	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
106	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
107	Study of atomic transport mechanisms during thermal nitridation of silicon in ammonia using ¹⁵ N and ² D labelled gas. Applied Surface Science, 1986, 26, 326-334.	6.1	32
108	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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109	Structural evolution of very thin silicon oxide films during thermal growth in dry oxygen. Applied Physics Letters, 1984, 44, 48-50.	3.3	35
110	An ^{18}O Study of the Oxidation Mechanism of Silicon in Dry Oxygen. Journal of the Electrochemical Society, 1984, 131, 914-923.	2.9	100
111	OXYGEN TRANSPORT STUDIED BY ^{18}O LABELLING IN THIN THERMAL SILICON OXIDE FILMS IN CONNECTION WITH THEIR STRUCTURAL CHARACTERISTICS. , 1983, , 463-471.		0
112	An ^{18}O 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