

# Naureen Ghafoor

## List of Publications by Year in descending order

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50  
papers

1,183  
citations

361413

20  
h-index

395702

33  
g-index

50  
all docs

50  
docs citations

50  
times ranked

939  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving thermal stability of hard coating films via a concept of multicomponent alloying. Applied Physics Letters, 2011, 99, .	3.3	95
2	Layer formation by resputtering in Tiâ€“Siâ€“C hard coatings during large scale cathodic arc deposition. Surface and Coatings Technology, 2011, 205, 3923-3930.	4.8	83
3	Cluster formation at the Si/liquid interface in Sr and Na modified Alâ€“Si alloys. Scripta Materialia, 2016, 117, 16-19.	5.2	74
4	Effects of Ti alloying of AlCrN coatings on thermal stability and oxidation resistance. Thin Solid Films, 2013, 534, 394-402.	1.8	59
5	Comparison of segregations formed in unmodified and Sr-modified Alâ€“Si alloys studied by atom probe tomography and transmission electron microscopy. Journal of Alloys and Compounds, 2014, 611, 410-421.	5.5	59
6	Tuning hardness and fracture resistance of ZrN/Zr <sub>0.63</sub> Al <sub>0.37</sub> N nanoscale multilayers by stress-induced transformation toughening. Acta Materialia, 2015, 89, 22-31.	7.9	57
7	Decomposition and phase transformation in TiCrAlN thin coatings. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	44
8	Growth and thermal stability of TiN/ZrAlN: Effect of internal interfaces. Acta Materialia, 2016, 121, 396-406.	7.9	44
9	Interface engineering of short-period Ni/V multilayer X-ray mirrors. Thin Solid Films, 2006, 500, 84-95.	1.8	36
10	Atomic scale interface engineering by modulated ion-assisted deposition applied to soft x-ray multilayer optics. Applied Optics, 2008, 47, 4196.	2.1	36
11	Nanolabyrinthine ZrAlN thin films by self-organization of interwoven single-crystal cubic and hexagonal phases. APL Materials, 2013, 1, .	5.1	35
12	Microstructure and materials properties of understoichiometric TiB <sub>x</sub> thin films grown by HiPIMS. Surface and Coatings Technology, 2020, 404, 126537.	4.8	33
13	Structure, deformation and fracture of arc evaporated Zrâ€“Siâ€“N hard films. Surface and Coatings Technology, 2014, 258, 1100-1107.	4.8	31
14	Adhesive-deformation relationships and mechanical properties of nc-AlCrN/a-SiN <sub>x</sub> hard coatings deposited at different bias voltages. Thin Solid Films, 2018, 650, 11-19.	1.8	31
15	Incorporation of nitrogen in Crâ€“Sc multilayers giving improved soft x-ray reflectivity. Applied Physics Letters, 2008, 92, .	3.3	29
16	Self-organized anisotropic (Zr <sub>1-x</sub> Si <sub>x</sub> )N nanocomposites grown by reactive sputter deposition. Acta Materialia, 2015, 82, 179-189.	7.9	27
17	Exploring the high entropy alloy concept in (AlTiVNbCr)N. Thin Solid Films, 2017, 636, 346-352.	1.8	27
18	Influence of chemical composition and deposition conditions on microstructure evolution during annealing of arc evaporated ZrAlN thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	26

#	ARTICLE	IF	CITATIONS
19	Eutectic modification by ternary compound cluster formation in Al-Si alloys. Scientific Reports, 2019, 9, 5506.	3.3	26
20	Thermal stability of wurtzite $Zr_{1-x}Al_xN$ coatings studied by <i>in situ</i> high-energy x-ray diffraction during annealing. Journal of Applied Physics, 2015, 118, .	2.5	20
21	Characterization of worn Ti-Si cathodes used for reactive cathodic arc evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2010, 28, 347-353.	2.1	19
22	Ti-Si-C-N thin films grown by reactive arc evaporation from $Ti_3SiC_2$ cathodes. Journal of Materials Research, 2011, 26, 874-881.	2.6	19
23	3D Microstructure Characterization and Analysis of Al-Si Foundry Alloys at Different Length Scales. Microscopy and Microanalysis, 2014, 20, 956-957.	0.4	19
24	Interface engineered ultrashort period Cr-Ti multilayers as high reflectance mirrors and polarizers for soft x rays of $\lambda = 274$ nm wavelength. Applied Optics, 2006, 45, 137.	2.1	18
25	Reflectivity and structural evolution of Cr/Sc and nitrogen containing Cr/Sc multilayers during thermal annealing. Journal of Applied Physics, 2008, 104, .	2.5	18
26	Single crystal CrN/ScN superlattice soft X-ray mirrors: Epitaxial growth, structure, and properties. Thin Solid Films, 2006, 514, 10-19.	1.8	16
27	Arc deposition of Ti-Si-C-N thin films from binary and ternary cathodes – Comparing sources of C. Surface and Coatings Technology, 2012, 213, 145-154.	4.8	15
28	Impact of B <sub>2</sub> C co-sputtering on structure and optical performance of Cr/Sc multilayer X-ray mirrors. Optics Express, 2017, 25, 18274.	3.4	15
29	High temperature phase decomposition in $Ti_xZr_yAl_zN$ . AIP Advances, 2014, 4, .	1.3	13
30	Effects of ion-assisted growth on the layer definition in Cr/Sc multilayers. Thin Solid Films, 2008, 516, 982-990.	1.8	12
31	Auto-organizing ZrAlN/ZrAlTiN/TiN multilayers. Thin Solid Films, 2012, 520, 6451-6454.	1.8	11
32	Self-organization during growth of ZrN/SiN <sub>x</sub> multilayers by epitaxial lateral overgrowth. Journal of Applied Physics, 2013, 114, 224302.	2.5	11
33	Industry-relevant magnetron sputtering and cathodic arc ultra-high vacuum deposition system for <i>in situ</i> x-ray diffraction studies of thin film growth using high energy synchrotron radiation. Review of Scientific Instruments, 2015, 86, 095113.	1.3	11
34	Effects of O and N impurities on the nanostructural evolution during growth of Cr/Sc multilayers. Journal of Materials Research, 2009, 24, 79-95.	2.6	10
35	Microstructure evolution of $Ti_3SiC_2$ compound cathodes during reactive cathodic arc evaporation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, 031601.	2.1	10
36	Coherency strain engineered decomposition of unstable multilayer alloys for improved thermal stability. Journal of Applied Physics, 2013, 114, .	2.5	10

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37	Anomalous epitaxial stability of (001) interfaces in ZrN/SiNx multilayers. APL Materials, 2014, 2, 046106.	5.1	10
38	Self-organized nanostructuring in Zr <sub>0.69</sub> Al <sub>0.31</sub> N thin films studied by atom probe tomography. Thin Solid Films, 2016, 615, 233-238.	1.8	10
39	Influence of microstructure and mechanical properties on the tribological behavior of reactive arc deposited Zr-Si-N coatings at room and high temperature. Surface and Coatings Technology, 2016, 304, 393-400.	4.8	10
40	Characterization of DLC coatings over nitrided stainless steel with and without nitriding pre-treatment using annealing cycles. Journal of Materials Research and Technology, 2019, 8, 1653-1662.	5.8	10
41	Effects of decomposition route and microstructure on h-AlN formation rate in TiCrAlN alloys. Journal of Alloys and Compounds, 2017, 691, 1024-1032.	5.5	9
42	Self-structuring in Zr <sub>1-x</sub> Al <sub>x</sub> N films as a function of composition and growth temperature. Scientific Reports, 2018, 8, 16327.	3.3	9
43	Rhombohedral boron nitride epitaxy on ZrB <sub>2</sub> . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	7
44	Nanostructuring and coherency strain in multicomponent hard coatings. APL Materials, 2014, 2, 116104.	5.1	6
45	Decomposition routes and strain evolution in arc deposited TiZrAlN coatings. Journal of Alloys and Compounds, 2019, 779, 261-269.	5.5	6
46	Interface bonding of $Zr_{1-x}Al_xN$ multilayers. Journal of Alloys and Compounds, 2019, 779, 261-269.	5.5	6
47	Phase evolution of radio frequency magnetron sputtered Cr-rich (Cr,Zr)O <sub>3</sub> coatings studied by in situ synchrotron X-ray diffraction during annealing in air or vacuum. Journal of Materials Research, 2019, 34, 3735-3746.	2.6	2
48	Ion-assisted magnetron sputter deposition of B <sub>4</sub> C-doped Ni/Ti multilayer mirrors. , 2018, , .		1
49	Novel Fabrication Technology for Clamped Micron-Thick Titanium Diaphragms Used for the Packaging of an Implantable MEMS Acoustic Transducer. Micromachines, 2022, 13, 74.	2.9	1
50	Carbon Based Coatings Deposited on Nitrided Stainless Steel: Study of Thermal Degradation. Minerals, Metals and Materials Series, 2017, , 57-66.	0.4	0