

Fabienne Berthier

List of Publications by Year in descending order

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74
all docs

74
docs citations

74
times ranked

661
citing authors

#	ARTICLE	IF	CITATIONS
1	Sensitivity analysis and uncertainty propagation for SMA-TB potentials. Computational Materials Science, 2022, 213, 111641.	1.4	1
2	Effective site energy and cluster expansion approaches for the study of phase diagrams. Physical Review B, 2021, 104, .	1.1	0
3	Tight-binding Ising modeling of the interplay between bulk ordering and surface segregation in Pt-Ag nanoalloys. Surface Science, 2020, 700, 121626.	0.8	6
4	Analysis of Au-Pd driving forces via the effective site energy model: LRO, antisites and enthalpy of permutation. Journal of Physics Condensed Matter, 2020, 32, 354001.	0.7	1
5	Ab initio thermodynamics of carbon segregation on dislocation cores in bcc iron. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 074002.	0.8	13
6	Order-disorder or phase-separation transition: Analysis of the Au-Pd system by the effective site energy model. Physical Review B, 2019, 99, .	1.1	8
7	Effective site-energy model: A thermodynamic approach applied to size-mismatched alloys. Physical Review B, 2017, 95, .	1.1	5
8	Stability Diagram of Janus and Core-Shell Configurations in Bimetallic Nanowires. Journal of Physical Chemistry C, 2016, 120, 22670-22680.	1.5	7
9	Phase diagrams of nanoalloys: influence of size and morphology. Physical Chemistry Chemical Physics, 2015, 17, 28347-28353.	1.3	11
10	Ageing of out-of-equilibrium nanoalloys by a kinetic mean-field approach. Physical Chemistry Chemical Physics, 2015, 17, 28193-28199.	1.3	10
11	AuNi alloy monolayer films electrodeposited on Au(111): An in situ STM study. Surface Science, 2013, 607, 25-32.	0.8	7
12	Segregation in bimetallic nanowires: Size and thermodynamic ensemble effects. Physical Review B, 2012, 86, .	1.1	2
13	Segregation and Phase Transitions in Reduced Dimension: From Bulk to Clusters via Surfaces. Engineering Materials, 2012, , 227-257.	0.3	3
14	Extending cluster description to bimetallic nanowires: The ideal solid solution alloy case. Journal of Chemical Physics, 2011, 135, 224702.	1.2	0
15	Extending cluster dynamics to concentrated and disordered alloys: The linear-chain case. Acta Materialia, 2010, 58, 2387-2398.	3.8	13
16	Reliable Discrimination of Models Based on EIS Data. Journal of the Electrochemical Society, 2009, 156, J81.	1.3	0
17	Effect of a size mismatch on bulk and surface alloy interactions: The illustrative example of the Cu-Ag system. Surface Science, 2008, 602, 1903-1915.	0.8	10
18	Dynamical equilibrium in nanoalloys. Faraday Discussions, 2008, 138, 105-117.	1.6	20

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19	Model of surface segregation driving forces and their coupling. Physical Review B, 2008, 78, .	1.1	29
20	Superficial segregation, wetting, and dynamical equilibrium in bimetallic clusters: A Monte Carlo study. Physical Review B, 2008, 78, .	1.1	36
21	Reply to comment on 19 Use of a variable-charge interatomic potential for atomistic simulations of bulk, oxygen vacancies, and surfaces of rutile TiO_2 . Physical Review B, 2007, 76, .	1.1	2
22	Use of a variable-charge interatomic potential for atomistic simulations of bulk, oxygen vacancies, and surfaces of rutile TiO_2 . Physical Review B, 2006, 73, .	1.1	61
23	Site segregation in size-mismatched nanoalloys: Application to Cu-Ag. Surface Science, 2006, 600, 5011-5020.	0.8	38
24	Superficial segregation in nanoparticles: From facets to infinite surfaces. Journal of Chemical Physics, 2006, 125, 094707.	1.2	27
25	Complete miscibility between different crystallographic structures: Monte Carlo simulations of Cu-Ag deposited on Cu(001). Physical Review B, 2006, 74, .	1.1	10
26	Drastic changes for segregation and wetting between flat and vicinal surfaces of binary alloys. Surface Science, 2004, 553, 168-180.	0.8	2
27	Atomistic investigation of the Kolmogorov-Johnson-Mehl-Avrami law in electrodeposition process. Journal of Electroanalytical Chemistry, 2004, 561, 37-52.	1.9	20
28	Ag/Cu (001) electrodeposition: beyond the classical nucleation theory. Journal of Electroanalytical Chemistry, 2004, 562, 127-134.	1.9	18
29	Study of the forced Ni 1 M H ₂ SO ₄ oscillator. Journal of Electroanalytical Chemistry, 2004, 572, 267-281.	1.9	9
30	Voltammetry and electrodeposition in the presence of attractive interactions: I. a mean-field approach. Journal of Electroanalytical Chemistry, 2004, 573, 365-376.	1.9	7
31	Voltammetry and electrodeposition in the presence of attractive interactions: II. from Monte Carlo simulations to the KJMA-ECNT approach. Journal of Electroanalytical Chemistry, 2004, 573, 377-389.	1.9	7
32	Unexpected profiles of surface segregation vibrational entropies. Surface Science, 2003, 526, 121-132.	0.8	8
33	Ségrégation interfaciale et rupture: l'apport d'une approche atomistique mixte. European Physical Journal Special Topics, 2003, 106, 13-22.	0.2	0
34	Cu-Ag (111) Polymorphism Induced by Segregation and Advacancies. Physical Review Letters, 2003, 91, 176103.	2.9	22
35	Multilayer properties of superficial and intergranular segregation isotherms: A mean-field approach. Physical Review B, 2002, 65, .	1.1	18
36	Misfit dislocation loops or incommensurate structure at an interface: Vibrational and anharmonic effects. Physical Review B, 2002, 66, .	1.1	12

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37	An "inverse" growth of Ag(111) on Cu(001) obtained by superficial segregation. <i>Surface Science</i> , 2001, 491, L651-L656.	0.8	9
38	Phase transition induced by superficial segregation: the respective role of the size mismatch and of the chemistry. <i>Surface Science</i> , 2001, 491, 1-16.	0.8	17
39	Structural phase transition induced by interfacial segregation: a comparison between surface and grain boundary. <i>Applied Surface Science</i> , 2001, 177, 243-251.	3.1	14
40	Numerical solution of coupled systems of ordinary and partial differential equations. Application to the study of electrochemical insertion reactions by linear sweep voltammetry. <i>Journal of Electroanalytical Chemistry</i> , 2001, 502, 126-131.	1.9	10
41	Distinguishability of equivalent circuits containing CPEs. <i>Journal of Electroanalytical Chemistry</i> , 2001, 510, 1-11.	1.9	51
42	Vacancy Segregation at Surface Grain Boundaries and their Intersection: an Atomistic Study. <i>Defect and Diffusion Forum</i> , 2001, 194-199, 1217-1222.	0.4	5
43	Wetting and Structural Transition Induced by Segregation at Grain Boundaries: A Monte Carlo Study. <i>Physical Review Letters</i> , 2001, 86, 5735-5738.	2.9	31
44	Guaranteed estimation of electrochemical parameters by set inversion using interval analysis. <i>Journal of Electroanalytical Chemistry</i> , 2000, 495, 1-9.	1.9	21
45	New Structures and Atomistic Analysis of the Polymorphism for the $\alpha = 5$ (210) [001] Tilt Boundary. <i>Journal of Materials Science</i> , 2000, 8, 55-69.	1.2	17
46	Intergranular segregation and vibrational effects: A local analysis. <i>Physical Review B</i> , 2000, 61, 14470-14480.	1.1	22
47	Intergranular segregation and ordering effect: A mixed Monte Carlo mean-field approach. <i>Physical Review B</i> , 2000, 62, 2813-2824.	1.1	56
48	Segregation and 2D-Compound in a Grain Boundary: An Exotic Behaviour. <i>Materials Science Forum</i> , 1999, 294-296, 423-426.	0.3	5
49	Discontinuous immittance due to a saddle node bifurcation. <i>Journal of Electroanalytical Chemistry</i> , 1999, 460, 226-233.	1.9	4
50	How to compare superficial and intergranular segregation? A new analysis within the mixed SMA "TBIM approach. <i>Acta Materialia</i> , 1999, 47, 2705-2715.	3.8	63
51	Hopf bifurcation and sign of the transfer resistance. <i>Electrochimica Acta</i> , 1999, 44, 2397-2404.	2.6	30
52	Ordre intergranulaire et d'accommodation de volume : une étonnante coexistence. <i>European Physical Journal Special Topics</i> , 1999, 09, Pr4-51-Pr4-56.	0.2	0
53	Discontinuous immittance due to a saddle node bifurcation. <i>Journal of Electroanalytical Chemistry</i> , 1998, 458, 231-240.	1.9	13
54	Correlation between electrochemical characteristics and microstructures of nickel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1998, 249, 158-166.	2.6	11

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55	Diagrammes d'impédance discontinus pour la réaction de Volmer-Heyrovsky. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1998, 95, 1101-1117.	0.2	3
56	On the nature of the spontaneous oscillations observed for the Koper-Sluyters electrocatalytic reaction. Journal of Electroanalytical Chemistry, 1997, 436, 35-42.	1.9	14
57	Mesure de la pulsation propre de Hopf par spectroscopie d'impédance électrochimique : application à la dissolution transpassive du nickel. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1997, 94, 1763-1778.	0.2	9
58	Identifiability and distinguishability concepts in electrochemistry. Automatica, 1996, 32, 973-984.	3.0	33
59	Bifurcation analysis for the Volmer-Heyrovsky mechanism. Journal of Electroanalytical Chemistry, 1996, 402, 29-35.	1.9	23
60	Discontinuous impedance near a saddle-node bifurcation. Journal of Electroanalytical Chemistry, 1996, 410, 247-249.	1.9	13
61	Intergranular Segregation in Cu(Ag) and Ag(Cu) Systems: Analysis of the Driving Force Using a Tight-Binding Scheme. Materials Science Forum, 1996, 207-209, 701-704.	0.3	4
62	Study of the microstructure of a Ni(100) single crystal grown by electron beam floating zone melting. Journal of Crystal Growth, 1995, 156, 480-486.	0.7	5
63	Choice of experimental method induced by structural properties of mechanisms. Journal of Electroanalytical Chemistry, 1995, 399, 1-6.	1.9	8
64	Method for Determining the Faradaic Impedance of an Electrode Reaction: Application to Metal Corrosion Rate Measurements. Corrosion, 1995, 51, 105-115.	0.5	18
65	Identifiability and Distinguishability Concepts in Electrochemistry. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1994, 27, 995-1000.	0.4	0
66	Steady-state investigation and electrochemical impedance spectroscopy: Identifiability and distinguishability of metal dissolution and passivation mechanisms. Journal of Electroanalytical Chemistry, 1993, 362, 13-20.	1.9	23
67	Correlation between the Electrochemical Behavior and the Surface Energy of Single Nickel Crystals. Materials Science Forum, 1993, 126-128, 503-506.	0.3	1
68	Sur l'identifiabilité structurelle de la réaction de Volmer-Heyrovsky. Journal De Chimie Physique Et De Physico-Chimie Biologique, 1993, 90, 2069-2081.	0.2	15
69	The instantaneous impedance of non-stationary electrochemical systems: application to a corroding zinc electrode. Corrosion Science, 1990, 30, 239-247.	3.0	13
70	Magic Numbers for Bimetallic Clusters. Solid State Phenomena, 0, 172-174, 1038-1043.	0.3	2
71	Equilibrium Distribution of Alloyed Nanowires. Solid State Phenomena, 0, 172-174, 676-681.	0.3	1
72	Multiscale Modelling of the Ageing Kinetics of a 2D Deposit. Solid State Phenomena, 0, 172-174, 664-669.	0.3	1

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73	Superficial Phase Transitions in Nanoalloys. Solid State Phenomena, 0, 172-174, 658-663.	0.3	4