

Alain Rochefort

List of Publications by Year in descending order

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73
papers

2,771
citations

218677

26
h-index

175258

52
g-index

76
all docs

76
docs citations

76
times ranked

3632
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical and mechanical properties of distorted carbon nanotubes. <i>Physical Review B</i> , 1999, 60, 13824-13830.	3.2	293
2	Interaction of Substituted Aromatic Compounds with Graphene. <i>Langmuir</i> , 2009, 25, 210-215.	3.5	260
3	Effects of Finite Length on the Electronic Structure of Carbon Nanotubes. <i>Journal of Physical Chemistry B</i> , 1999, 103, 641-646.	2.6	223
4	Frustrated 2D Molecular Crystallization. <i>Journal of the American Chemical Society</i> , 2007, 129, 13774-13775.	13.7	172
5	The effect of structural distortions on the electronic structure of carbon nanotubes. <i>Chemical Physics Letters</i> , 1998, 297, 45-50.	2.6	130
6	High On~Off Conductance Switching Ratio in Optically-Driven Self-Assembled Conjugated Molecular Systems. <i>ACS Nano</i> , 2010, 4, 2411-2421.	14.6	128
7	Strong adsorption of aminotriazines on graphene. <i>Chemical Communications</i> , 2010, 46, 2923.	4.1	118
8	Alloying effect on the adsorption properties of Pd ₅₀ Cu ₅₀ {111} single crystal surface. <i>Surface Science</i> , 1993, 294, 43-52.	1.9	111
9	Electronic and transport properties of carbon nanotube peapods. <i>Physical Review B</i> , 2003, 67, .	3.2	80
10	A Single Molecule Kondo Switch: Multistability of Tetracyanoethylene on Cu(111). <i>Nano Letters</i> , 2010, 10, 4175-4180.	9.1	77
11	On the control of carbon nanostructures for hydrogen storage applications. <i>Carbon</i> , 2004, 42, 2187-2193.	10.3	66
12	Synergistic alloying behaviour of Pd ₅₀ Cu ₅₀ single crystals upon adsorption and co-adsorption of CO and NO. <i>Applied Surface Science</i> , 1995, 90, 15-27.	6.1	61
13	Switching behavior of semiconducting carbon nanotubes under an external electric field. <i>Applied Physics Letters</i> , 2001, 78, 2521-2523.	3.3	57
14	Strongly Reshaped Organic-Metal Interfaces: Tetracyanoethylene on Cu(100). <i>Physical Review Letters</i> , 2008, 101, 216105.	7.8	57
15	Structural and electronic properties of poly(3-hexylthiophene)-stacked crystals. <i>Physical Review B</i> , 2009, 79, .	3.2	57
16	Electronic Properties of Self-Assembled Trimesic Acid Monolayer on Graphene. <i>Langmuir</i> , 2014, 30, 9707-9716.	3.5	56
17	Quantum Chemical Study of CO and NO Bonding to Pd ₂ , Cu ₂ , and PdCu. <i>The Journal of Physical Chemistry</i> , 1996, 100, 13506-13513.	2.9	55
18	Noncovalent Bicomponent Self-Assemblies on a Silicon Surface. <i>ACS Nano</i> , 2012, 6, 6905-6911.	14.6	46

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19	Electrical Switching in π -Resonant 1D Intermolecular Channels. <i>Nano Letters</i> , 2002, 2, 877-880.	9.1	45
20	Quantum Size Effects in Carbon Nanotube Intramolecular Junctions. <i>Nano Letters</i> , 2002, 2, 253-256.	9.1	45
21	Chemisorption and diffusion of atomic hydrogen in and on cluster models of palladium, rhodium and bimetallic palladium tin, rhodium tin, and rhodium zinc catalysts. <i>Journal of the American Chemical Society</i> , 1990, 112, 8239-8247.	13.7	41
22	Orientation and Conformation of Methyl Pyruvate on Ni(111). <i>Journal of the American Chemical Society</i> , 2000, 122, 518-524.	13.7	38
23	Cyclopropyl Species on Cu(110): Area Selective Activation of Adsorbed Cyclopropane Using a Dispersion Compensation HREELS Spectrometer. <i>Journal of the American Chemical Society</i> , 1994, 116, 5965-5966.	13.7	37
24	Electron Interference Effects on the Conductance of Doped Carbon Nanotubes. <i>Journal of Physical Chemistry A</i> , 2000, 104, 9807-9811.	2.5	37
25	Tailoring the Photoluminescence Properties of Ionic Iridium Complexes. <i>Journal of Physical Chemistry A</i> , 2009, 113, 534-541.	2.5	32
26	Self-assembly of Rubrene on Copper Surfaces. <i>Journal of Physical Chemistry C</i> , 2008, 112, 10214-10221.	3.1	31
27	Particle size effect in supported platinum: Methylcyclohexane dehydrogenation. <i>Journal of Catalysis</i> , 1992, 138, 482-490.	6.2	25
28	Competitive Hydrogen Bonding in π -Stacked Oligomers. <i>Advanced Materials</i> , 2007, 19, 1992-1995.	21.0	23
29	Influence of statistical distributions on the electrical properties of disordered and aligned carbon nanotube networks. <i>Journal of Applied Physics</i> , 2013, 114, 114312.	2.5	21
30	States Modulation in Graphene Nanoribbons through Metal Contacts. <i>ACS Nano</i> , 2013, 7, 5414-5420.	14.6	20
31	Parallel scanning tunneling microscopy imaging of low dimensional nanostructures. <i>Journal of Applied Physics</i> , 2008, 104, .	2.5	19
32	Resonant tunneling transport in highly organized oligoacene assemblies. <i>Organic Electronics</i> , 2007, 8, 1-7.	2.6	18
33	Stabilization of platinum nanoparticles on graphene by non-invasive functionalization. <i>Carbon</i> , 2009, 47, 2233-2238.	10.3	16
34	Metallacyclobutane and Cyclopropyl Species on Cu(111) and Cu(110). <i>Journal of the American Chemical Society</i> , 1998, 120, 2421-2427.	13.7	15
35	Hexaphenylbenzenes as Potential Acetylene Sponges. <i>Organic Letters</i> , 2010, 12, 380-383.	4.6	15
36	Engineering Homologous Molecular Organization in 2D and 3D. Cocrystallization of Pyridyl-Substituted Diaminotriazines with Alkanecarboxylic Acids. <i>Journal of Physical Chemistry C</i> , 2011, 115, 12908-12919.	3.1	15

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37	The Reconstruction of Supported Platinum Particles Monitored by Methylcyclohexane Dehydrogenation and H ₂ TPD. <i>Journal of Catalysis</i> , 1994, 145, 409-415.	6.2	14
38	Hydrogen bonding and π -stacking in highly organized arenes-based molecular wire. <i>Organic Electronics</i> , 2006, 7, 144-154.	2.6	12
39	Large-Scale Patterning of Zwitterionic Molecules on a Si(111)-7 \times 7 Surface. <i>ACS Nano</i> , 2011, 5, 424-428.	4.6	12
40	Role of the Structure and Reactivity of Cu and Ag Surfaces in the Formation of a 2D Metal π -Hexahydroxytriphenylene Network. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17333-17341.	3.1	12
41	Intrusive STM imaging. <i>Physical Review B</i> , 2011, 83, .	3.2	11
42	Electron percolation in realistic models of carbon nanotube networks. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	11
43	Formation of π -coupled organic wire on the Si(001)[2 \times 1] surface. <i>Chemical Physics Letters</i> , 2004, 400, 347-352.	2.6	10
44	Tailoring electronic and charge transport properties of molecular π -stacked heterojunctions. <i>Applied Physics Letters</i> , 2006, 89, 092115.	3.3	10
45	Tuning the Electronic Properties of a Boron-Doped Si(111) Surface by Self-Assembling of Trimesic Acid. <i>Journal of Physical Chemistry C</i> , 2015, 119, 15742-15748.	3.1	10
46	Bond selectivity in the dissociative adsorption of c-CH ₂ N ₂ on single crystals: a comparative DFT-LSD investigation for Pd(110) and Cu(110). <i>Surface Science</i> , 1996, 347, 11-24.	1.9	9
47	Facile Cyclization of Metallacyclobutane on Cu(110). <i>Journal of the American Chemical Society</i> , 1997, 119, 7881-7882.	13.7	8
48	Anisotropic growth of the thiophene-based layer on Si(111) π -B. <i>Chemical Communications</i> , 2014, 50, 5484-5486.	4.1	8
49	Interaction of atomic hydrogen with cluster models of Pd, Rh and bimetallic PdSn and RhSn catalysts. <i>Surface Science</i> , 1990, 235, L319-L323.	1.9	7
50	Interaction of bromocyclopropane with Cu(110). <i>Surface Science</i> , 1998, 414, 38-43.	1.9	7
51	Influence of Halogen Bonds on the Compactness of Supramolecular Assemblies on Si(111)-B. <i>Journal of Physical Chemistry C</i> , 2017, 121, 8427-8434.	3.1	7
52	Influence of Cu adatoms on the molecular assembly of 4,4'-bipyridine on Cu(111). <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 15350-15357.	2.8	7
53	Collective radical oligomerisation induced by an STM tip on a silicon surface. <i>Nanoscale</i> , 2021, 13, 349-354.	5.6	7
54	Controlling the magnetic properties of two-dimensional carbon-based Kagome polymers. <i>Carbon Trends</i> , 2022, 7, 100170.	3.0	7

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55	Bonding of $\hat{1}\pm$ -Dicarbonyls to Nickel: Structural and Vibrational Analysis. Journal of Physical Chemistry A, 2001, 105, 1320-1325.	2.5	6
56	Impact of nucleation on step-meandering instabilities during step-flow growth on vicinal surfaces. Physical Review E, 2014, 89, 032406.	2.1	6
57	Unravelling the growth mechanism of (3,1) graphene nanoribbons on a Cu(111) surface. Chemical Communications, 2021, 57, 6043-6045.	4.1	6
58	Irradiation-induced structural changes in hydrogenated amorphous silicon as measured by X-ray photoemission spectroscopy. Solar Energy Materials and Solar Cells, 2003, 78, 391-398.	6.2	5
59	Evidence for \hat{I} -Interactions in Stacked Polymers by STM Simulations. Journal of Physical Chemistry C, 2011, 115, 18625-18633.	3.1	5
60	Role of structural order at the P3HT/C60 heterojunction interface. Organic Electronics, 2014, 15, 2091-2098.	2.6	5
61	Electrostatic patterning on graphene with dipolar self-assembly. Physical Chemistry Chemical Physics, 2021, 23, 22014-22021.	2.8	5
62	Nanoscale adaptive meshing for rapid STM imaging. Journal of Computational Physics, 2008, 227, 6720-6726.	3.8	4
63	Effects of long jumps, reversible aggregation, and Meyer-Neldel rule on submonolayer epitaxial growth. Physical Review E, 2008, 78, 021604.	2.1	4
64	Quantum Size Effects of Ag _n Clusters on Carbon Nanotubes. Journal of Physical Chemistry C, 2019, 123, 28769-28776.	3.1	4
65	Collective Magnetism in 2D Polymer Made of \hat{C} -Doped Triangular Boron Nitride Nanoflakes. Advanced Theory and Simulations, 2021, 4, 2100028.	2.8	3
66	Les petites particules m \hat{A} talliques support \hat{A} es. Oil & Gas Science & Technology, 1991, 46, 221-249.	0.2	3
67	Large-extended 2D supramolecular network of dipoles with parallel arrangement on a Si(111) \hat{A} B surface. Nanoscale, 2020, 12, 17399-17404.	5.6	2
68	Electrical Properties of Carbon Nanotubes: Spectroscopy Localization and Electrical Breakdown. , 2002, , 223-237.		1
69	Band alignment engineering in organized rrP3HT/C60 bulk heterojunction. Organic Electronics, 2010, 11, 1991-1998.	2.6	1
70	Toward interactive scanning tunneling microscopy simulations of large-scale molecular systems in real time. Journal of Applied Physics, 2018, 124, .	2.5	1
71	Molecular Adsorption of Diazirine on Palladium (110) Cluster Models Using the LCGTO-MCP-LSD Method. , 1996, , 437-451.		1
72	Gas-phase measurement of oil-like vapor in SF ₆ using FTIR. , 0, , .		0

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73	The Effect of π -Coupling on the Electronic Properties of 1,4-Dithiol Benzene Stacking. , 0, , .		0