

Valeriu Chirita

List of Publications by Year in descending order

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papers

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687363

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19
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19
times ranked

438
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical properties of VMoNO as a function of oxygen concentration: Toward development of hard and tough refractory oxynitrides. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	1
2	TiN film growth on misoriented TiN grains with simultaneous low-energy bombardment: Restructuring leading to epitaxy. Thin Solid Films, 2019, 688, 137380.	1.8	7
3	Effects of surface vibrations on interlayer mass transport: <i>Ab initio</i> molecular dynamics investigation of Ti adatom descent pathways and rates from TiN/TiN(001) islands. Physical Review B, 2018, 97, .	3.2	21
4	Effects of incident N atom kinetic energy on TiN/TiN(001) film growth dynamics: A molecular dynamics investigation. Journal of Applied Physics, 2017, 121, .	2.5	31
5	Large-scale molecular dynamics simulations of TiN/TiN(001) epitaxial film growth. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	2.1	30
6	Ab Initio Molecular Dynamics Simulations of Nitrogen/VN(001) Surface Reactions: Vacancy-Catalyzed N ₂ Dissociative Chemisorption, N Adatom Migration, and N ₂ Desorption. Journal of Physical Chemistry C, 2016, 120, 12503-12516.	3.1	39
7	N and Ti adatom dynamics on stoichiometric polar TiN(111) surfaces. Surface Science, 2016, 649, 72-79.	1.9	32
8	The dynamics of TiN _x (x = 1-3) ad molecule interlayer and intralayer transport on TiN/TiN(001) islands. Thin Solid Films, 2015, 589, 133-144.	1.8	12
9	Effect of WN content on toughness enhancement in V _{1-x} W _x N/MgO(001) thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	45
10	Ti adatom diffusion on TiN(001): Ab initio and classical molecular dynamics simulations. Surface Science, 2014, 627, 34-41.	1.9	40
11	Ab initio and classical molecular dynamics simulations of N ₂ desorption from TiN(001) surfaces. Surface Science, 2014, 624, 25-31.	1.9	52
12	Ti and N adatom descent pathways to the terrace from atop two-dimensional TiN/TiN(001) islands. Thin Solid Films, 2014, 558, 37-46.	1.8	29
13	Toughness enhancement in hard ceramic thin films by alloy design. APL Materials, 2013, 1, .	5.1	109
14	Dynamics of Ti, N, and TiN ad molecule transport on TiN(001) surfaces. Physical Review B, 2012, 86, .	3.2	47
15	Missing-atom structure of diamond(111) twist grain boundary. Physical Review B, 2011, 84, .	3.2	2
16	Structure and mechanical properties of TiAlN-WN _x thin films. Surface and Coatings Technology, 2011, 205, 4821-4827.	4.8	47
17	Effect of chemical composition on the elastic and electrical properties of the boron-oxygen-yttrium system studied by ab initio and experimental means. Physical Review B, 2004, 69, .	3.2	1
18	Quantum design and synthesis of a boron-oxygen-yttrium phase. Applied Physics Letters, 2003, 82, 4286-4288.	3.3	1

#	ARTICLE	IF	CITATIONS
19	Elastic modulus of amorphous boron suboxide thin films studied by theoretical and experimental methods. Journal of Applied Physics, 2003, 93, 940-944.	2.5	18