Leonid Rubinovich

List of Publications by Year
in descending order

40	677	623734	552781
papers	citations	14 h-index	26 g-index

40	40	40	583
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Unraveling the Distinct Relationship between the Extent of a Nanoconfined Reaction and the Equilibrium Constant. Journal of Physical Chemistry C, 2021, 125, 452-457.	3.1	3
2	Adsorption under nanoconfinement: a theoreticalâ€“computational study revealing significant enhancement beyond the Langmuirian levels. Physical Chemistry Chemical Physics, 2020, 22, 19600-19605.	2.8	5
3	Thermal properties and segregation phenomena in transition metals and alloys: modeling based on modified cohesive-energies. Journal of Physics Condensed Matter, 2019, 31, 215402.	1.8	1
4	Stochastic Kinetics and Equilibrium of Nanoconfined Reactions. Journal of Physical Chemistry C, 2019, 123, 24949-24956.	3.1	5
5	Remarkable NanoConfinement Effects on Equilibrated Reactions: Statistical-Mechanics Modeling Focused on Ir Dimerization Beneath Surface Sites in Pdâ€“Ir Nanoparticles. Topics in Catalysis, 2018, 61, 1237-1246.	2.8	6
6	Nano-size scaling of alloy intra-particle vs. inter-particle separation transitions: prediction of distinctly interface-affected critical behaviour. Physical Chemistry Chemical Physics, 2016, 18, 18391-18397.	2.8	1
7	Thermally-induced chemical-order transitions in mediumâ€“large alloy nanoparticles predicted using a coarse-grained layer model. Physical Chemistry Chemical Physics, 2015, 17, 28211-28218.	2.8	6
8	Nanoconfined nitrogen hydrogenation on Ru(0001): Prediction of entropy related shifts in the reaction equilibria. Surface Science, 2015, 641, 294-299.	1.9	2
9	Comparative modelling of chemical ordering in palladium-iridium nanoalloys. Journal of Chemical Physics, 2014, 141, 224307.	3.0	23
10	Stabilization and transformation of asymmetric configurations in small-mismatch alloy nanoparticles: the role of coordination dependent energetics. Physical Chemistry Chemical Physics, 2014, 16, 1569-1575.	2.8	21
11	The Intrinsic Role of Nanoconfinement in Chemical Equilibrium: Evidence from DNA Hybridization. Nano Letters, 2013, 13, 2247-2251.	9.1	36
12	Effects of Surfaceâ€“Subsurface Bond-Energy Variations on Equilibrium Compositional Structures Evaluated for Ptâ€“Ir Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 26000-26005.	3.1	9
13	Remarkable nanoconfinement effects on chemical equilibrium manifested in nucleotide dimerization and Hâ€“D exchange reactions. Physical Chemistry Chemical Physics, 2011, 13, 16728.	2.8	15
14	Patchy Multishell Segregation in Pdâˆ’Pt Alloy Nanoparticles. Nano Letters, 2011, 11, 1766-1769.	9.1	94
15	Coordination-dependent bond energies derived from DFT surface-energy data for use in computations of surface segregation phenomena in nanoclusters. International Journal of Nanotechnology, 2011, 8, 898.	0.2	2
16	Prediction of distinct surface segregation effects due to coordination-dependent bond-energy variations in alloy nanoclusters. Physical Review B, 2009, 80, .	3.2	28
17	On the use of corrected cohesion energies in model computations of transition metal properties: The case of Ptâ€“Rh cluster compositional structures. Surface Science, 2008, 602, 1040-1044.	1.9	17
18	Nanochemical Equilibrium Involving a Small Number of Molecules: A Prediction of a Distinct Confinement Effect. Nano Letters, 2008, 8, 3543-3547.	9.1	33

#	Article	IF	Citations
19	Modeling effects of subsurface tension on segregation:Pt25Rh75(111)oscillatory profile used as a test case. Physical Review B, 2007, 75, .	3.2	9
20	Compositional structures and thermodynamic properties of Pd-Cu, Rh-Pd, and Rh-Pd-Cu nanoclusters computed by a combined free-energy concentration expansion method and tight-binding approach. Physical Review B, 2006, 74, .	3.2	22
21	Prediction of compositional ordering and separation in alloy nanoclusters. Surface Science, 2005, 584, 41-48.	1.9	25
22	A conductance model for kinetics studies when more than two phases are involved. Physica B: Condensed Matter, 2005, 355, 106-115.	2.7	2
23	Prediction of intercluster separation and Schottky-type heat-capacity contribution in surface-segregated binary and ternary alloy nanocluster systems. Physical Review B, 2005, 71, .	3.2	25
24	Site-specific segregation and compositional ordering in Ni-based ternary alloy nanoclusters computed by the free-energy concentration expansion method. Physical Review B, 2004, 69, .	3.2	27
25	On interatomic mixing and demixing phenomena in Crâ€“Fe: statisticalâ€“mechanical calculations based on composition-dependent interaction energy model. Applied Surface Science, 2003, 219, 191-197.	6.1	0
26	Effects of composition-dependent interatomic interactions on alloying at the Cr/Fe(100) interface. Physical Review B, 2002, 65, .	3.2	8
27	Alloy surface segregation and ordering phenomena: recent progress. Chemical Physics of Solid Surfaces, 2002, 10, 86-117.	0.3	1
28	The competition between surface segregation and compositional ordering in alloys: theory and experimental observations of segregation versus temperature peaked curves. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 208, 211-218.	4.7	1
29	Extension of the free-energy concentration expansion method to surface segregation in multi-component alloys and its application to Niâ€“Alâ€“Cu. Surface Science, 2002, 513, 119-126.	1.9	11
30	The interplay of surface segregation and atomic order in alloys. Surface Science Reports, 2000, 38, 127-194.	7.2	149
31	On the estimation of SRO effects on surface segregation. Journal of Physics Condensed Matter, 1999, 11, 9901-9906.	1.8	14
32	On the surface composition of intermetallic compounds: the case of MgNi2. Surface Science, 1998, 418, L53-L57.	1.9	6
33	Evidence for Significant Short-Range Order Effects on Surface Segregation in Ni-Al Solid Solution. Physical Review Letters, 1997, 78, 1058-1061.	7.8	27
34	Evaluation of basic surface segregation trends induced by short-range order in solid solutions. Surface Science, 1997, 377-379, 1019-1022.	1.9	10
35	Quenching of enhanced magnetic order at Niî—¸Al alloy surfaces by segregated sulfur and by Ar+ impact. Surface Science, 1996, 357-358, 381-385.	1.9	1
36	Observation of Highly Enhanced Curie Temperature at Ni-Al Alloy Surfaces. Physical Review Letters, 1995, 74, 4059-4062.	7.8	30

#	Article	IF	Citations
37	Study of the phase transitions b2-a2 and B32-A2 in alloys using the modified Kirkwood method. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1989, 32, 588-592.	0.0	1
38	Application of finite statistical ensembles in atomic ordering theory. Soviet Physics Journal (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.0	0
39	Calculation of the long-range order parameter in a B2 super-lattice using high-temperature expansions. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii,) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	1
40	High-temperature expansions in statistical theory of atomic ordering. Soviet Physics Journal (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.0	0