

CITATION REPORT

List of articles citing

An improved technique for determining hardness and elastic modulus using load and displacement sensing indentation experiments

DOI: 10.1557/jmr.1992.1564

Journal of Materials Research, 1992, 7, 1564-1583.

Source: <https://exaly.com/paper-pdf/23225772/citation-report.pdf>

Version: 2024-04-26

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
2215	Physico-chemical material properties and analysis techniques relevant in high-throughput biomaterials research. 13-30		
2214	Synthesis of Diamondoid and Lonsdaleite Networks from the Same Ag(I)Ligand Combination, with Lonsdaleite the Softer Network.		
2213	Synthesis and Properties of a Lead-Free Hybrid Double Perovskite: (CH ₃ NH ₃) ₂ AgBiBr ₆ .		
2212	Quantifying the Exfoliation Ease Level of 2D Materials via Mechanical Anisotropy.		
2211	Chemically Heterogeneous Nanowrinkling of Polymer Surfaces Induced by Low-Energy Cluster Implantation.		
2210	Synergistic Effect of Granular Seed Substrates and Soluble Additives in Structural Control of Prismatic CaCO ₃ Thin Films.		
2209	Gradient Mechanical Properties Facilitate Arabidopsis Trichome as Mechanosensor.		
2208	Self-Standing Polypyrrole/Black Phosphorus Laminated Film: Promising Electrode for Flexible Supercapacitor with Enhanced Capacitance and Cycling Stability.		
2207	Elucidating the Variable-Temperature Mechanical Properties of a Negative Thermal Expansion MetalOrganic Framework.		
2206	Biomimetic Tooth Repair: Amelogenin-Derived Peptide Enables in Vitro Remineralization of Human Enamel.		
2205	Enhanced Dynamics of Confined Polymers near the Immiscible PolymerPolymer Interface: Neutron Reflectivity Studies.		
2204	Subnanometer Two-Dimensional Graphene Oxide Channels for Ultrafast Gas Sieving.		
2203	Below the HallPetch Limit in Nanocrystalline Ceramics.		
2202	A Metal Salt Dependent Self-Healing Response in Supramolecular Block Copolymers.		
2201	Formation of Magnesium Dendrites during Electrodeposition.		
2200	Crystal Transformation from the Incorporation of Coordinate Bonds into a Hydrogen-Bonded Network Yields Robust Free-Standing Supramolecular Membranes.		
2199	Metal Ion Mediated Cellulose Nanofibrils Transient Network in Covalently Cross-linked Hydrogels: Mechanistic Insight into Morphology and Dynamics.		

2198 Discovery of Ultra-Crack-Resistant Oxide Glasses with Adaptive Networks.

2197 Some Electrical Properties of ZnGeP₂ Crystals. **1972**, 11, 103-106 17

2196 The atomic and electronic structure of a (001) tilt grain boundary in Si. **1988**, 21, 3205-3215 66

2195 Waveguide CO₂ laser utilizing the sequence bands obtained by transverse rf excitation through a dielectric. **1989**, 19, 308-310 3

2194 Measurement of Mechanical Properties of Thin Solid Films I: Hardness, Elasticity and Stress. **1992**, 275-294 3

2193 Mechanical properties and microstructures of metal/ceramic microlaminates: Part I. Nb/MoSi₂ systems. *Journal of Materials Research*, **1992**, 7, 2765-2773 2.5 38

2192 The determination of film hardness from the composite response of film and substrate to nanometer scale indentations. *Journal of Materials Research*, **1992**, 7, 3056-3064 2.5 117

2191 Mechanical properties and microstructures of metal/ceramic microlaminates: Part II. A Mo/Al₂O₃ system. *Journal of Materials Research*, **1992**, 7, 2774-2784 2.5 35

2190 Amorphous Diamond Films Produced By Laser Ablation. **1992**, 285, 547 9

2189 Measurement of Thin Film Mechanical Properties Using Nanoindentation. **1992**, 17, 28-33 647

2188 A new bulge test technique for the determination of Young's modulus and Poisson's ratio of thin films. *Journal of Materials Research*, **1992**, 7, 3242-3249 2.5 541

2187 Using nanoindentation techniques for the characterization of coated systems: a critique. **1993**, 61, 201-208 153

2186 The effect of coating density on the strain tolerance of corrosion resistant amorphous silica. **1993**, 56, 267-272 6

2185 Friction and wear behaviour of amorphous hydrogenated Si_{1-x}C_x films. **1993**, 62, 577-582 23

2184 Mechanical properties of heat treated and worn PVD TiN, (Ti, Al)N, (Ti, Nb)N and Ti(C, N) coatings as measured by nanoindentation. **1993**, 224, 168-176 59

2183 Acoustic microscopy of ceramic-fibre composites. **1993**, 28, 3645-3652 14

2182 Superhardness effect in Au/Ni multilayers. **1993**, 126, 185-191 21

2181 Ion beam application for improved polymer surface properties. **1993**, 74, 326-330 85

2180	Three-dimensional finite element simulation of Vickers indentation on coated systems. 1993 , 163, 43-50		34
2179	Use of nanoindentation to assess potential attrition of particulate solids. 1993 , 26, 305-310		15
2178	Difficulties in estimating the rheological properties of diamond-like films by means of nanoindentation tests. 1993 , 229, 83-92		21
2177	Interpretation of monotonic, ultra-low-load indentation tests of hard materials. 1993 , 29, 1615-1620		2
2176	Measurement of the cyclic plastic strength of hard materials with ultra-low-load indentation tests. 1993 , 29, 1609-1613		3
2175	Micromechanical properties of diamond films deposited by microwave-plasma-enhanced chemical vapour deposition. 1993 , 2, 933-938		9
2174	Continuous microindentation of passivating surfaces. <i>Journal of Materials Research</i> , 1993 , 8, 685-688	2.5	66
2173	Hardness measurements of Ar ⁺ -beam treated polyimide by depth-sensing ultra low load indentation. <i>Journal of Materials Research</i> , 1993 , 8, 377-387	2.5	81
2172	Energy principle of indentation contact: The application to sapphire. <i>Journal of Materials Research</i> , 1993 , 8, 1068-1078	2.5	38
2171	Microscopy and microindentation mechanics of single crystal Fe ₃ B wt. % Si: Part I. Atomic force microscopy of a small indentation. <i>Journal of Materials Research</i> , 1993 , 8, 1291-1299	2.5	91
2170	Indentation modulus of elastically anisotropic half spaces. 1993 , 67, 1045-1056		236
2169	Measurement methods in surface engineering. 1993 , 9, 293-299		10
2168	LPCVD of Silicon Carbide films from the Organosilanes Diethylsilane and Di-T-Butylsilane. 1993 , 306, 219		
2167	A Simple Method for Determination of the Elastic Modulus of Thin Films on a Substrate. 1993 , 308, 177		15
2166	Study of Bulk and Film-Substrate Composite Materials Behaviour under Vickers Indentation by Three-Dimensional Finite Element Simulation. 1993 , 308, 183		3
2165	Effect of the Substrate on Microindentation Behavior. 1993 , 308, 189		
2164	The Analysis of Depth-Sensing Indentation Data. 1993 , 308, 209		7
2163	The Analysis of Depth-Sensing Indentation Data: Review of the Special Discussion Session. 1993 , 308, 217		7

2162	Continuous Microindentation of Passivated Surfaces in Surface Active Media. 1993 , 308, 543		2
2161	Mechanical Properties of Excimer Laser Modified Titanium Surfaces. 1993 , 308, 549		
2160	Stress, Mechanical Properties and Composition Measurements in Sputtered Thick Alumina Films. 1993 , 308, 595		2
2159	The Role of Indentation Depth on the Measured Hardness of Materials. 1993 , 308, 613		158
2158	The Structure and Mechanical Properties of Ru-Cu and Ru-Ti Nanolayer Composites. 1993 , 308, 747		
2157	Interface Roughness Effects on Adhesion of Ta ₂ N Films.. 1993 , 327, 337		2
2156	Characterization of Structure and Mechanical Properties of MoSi ₂ -SiC Nanolayer Composites. 1993 , 322, 27		3
2155	Micromechanical Characterization of Dielectric Thin Films. 1993 , 308, 601		3
2154	Ion beam application for improved polymer surface properties**Research sponsored in part by the U.S. Department of Energy, Assistant Secretary of Conservation and Renewable Energy, Office of Industrial Technologies, Advanced Industrial Concepts (AIC) Materials Program, in part by the Division of Materials Sciences, U.S. Department of Energy under contract No. DE-AC0584OR21400		
2153	Hardness and Young's modulus of amorphous a-SiC thin films determined by nanoindentation and bulge tests. <i>Journal of Materials Research</i> , 1994 , 9, 96-103	2.5	115
2152	Effects of electronic and recoil processes in polymers during ion implantation. <i>Journal of Materials Research</i> , 1994 , 9, 1043-1050	2.5	92
2151	Micromechanical characterization of chemically vapor deposited ceramic films. <i>Journal of Materials Research</i> , 1994 , 9, 2072-2078	2.5	10
2150	Division of the hardness of molybdenum into rate-dependent and rate-independent components. <i>Journal of Materials Research</i> , 1994 , 9, 2524-2533	2.5	63
2149	Time Dependent Indentation Testing At Non-Ambient Temperatures Utilizing the High Temperature Mechanical Properties Microprobe. 1994 , 356, 645		8
2148	Mechanical properties of compositionally modulated Au-Ni thin films: Nanoindentation and microcantilever deflection experiments. <i>Journal of Materials Research</i> , 1994 , 9, 3131-3144	2.5	108
2147	Tribology and Surface Mechanical Properties of Excimer Laser Nitrided Titanium. 1994 , 356, 797		
2146	Nanoindentation of Epitaxial Films: A Study of Pop-in Events. 1994 , 356, 271		14
2145	Ultralow load indentation hardness and modulus of K ₂ O and Al ₂ O ₃ CVD coatings. <i>Journal of Materials Research</i> , 1994 , 9, 1683-1692	2.5	28

2144	Thin Film Adhesion Characterization by Microwedge Scratching of Precracked Fine Lines. 1994 , 356, 821	2
2143	Cracking During Nanoindentation and its Use in the Measurement of Fracture Toughness. 1994 , 356, 663	135
2142	Elastic, Transversely Isotropic Film Indented by a Punch; Application to Multilayered Thin Films. 1994 , 356, 687	
2141	Effects of Residual Stress on the Measurement of Hardness and Elastic Modulus Using Nanoindentation. 1994 , 338, 127	28
2140	Materials characterization and effect of purity and ion implantation on the friction and wear of sublimed fullerene films. <i>Journal of Materials Research</i> , 1994 , 9, 2823-2838	2.5 45
2139	Mechanical testing of thin films. 1994 , 39, 24-45	108
2138	Fabrication of Diamond Films at Low Pressure and Low-Temperature by Magneto-Active Microwave Plasma Chemical Vapor Deposition. 1994 , 33, 4404-4408	17
2137	Hard boron oxide thin-film deposition using electron cyclotron resonance microwave plasmas. 1994 , 65, 2672-2674	31
2136	Hardness and elastic modulus of zircon as a function of heavy-particle irradiation dose:. 1994 , 132, 131-141	19
2135	Nanoindentation studies of ion implanted silicon. 1994 , 68-69, 564-570	28
2134	Microstructure and micromechanics of brazings under irradiation by ions. 1994 , 212-215, 118-124	2
2133	Metal ion implantation effects on surface properties of polymers. 1994 , 64, 69-74	41
2132	Preparation of ceramic coatings from pre-ceramic precursors. 1994 , 29, 4487-4499	51
2131	Recording hardness testing. Problems of measurement at small indentation depths. 1994 , 146, 537-548	29
2130	Non-destructive evaluation of ion implantation-induced microhardness by photothermal spectroscopy. 1994 , 66, 265-270	3
2129	Temperature effects on nitrogen diffusion and hardness of aluminum surface implanted with nitrogen. 1994 , 66, 334-339	12
2128	Measuring the elastic properties of anisotropic materials by means of indentation experiments. 1994 , 42, 1223-1245	430
2127	Properties of RF sputtered B4C thin films. 1994 , 91, 692-695	26

2126	Effects of simultaneous boron and nitrogen implantation on microhardness and fatigue properties of Fe-13cr-15ni alloys. 1994 , 25, 193-202	4
2125	The effect of indenter geometry on the elastic response to indentation. 1994 , 27, 1156-1162	138
2124	Effect of ion beam assistance on the microstructure of nonhydrogenated amorphous carbon. 1994 , 75, 3121-3129	59
2123	Substrate induced deformation of nanometer-size gold clusters studied by non-contact AFM and TEM. 1994 , 316, 383-390	36
2122	Comparison of two models of thin diamond film microhardness data to predict the hardness of CVD diamond. 1994 , 3, 783-786	3
2121	Evaluation of in situ mechanical properties of composites by using nanoindentation techniques. 1994 , 42, 695-700	21
2120	. 1994 ,	
2119	Study of Titanium Nitrides Synthesized by High Dose Ion Implantation. 1994 , 354, 243	3
2118	Mechanical Properties of Ag/Cr Multilayered Epitaxial thin Films. 1994 , 356, 363	6
2117	Nanomechanical Response of Materials and Thin Film Systems: Finite Element Simulation. 1994 , 356, 681	2
2116	The Effects of High Temperature Exposure on the Fracture of Thin Tantalum Nitride Films. 1994 , 343, 603	1
2115	Composition Dependence of Hardness and Moduli in GeSi/Si-Heterostructures Measured by Nanoindentation. 1994 , 356, 277	
2114	Electroplasticity and Electromigration. 1994 , 356, 483	3
2113	Indentation at the Nanometer Scale on Ultra Thin Films of Diamond-Like Carbon. 1994 , 356, 657	1
2112	An Explanation for the Shape of Nanoindentation Unloading Curves based on Finite Element Simulation. 1994 , 356, 675	25
2111	Thin Film Fine Line Work of Adhesion by Microwedge Indentation. 1994 , 356, 693	
2110	The Indentation Elastic Response e- Indentation Shape and the Stress Distribution. 1994 , 356, 699	
2109	Studies of Ultra Micro Indented Multilayered Sol-Gel Zirconia Films. 1994 , 356, 711	2

2108	Error Analysis In Nanoindentation. 1994 , 356, 717	2
2107	Elastic Modulus and Hardness as Derived from Nanoindentation of Ni and Mo Films Prepared by Ion Beam Assisted Deposition. 1994 , 356, 723	1
2106	Mechanical Properties of Platinum Films on Silicon and Glass Determined by Ultra-Microindentation. 1994 , 356, 729	2
2105	Wear and Adhesion of thin Carbon Coatings. 1994 , 356, 761	
2104	Nanoindentation and Nanoscratching of Hard Coating Materials for Magnetic Disks. 1994 , 356, 767	25
2103	Hydrogen Effects on the Fracture of Thin Tantalum Nitride Films. 1994 , 356, 827	0
2102	Shape Memory Properties of an Iron Modified Nickel Aluminide Alloy. 1994 , 360, 549	1
2101	Synthesis and Selected Micro-Mechanical Properties of Titanium Nitride Thin Films by the Pyrolysis Of Tetrakis Titanium in Ammonia.. 1994 , 363, 245	1
2100	Microstructural and Mechanical Property Changes in Model Fe-Cu Alloys. 1994 , 373, 149	4
2099	Yield Point Phenomena and Dislocation Velocities Underneath Indentations Into BCC Crystals. 1994 , 356, 629	1
2098	Use of the mechanical properties microprobe for characterization of oxide scales. 1994 , 12, 95-101	8
2097	Hardness and modulus measurements on oxide scales. 1994 , 12, 141-150	35
2096	Effect of Thickness and Substrates on the Mechanical Properties of Tantalum and Tantalum Nitride Thin Films. 1995 , 403, 259	
2095	Aluminum/Copper Nanocomposites Fabricated by The Jet Vapor Depositiontm Process. 1995 , 382, 113	
2094	Mechanical Properties of Amorphous Hard Carbon Films Prepared by Cathodic ARC Deposition. 1995 , 383, 453	16
2093	Indentation Characterisation of Carbon Materials. 1995 , 383, 85	5
2092	Deposition of aluminum Oxynitride Films by Magnetron Sputtering: Effect of Bombardment and Substrate Heating on Structural and Mechanical Properties. 1995 , 388, 311	
2091	Pulsed Laser Deposition of Poly(Tetrafluoroethylene) Films. 1995 , 397, 223	1

2090	Mechanical Properties of High Strength Aluminum Alloys Formed by Pulsed Laser Deposition. 1995 , 397, 387	5
2089	Excimer Laser Processing of Tool Steel: Tribological Effects of Multiple Pulse Processing and Ti Alloying. 1995 , 397, 531	1
2088	Formation of a Metastable Crystalline Phase During Ion Irradiation of Spinel. 1995 , 398, 171	2
2087	Hardness of thin Films of Nanocrystalline Silver and Nickel Composites Studied by Nanoindentation and Finite Element Analysis. 1995 , 400, 305	1
2086	Mechanical Properties of Porous Nanophase Materials Measured by Instrumental Indentation. 1995 , 400, 311	
2085	Study of the Hall-Petch Dependence in an Annealed Nanocrystalline Iron Thin Film. 1995 , 403, 157	0
2084	Properties and Fracture Resistance of Thin Polycrystalline Aluminum Films on Sapphire Substrates. 1995 , 403, 145	2
2083	Mechanical and tribological properties of diamond-like carbon coatings prepared by pulsed laser deposition. 1995 , 76-77, 534-539	68
2082	Study of the damage mechanisms in an OSPREY TM Al alloy-SiCp composite by scanning electron microscope in situ tensile tests. 1995 , 196, 135-144	32
2081	A concept for the design of novel superhard coatings. 1995 , 268, 64-71	804
2080	Mechanical measurement of the residual stress in thin PVD films. 1995 , 270, 264-269	57
2079	Energetically evaluated load-indentation measurements of different classes of material. 1995 , 30, 5394-5398	10
2078	Examination of reported size effects in ultra-micro-indentation testing. 1995 , 30, 1728-1732	11
2077	Nanoindentation of amorphous aluminum oxide films I. The influence of the substrate on the plastic properties. 1995 , 261, 219-227	91
2076	Quantifying Local Microcrack Density in Ceramics: A Comparison of Instrumented Indentation and Thermal Wave Techniques. 1995 , 78, 1301-1304	8
2075	Load Dependence of Hardness in Sintered Submicrometer Al ₂ O ₃ and ZrO ₂ . 1995 , 78, 1417-1419	23
2074	Nanoindentation of amorphous aluminum oxide films II. Critical parameters for the breakthrough and a membrane effect in thin hard films on soft substrates. 1995 , 261, 228-235	45
2073	Structure, mechanical and tribological properties of d.c. magnetron sputtered TiB ₂ and TiB ₂ (N) thin films. 1995 , 76-77, 609-614	36

2072	Microstructure and mechanical properties of a-B1N _x :H films prepared by r.f. PACVD. 1995 , 74-75, 399-404		9
2071	Young's modulus of nanocrystalline Fe measured by nanoindentation. 1995 , 204, 1-6		117
2070	Artificially layered nanocomposites fabricated by jet vapor deposition. 1995 , 5, 935-950		10
2069	The effect of tip radius on nano-indentation hardness tests. 1995 , 32, 1759-1770		50
2068	The mechanical properties of thin alumina films deposited by metal-organic chemical vapour deposition. 1995 , 254, 153-163		21
2067	Finite element analysis of the critical ratio of coating thickness to indentation depth for coating property measurements by nanoindentation. 1995 , 258, 198-204		132
2066	Application of atomic force microscopy for microindentation testing. 1995 , 264, 153-158		26
2065	Comparison of mechanical properties and microstructure of Al(1 wt.%Si) and Al(1 wt.%Si, 0.5 wt.%Cu) thin films. 1995 , 263, 175-184		28
2064	Influence of thickness and substrate on the hardness and deformation of TiN films. 1995 , 270, 283-288		50
2063	Growth and mechanical anisotropy of TiN thin films. 1995 , 271, 108-116		81
2062	Study of thin alumina coatings sputtered on polyethylene terephthalate films. 1995 , 266, 198-204		19
2061	Friction microprobe studies of ion implanted polymer surfaces. 1995 , 184, 213-222		16
2060	The feasibility of forming superhard nitrides by ion implantation. 1995 , 47, 49-51		1
2059	Elastic properties of individual nanometer-size supported gold clusters. 1995 , 51, 5322-5332		33
2058	Microwave characteristics of BaPr ₂ Ti ₄ O ₁₂ and BaPr ₂ Ti ₅ O ₁₄ ceramics. <i>Journal of Materials Research</i> , 1995 , 10, 312-319	2.5	20
2057	The use of shape correction factors for elastic indentation measurements. <i>Journal of Materials Research</i> , 1995 , 10, 255-257	2.5	29
2056	On the elastic moduli of nanocrystalline Fe, Cu, Ni, and CuNi alloys prepared by mechanical milling/alloying. <i>Journal of Materials Research</i> , 1995 , 10, 2892-2896	2.5	197
2055	Dislocation distribution under a microindentation into an iron-silicon single crystal. 1995 , 72, 1221-1237		37

2054	Structure and mechanical properties of MoSi ₂ -SiC nanolayer composites. 1995 , 71, 759-779		22
2053	Improved wear properties of high energy ion-implanted polycarbonate. <i>Journal of Materials Research</i> , 1995 , 10, 190-201	2.5	33
2052	Local acoustic probing using mechanical and ultrafast optical techniques.		1
2051	Quantum Tunnelling of Antiferromagnetic Domain Walls in TbFeO 3 Single Crystal. 1995 , 30, 227-232		15
2050	Interfacial reactions and adhesion strength of metal/ceramic composites. <i>Journal of Materials Research</i> , 1995 , 10, 2367-2373	2.5	5
2049	Nanoindentation and Nanoscratching of Hard Carbon Coatings for Magnetic Disks. 1995 , 383, 447		304
2048	Errors associated with depth-sensing microindentation tests. <i>Journal of Materials Research</i> , 1995 , 10, 1491-1501	2.5	109
2047	The relationship between indentation and uniaxial creep in amorphous selenium. <i>Journal of Materials Research</i> , 1995 , 10, 2024-2032	2.5	153
2046	Further analysis of the size effect in indentation hardness tests of some metals. <i>Journal of Materials Research</i> , 1995 , 10, 2908-2915	2.5	84
2045	Low pressure chemical vapor deposition of B-N-C-H films from triethylamine borane complex. <i>Journal of Materials Research</i> , 1995 , 10, 320-327	2.5	28
2044	Measurement of surface topography and area-specific nanohardness in the scanning force microscope. <i>Journal of Materials Research</i> , 1995 , 10, 2503-2506	2.5	6
2043	Tribology and mechanical properties of excimer laser-processed Ti ₃ Bi ₃ N ₄ surfaces. <i>Journal of Materials Research</i> , 1995 , 10, 1857-1860	2.5	0
2042	The injection of plasticity by millinewton contacts. 1995 , 43, 1569-1576		138
2041	Metallic multilayers at the nanoscale. 1995 , 6, 179-190		22
2040	Nanostructured Ni ₃ Al produced by magnetron sputtering. 1995 , 6, 739-742		8
2039	Measurement of the fracture toughness of Ni ₃ Ge using small disk-shaped specimens. 1995 , 3, 397-404		4
2038	Pulsed laser deposition of diamond-like amorphous carbon films from graphite and polycarbonate targets. 1995 , 78, 4123-4130		110
2037	Superhard and elastic carbon nitride thin films having fullerenelike microstructure. 1995 , 75, 1336-1339		603

2036	Carbon nanostructures in silica aerogel composites. <i>Journal of Materials Research</i> , 1995 , 10, 251-254	2.5	16
2035	Size dependent hardness of silver single crystals. <i>Journal of Materials Research</i> , 1995 , 10, 853-863	2.5	1063
2034	Characterization of Plasma Nitrided and PVD-TiN Duplex Treated Armco Iron and En40B Steel by Nanoindentation. 1995 , 10, 815-824		15
2033	Determining the mechanical properties of small volumes of material from submicrometer spherical indentations. <i>Journal of Materials Research</i> , 1995 , 10, 101-112	2.5	302
2032	Substrate bias effect on the tribological properties of a-Si _{1-x} C _x :H films. 1995 , 4, 366-369		11
2031	Nanoindentation Studies in a Liquid Environment 1996 , 12, 4583-4586		55
2030	Nanoindentation investigation of the Young's modulus of porous silicon. 1996 , 80, 3772-3776		104
2029	Influences of stress on the measurement of mechanical properties using nanoindentation: Part I. Experimental studies in an aluminum alloy. <i>Journal of Materials Research</i> , 1996 , 11, 752-759	2.5	475
2028	Synthesis, structure and mechanical properties of nanostructured MoSi ₂ N _x . 1996 , 7, 81-88		4
2027	A study of physico-chemical mechanisms responsible for damage of heat treated and as-cast ferritic spheroidal graphite cast irons. 1996 , 34, 261-268		26
2026	Micro-hardness of annealed and work-hardened copper polycrystals. 1996 , 34, 559-564		462
2025	Nanoindentation characterisation of the properties around reinforcements in a heat treated spray deposited 2014+15vol%SiCp metal-matrix composite. 1996 , 35, 1115-1120		6
2024	Analysis of residual stress in cubic boron nitride thin films using micromachined cantilever beams. 1996 , 5, 1295-1302		58
2023	Properties of silicon/aluminum/yttrium oxynitride glasses. 1996 , 208, 162-169		59
2022	Nano/picoindentation measurements on single-crystal aluminum using modified atomic force microscopy. 1996 , 29, 221-227		48
2021	Analysis of nanoindentation load-displacement loading curves. <i>Journal of Materials Research</i> , 1996 , 11, 1987-1995	2.5	259
2020	Influences of stress on the measurement of mechanical properties using nanoindentation: Part II. Finite element simulations. <i>Journal of Materials Research</i> , 1996 , 11, 760-768	2.5	397
2019	Improvements in the indentation method with a surface force apparatus. 1996 , 74, 1061-1072		144

2018	Application of the compliance method to microhardness measurements of organic polymers. 1996 , 74, 1159-1169	43
2017	Nanoindentation studies of single-crystal (001)-, (011)-, and (111)-oriented TiN layers on MgO. 1996 , 80, 6725-6733	216
2016	Ultra-microindentation of silicon at elevated temperatures. 1996 , 74, 1073-1084	93
2015	Nanoindentation study of the mechanical properties of metal evaporated magnetic tapes. 1996 , 79, 5779	1
2014	Mechanical Behavior of a Mems Acoustic Emission Sensor. 1996 , 444, 209	4
2013	Evolution of the Contact Area During an Indentation Process. 1996 , 436, 165	3
2012	Assessment of local residual strain by electron backscatter patterns and nanoindentation. 1996 , 12, 873-879	5
2011	Finite Element Studies of the Influence of Pile-up on the Analysis of Nanoindentation Data. 1996 , 436, 141	21
2010	Inaccuracies in Sneddon's Solution for Elastic Indentation by a Rigid Cone and their Implications for Nanoindentation Data Analysis. 1996 , 436, 189	15
2009	Effect of Thickness and Annealing on Stress in Tantalum and Tantalum Nitride Thin Film Hard Coatings. 1996 , 436, 529	2
2008	Micromechanical Deformation of Single-Crystal Alumina Surfaces. 1996 , 440, 189	
2007	Fracture of Thin Tantalum Nitride Films on Al ₂ O ₃ Substrates. 1996 , 436, 97	3
2006	Material Characterization and Chemical-Mechanical Polishing of Low-Dielectric Constant Fluorinated Silicon Dioxide Films. 1996 , 427, 441	
2005	Indenter Geometry Effects on the Measurement of Mechanical Properties by Nanoindentation with Sharp Indenters. 1996 , 436, 147	23
2004	Dislocation Nucleation and Multiplication During Nanoindentation Testing. 1996 , 436, 153	11
2003	Mechanical Property Data for Coated Systems-The Prospects for Measuring "Coating Only" Properties using Nanoindentation. 1996 , 436, 171	29
2002	Probing Silicate/Sapphire Interfaces with AFM and Nanoindentation. 1996 , 436, 177	1
2001	Stress Reduction in PACVD Amorphous Diamond Coatings by Boron Addition. 1996 , 436, 183	4

2000	Microstructure and Mechanical Properties of Thin Al-Si-Ge Films. 1996 , 436, 21	1
1999	Hardness and Deformation Mechanisms of Highly Elastic Carbon Nitride Thin Films as Studied By Nanoindentation. 1996 , 436, 275	14
1998	Tribological Properties of Tetrahedral Carbon Films Deposited by Filtered Cathodic Vacuum Arc Technique. 1996 , 436, 293	17
1997	Characterization of the Mechanical and Tribological Properties of Sputtered a:SiC Thin Films. 1996 , 436, 311	
1996	Investigation of The Elastic Modulus of Sol-Gel Derived Titania Using Three-Point Bending Tests. 1996 , 436, 53	
1995	Growth, Structure, and Mechanical Properties of Pulsed Laser Deposited TiN/TiB ₂ Microlaminates. 1996 , 436, 65	1
1994	Dependence of Hardness and Stiffness on Density of Ta ₂ O ₅ and TiO ₂ Layers. 1996 , 436, 71	
1993	Evaluating Mechanical Properties of Thin Layers using Nanoindentation and Finite-Element Modeling: Implanted Metals and Deposited Layers. 1996 , 438, 617	14
1992	Engineered Nanocrystallites for Enhanced Performance of Ceramic Coatings by Ion Beam Assisted Deposition. 1996 , 438, 697	
1991	Grain-Size and Impurity Effects in Low-Temperature Deposition of TiN. 1996 , 438, 709	1
1990	Relating Polymer Indentation Behavior to Elastic Modulus Using Atomic Force Microscopy. 1996 , 440, 195	6
1989	Residual Stress Effects on the Fracture of Tantalum Nitride Films. 1996 , 458, 453	2
1988	Nanometer Scale Mechanical Properties of Tribochemical Films. 1996 , 173-184	6
1987	Plastic zone and pileup around large indentations. 1996 , 27, 3793-3800	42
1986	Mechanical characterization by nanoindentation of zirconium ion implanted alumina. 1996 , 108, 87-93	6
1985	Ion beam synthesis of non-stoichiometric titanium carbide: composition structure and nanoindentation studies. 1996 , 111, 263-270	31
1984	Hardness and Young's modulus of human peritubular and intertubular dentine. 1996 , 41, 9-13	261
1983	Microwedge indentation of the thin film fine line. Experiment. 1996 , 44, 3177-3187	54

1982	Indentation induced dislocation nucleation: The initial yield point. 1996 , 44, 3585-3598	359
1981	Nanoindentation and the tribology of head-disk interface components. 1996 , 32, 110-114	11
1980	Investigation of plasma immersion ion implanted niobium oxide and titanium nitride films by nanohardness measurement. 1996 , 120, 282-285	5
1979	Nanoscale mechanical property measurements using modified atomic force microscopy. 1996 , 290-291, 206-210	60
1978	Study of elasto-plastic properties of microheterogeneities by means of nano-indentation measurements: Application to bearing steels. 1996 , 215, 134-142	12
1977	Controlled indentation: A general approach to determine mechanical properties of brittle materials. 1996 , 44, 1127-1141	89
1976	Surface mechanical property testing by depth sensing indentation. 1996 , 100-101, 64-68	18
1975	Elastic properties determination from indentation tests. 1996 , 81, 269-274	27
1974	Structural and mechanical characterization of Cr-Ta-N hard coatings prepared by reactive magnetron sputtering. 1996 , 82, 42-47	38
1973	Investigation of plasma immersion ion implanted surfaces by instrumented indentation. 1996 , 83, 243-249	13
1972	Analysis of Berkovich indentation. 1996 , 33, 221-248	284
1971	Structure and mechanical properties of irradiated magnesium aluminate spinel. 1996 , 232, 59-64	42
1970	Debonding of interfaces between beta-silicon nitride whiskers and Si ₃ Al ₂ Y oxynitride glasses. 1996 , 44, 3881-3893	83
1969	Mechanical characterisation of titanium nitride films formed by low- energy ion beam assisted deposition. 1996 , 84, 439-442	5
1968	Low friction and wear resistant a-C:H/a-Si _{1-x} C _x :H multilayer coatings. 1996 , 86-87, 617-621	27
1967	Depth-sensing indentation measurements as mechanical probes for tribological coatings. 1996 , 86-87, 535-541	9
1966	Investigation of the stresses and stress intensity factors responsible for fracture of thin protective films during ultra-micro indentation tests with spherical indenters. 1996 , 286, 111-121	96
1965	Investigation of the properties of NiPSn multilayers using a mechanical microprobe. 1996 , 288, 202-211	6

1964	Development of innovative indentation system and its application to cyclic ball indentation test for small-sized specimens. 1996 , 239, 219-227		4
1963	Recent progress in microtribology. 1996 , 200, 296-304		32
1962	Microtribological studies of Al ₂ O ₃ , Al ₂ O ₃ ?TiC, polycrystalline and single-crystal Mn?Zn ferrite, and SiC head slider materials. 1996 , 202, 110-122		40
1961	Determination of the hardness and elastic modulus from continuous vickers indentation testing. 1996 , 31, 3109-3114		26
1960	Nanoindentation and microindentation of weathered unplasticised poly-vinyl chloride (UPVC). 1996 , 31, 4189-4198		16
1959	Hardness estimated from the indentation of a spherical body. Some implications for nanoindentation test results. 1996 , 2, 381-391		7
1958	Effect of beam voltage on the properties of aluminium nitride prepared by ion beam assisted deposition. 1996 , 7, 247-253		40
1957	Synthesis and Friction Behavior of Chemically Vapor Deposited Composite Coatings Containing Discrete TiN and MoS ₂ Phases. 1996 , 79, 819-824		16
1956	Nanoindentation Studies of Yield Point Phenomena on Gold Single Crystals. 1996 , 436, 159		6
1955	Growth of CN _x Hy films by reactive magnetron sputtering of carbon in Ar/NH ₃ discharges. <i>Journal of Materials Research</i> , 1996 , 11, 981-988	2.5	51
1954	A new method for hardness determination from depth sensing indentation tests. <i>Journal of Materials Research</i> , 1996 , 11, 2964-2967	2.5	32
1953	A method of monitoring water absorption in polymers using a depth sensing indentation system. <i>Journal of Materials Research</i> , 1996 , 11, 529-536	2.5	13
1952	Effects of sequential He ⁺ and Ar ⁺ implantation on surface properties of polymers. <i>Journal of Materials Research</i> , 1996 , 11, 2661-2667	2.5	28
1951	Nano Scale Creep and the Role of Defects. 1996 , 436, 201		15
1950	Surface hardness enhancement in ion-implanted amorphous carbon. 1996 , 80, 1480-1484		15
1949	Precipitate-hardened aluminum alloys formed using pulsed laser deposition. 1996 , 79, 1116		19
1948	Optical and mechanical properties of plasma-beam-deposited amorphous hydrogenated carbon. 1996 , 80, 5986-5995		80
1947	The influence of plastic properties of the probe tip/Si contact on spreading resistance analyses. 1996 , 79, 129-133		2

1946	Analysis of penetration curves produced by sharp indentations on ceramic materials. 1996 , 74, 1107-1116	25
1945	Influence of microstructure on indentation and machining of dental glass-ceramics. <i>Journal of Materials Research</i> , 1996 , 11, 2325-2337	2.5 42
1944	Nanoindentation of Soft Films on Hard Substrates:The Importance of Pile-Up. 1996 , 436, 207	26
1943	The indentation response of GaAs[sbnd]AlAs heterostructures. 1996 , 74, 1185-1194	5
1942	Nanoindentation and picondentation measurements using a capacitive transducer system in atomic force microscopy. 1996 , 74, 1117-1128	201
1941	Investigation of the mechanical properties of two glassy carbon materials using pointed indenters. 1996 , 74, 1085-1096	13
1940	Ultrasonic Atomic Force Microscope with Overtone Excitation of Cantilever. 1996 , 35, 3787-3792	152
1939	Hard boron oxide-based films deposited in a sputter-sourced, high-density plasma deposition system. 1997 , 15, 2623-2626	32
1938	Development of a depth controlling nanoindentation tester with subnanometer depth and submicro-newton load resolutions. 1997 , 68, 3494-3503	16
1937	On the initial unloading slope in indentation of elastic-plastic solids by an indenter with an axisymmetric smooth profile. 1997 , 71, 2623-2625	77
1936	The effect of implantation temperature on the surface hardness, elastic modulus and Raman scattering in amorphous carbon. 1997 , 70, 3104-3106	17
1935	The synthesis, characterization, and mechanical properties of thick, ultrahard cubic boron nitride films deposited by ion-assisted sputtering. 1997 , 82, 1617-1625	87
1934	Impression creep of a viscous fluid. 1997 , 81, 7751-7756	4
1933	Hardness and Modulus Properties in Ion-beam-modified Amorphous Carbon: Temperature and Dose Rate Dependences. <i>Journal of Materials Research</i> , 1997 , 12, 2057-2063	2.5 9
1932	Critical Issues in Measuring the Mechanical Properties of Hard Films on Soft Substrates by Nanoindentation Techniques. 1997 , 505, 65	16
1931	Comparison of coating failure induced by indentation and bending test. 1997 , 13, 207-212	2
1930	Hydrogen free tetrahedral carbon film preparation and tribological characterisation. 1997 , 13, 213-218	19
1929	The Hardness and Wear of Electrochemically Grown Tantalum Oxide. 1997 , 505, 211	1

1928	Analysis of ball-indentation load-depth data: Part I. Determining elastic modulus. <i>Journal of Materials Research</i> , 1997 , 12, 965-974	2.5	13
1927	Investigation of a new fracture mechanics specimen for thin film adhesion measurement. <i>Journal of Materials Research</i> , 1997 , 12, 2673-2685	2.5	41
1926	Comparing Mechanical Properties of Secondary Wall and Cell Corner Middle Lamella in Spruce Wood. 1997 , 18, 77-88		59
1925	Design of contact loaded coated components using data from depth sensing microindentation tests. 1997 , 13, 498-504		2
1924	A simple technique for measuring the adhesion of brittle films to ductile substrates with application to diamond-coated titanium. <i>Journal of Materials Research</i> , 1997 , 12, 1900-1910	2.5	69
1923	Radiation-induced phase transformations in MgAl ₂ O ₄ spinel. <i>Journal of Materials Research</i> , 1997 , 12, 1766-1770	2.5	22
1922	Mechanical Characterization of Sub-Micron Polytetrafluoroethylene (PTFE) Thin Films. 1997 , 505, 97		24
1921	Microstructure and micromechanical properties of the mid-diaphyses of human fetal femurs. 1997 , 36, 271-86		21
1920	Contact Area Evolution During an Indentation Process. <i>Journal of Materials Research</i> , 1997 , 12, 2064-2074	2.5	9
1919	An alternative method for penetration depth determination in nanoindentation measurements. <i>Journal of Materials Research</i> , 1997 , 12, 2455-2458	2.5	74
1918	On the Effects of the Thermal Treatment on the Structural, Mechanical and Tribological Properties of Amorphous Carbon-Nitrogen Films Deposited by Magnetron Sputtering. 1997 , 498, 253		1
1917	Energetic Particle Synthesis of Metastable Layers for Superior Mechanical Properties. 1997 , 504, 241		1
1916	Tribological Properties of Si-DLC Coatings Synthesized with Nitrogen, Argon Plus Nitrogen, and Argon Ion Beams. 1997 , 504, 259		
1915	Nano-Scale Viscoelastic Properties of Polymer Materials. 1997 , 505, 103		7
1914	Nanoindentation of Soft Films on Hard Substrates: Experiments and Finite Element Simulations. 1997 , 505, 109		10
1913	Aging Effects on the Durability of Tantalum Nitride Films. 1997 , 505, 173		1
1912	Dynamic Hardness of Thin Films and its Thickness Dependence. 1997 , 505, 199		1
1911	Nanoindentation and Nanowear Studies of Thin Carbon Coatings. 1997 , 505, 217		1

1910	Curves of Elasto-Plastic Deformation of Thin Coatings Obtained in Depth-Sensing Indentation Experiments. 1997 , 505, 223		
1909	Mechanical Characterization of Ultra-Thin, Hard-Disk Overcoats Using Scratch Testing and Depth-Sensing Indentation. 1997 , 505, 325		7
1908	A Method for Independent Measurement of Elastic Modulus and Poisson's Ratio of Diamond-Like Carbon Films. 1997 , 505, 33		6
1907	Mechanical and Tribological Properties of a-GeCx Films Deposited by DC-Magnetron Sputtering. 1997 , 505, 351		
1906	Microstructural Effects on the Hardness, Elastic Modulus and Fracture Toughness of CVD Diamond. 1997 , 505, 611		3
1905	Mechanical Testing and Microstructural Characterisation of TiN Thin Films. 1997 , 505, 617		
1904	The Effects of Residual Stress on Modulus Measurements by Indentation. 1997 , 505, 85		2
1903	Practical Limitations to Indentation Testing of Thin Films. 1997 , 505, 91		
1902	The mechanical behavior of a passivating surface under potentiostatic control. <i>Journal of Materials Research</i> , 1997 , 12, 3345-3353	2.5	23
1901	Interface Effects on the Adhesion of Thin Aluminum Films. 1997 , 472, 155		
1900	Nanoscale Indentation of Polymer Systems Using the Atomic Force Microscope. 1997 , 64, 31-59		129
1899	Experimental Investigation of the Interphase in an Epoxy-Aluminum System. 1997 , 62, 93-111		24
1898	Microhardness, Young's modulus and fracture toughness of alumina implanted with , , and . The effect of the residual stresses. 1997 , 30, 330-337		12
1897	Nanoindentation measurements of amorphous carbon coatings. <i>Journal of Materials Research</i> , 1997 , 12, 2707-2714	2.5	51
1896	Influence of implantation of heavy metallic ions on the mechanical properties of two polymers, polystyrene and polyethylene terephthalate. <i>Journal of Materials Research</i> , 1997 , 12, 1917-1926	2.5	23
1895	Determination of Young's modulus by spherical indentation. <i>Journal of Materials Research</i> , 1997 , 12, 2459-2469	2.5	30
1894	Sol-Gel Synthesis and Characterization of Magnesium Silicate Thin Films. 1997 , 9, 2567-2576		8
1893	Mechanical properties and Raman spectra of tetrahedral amorphous carbon films with high sp ³ fraction deposited using a filtered cathodic arc. 1997 , 76, 351-361		163

1892	Transition from polymer-like to diamond-like a-C:H films structure and mechanical properties. 1997 , 6, 574-578	23
1891	Nanoindentation Hardness of Soft Films on Hard Substrates: Effects of the Substrate. 1997 , 473, 57	16
1890	Properties of boron/boron-nitride multilayers. 1997 , 9, 467-471	2
1889	Nanoindentation study of sputtered nanocrystalline iron thin films. 1997 , 36, 29-34	22
1888	Nanoindentation creep of single-crystal tungsten and gallium arsenide. 1997 , 76, 1105-1118	173
1887	Adhesion Assessment of Copper Thin Films. 1997 , 473, 39	6
1886	Effects of Adhesion on the Measurement of Thin Film Mechanical Properties by Nanoindentation. 1997 , 473, 51	5
1885	The effect of solutes on defect distributions and hardening in ion-irradiated model ferritic alloys. 1997 , 244, 219-226	19
1884	c-Boron/aluminum nitride alloys prepared by ion-beam assisted deposition. 1997 , 298, 33-38	20
1883	Nanoindentation of amorphous aluminum oxide films III. The influence of the substrate on the elastic properties. 1997 , 304, 70-77	30
1882	A Hydrostatic core model of elastic deformations in an indented film/substrate system. 1997 , 304, 78-84	9
1881	A microindentation method for estimating interfacial shear strength and its use in studying the influence of titanium transition layers on the interface strength of epitaxial copper films on sapphire. 1997 , 45, 489-499	21
1880	Determination of the time-dependent plastic properties of solids by dynamic nanoindentation. 1997 , 23, 621-623	6
1879	Pulsed laser deposition of titanium-carbonitride thin films. 1997 , 36, 1101-1106	9
1878	Nanoindentation as a composition microprobe for nanolayer composites. 1997 , 37, 1421-1427	8
1877	INDENTATION OF STRAINED SILICATE-GLASS FILMS ON ALUMINA SUBSTRATES. 1997 , 37, 1869-1875	18
1876	Heat treatment of cathodic arc deposited amorphous hard carbon films. 1997 , 308-309, 186-190	49
1875	Formation of cubic boron nitride by the reactive sputter deposition of boron. 1997 , 308-309, 94-100	27

1874	Structural dependence of mechanical properties of Si incorporated diamond-like carbon films deposited by RF plasma-assisted chemical vapour deposition. 1997 , 308-309, 263-267	84
1873	Superhard coatings of CN _x /ZrN multilayers prepared by DC magnetron sputtering. 1997 , 308-309, 113-117	35
1872	Between nanoindentation and scanning force microscopy: measuring mechanical properties in the nanometer regime. 1997 , 308-309, 289-296	48
1871	Novel nanoindentation method for characterising multiphase materials. 1997 , 308-309, 297-303	33
1870	Investigation of the elastic modulus of thin films using simple biaxial bending techniques. 1997 , 308-309, 304-309	25
1869	Mechanical properties of titanium implanted and annealed TZP-ZrO ₂ . 1997 , 122, 233-238	5
1868	Annealing studies of chromium-implanted silicon nitride ceramics. 1997 , 127-128, 677-680	3
1867	Finite-element modeling of nanoindentation for determining the mechanical properties of implanted layers and thin films. 1997 , 127-128, 935-939	29
1866	Thick stress-free amorphous-tetrahedral carbon films with hardness near that of diamond. 1997 , 71, 3820-3822	277
1865	Nanocrystalline carbide/amorphous carbon composites. 1997 , 82, 855-858	228
1864	Micro-indentation relaxation measurements in polymer thin films. 1997 , 26, 852-858	12
1863	Impression recovery of amorphous polymers. 1997 , 26, 859-862	19
1862	Microindentation testing of inhomogeneous microstructures in welded polyethylene. 1997 , 37, 1815-1824	15
1861	Longitudinal hardness and Young's modulus of spruce tracheid secondary walls using nanoindentation technique. 1997 , 31, 131-141	152
1860	Review of advances in cubic boron nitride film synthesis. 1997 , 21, 47-100	515
1859	A critical investigation of the unloading behavior of sharp indentation. 1997 , 45, 3791-3800	47
1858	Adhesion and acoustic emission analysis of failures in nitride films with a metal interlayer. 1997 , 45, 5163-5175	63
1857	Elastic and plastic properties of thin films on substrates: nanoindentation techniques. 1997 , 234-236, 37-44	254

1856	Mechanical properties of amorphous Ta ₁₀₀ kCr _x thin films. 1997 , 226-228, 871-873	5
1855	Improvement of mechanical properties of amorphous carbon films deposited on polycarbonate plastics. 1997 , 89, 38-46	17
1854	Properties of nitrogen-implanted alloys and comparison materials. 1997 , 88, 132-138	19
1853	Tribological effects of excimer laser processing of tool steel. 1997 , 89, 158-164	10
1852	Exploration of the plate bending model for predicting the hardness response of coated systems. 1997 , 92, 87-95	32
1851	A comparison of the wear life of as-deposited and ion-irradiated WS ₂ coatings. 1997 , 92, 120-128	18
1850	Very-high-rate reactive sputtering of alumina hard coatings. 1997 , 96, 262-266	46
1849	High-rate reactive sputtering of yttria-stabilized zirconia using pulsed d.c. power. 1997 , 94-95, 333-338	40
1848	Multilayers of amorphous carbon prepared by cathodic arc deposition. 1997 , 94-95, 189-194	59
1847	Thin tribological coatings: magic or design?. 1997 , 94-95, 476-482	20
1846	Phase formation and mechanical properties of alumina coatings prepared at substrate temperatures less than 500 °C by ionized and conventional sputtering. 1997 , 94-95, 179-183	19
1845	Effect of friction and cavity depth on the elastic indentation of a cylindrical rod. 1997 , 25, 163-172	7
1844	Analysis of pyramid indentation of pressure-sensitive hard metals and ceramics. 1997 , 25, 1-35	93
1843	Correlation between processing parameters and mechanical properties as a function of substrate polarisation and depth in a nitrided 316 L stainless steel using nanoindentation and scanning force microscopy. 1997 , 48, 849-855	23
1842	Architecture of multilayer nanocomposite coatings with super-hard diamond-like carbon layers for wear protection at high contact loads. 1997 , 203-204, 516-527	141
1841	Tribology of metal-containing diamond-like carbon coatings. 1997 , 211, 208-217	75
1840	Nanoindentation and scanning force microscopy as a novel method for the characterization of tribological transfer films. 1997 , 212, 18-24	17
1839	Design of a Ti/TiC/DLC functionally gradient coating based on studies of structural transitions in TiC thin films. 1997 , 298, 107-115	249

1838	Elastic properties of human cortical and trabecular lamellar bone measured by nanoindentation. 1997 , 18, 1325-30	694
1837	Elastic field of a thin-film/substrate system under an axisymmetric loading. 1997 , 34, 4463-4478	74
1836	Film thickness effects on the fracture of tantalum nitride on aluminum nitride thin film systems. 1998 , 61, 107-118	21
1835	Effect of Tool Edge Geometry on the Nanometric Cutting of Ge. 1998 , 47, 475-478	42
1834	Progress in Assessing Surface and Subsurface Integrity. 1998 , 47, 669-693	94
1833	Determination of monotonic stress-strain curve of hard materials from ultra-low-load indentation tests. 1998 , 35, 365-381	111
1832	Techniques and considerations for nanoindentation measurements of polymer thin film constitutive properties. 1998 , 12, 1299-1321	47
1831	Study of the mechanical properties of ceramic materials by the nanoindentation technique. 1998 , 18, 2297-2305	43
1830	Dislocation nucleation at nano-scale mechanical contacts. 1998 , 46, 391-396	148
1829	Effects of annealing and interlayers on the adhesion energy of copper thin films to SiO ₂ /Si substrates. 1998 , 46, 6623-6630	80
1828	Nanomechanic properties of epitaxial Fe films grown on CaF ₂ (111)/Si(111). 1998 , 323, 178-182	2
1827	Radiation damage effects in cubic-stabilized zirconia irradiated with 72 MeV I ⁺ ions. 1998 , 141, 358-365	81
1826	A new look at the influences of load, grain size and grain boundaries on the room temperature hardness of ceramics. 1998 , 16, 331-335	47
1825	Determination du module d'young, de la dureté et de la contrainte d'écoulement plastique de dépôts par nano-indentation. 1998 , 23, 829-846	2
1824	Caractérisation mécanique par flexion, nano- et macro-indentation de revêtements de SiC par PACVD micro-onde sur acier. 1998 , 23, 891-898	6
1823	Silane Adsorption Behavior, Microstructure, and Properties of Glycidoxypropyltrimethoxysilane-Modified Colloidal Silica Coatings. 1998 , 205, 191-200	124
1822	An in situ nanoindentation specimen holder for a high voltage transmission electron microscope. 1998 , 42, 248-54	56
1821	Nanocrystalline hard coatings within the quasi-binary system TiN/TiB ₂ . 1998 , 50, 313-318	61

1820	Understanding and quantification of elastic and plastic deformation during a scratch test. 1998 , 218, 8-14	289
1819	a-C(:H) and a-CN _x (:H) films deposited by magnetron sputtering and PACVD. 1998 , 317, 359-362	12
1818	Simulation of Berkovich nanoindentation experiments on thin films using finite element method. 1998 , 312, 240-248	202
1817	Study of out-of-plane elastic properties of PMDA-ODA and BPDA-PDA polyimide thin films. 1998 , 323, 203-208	14
1816	Microstructure and nanomechanical properties of cubic boron nitride films prepared by bias sputter deposition. 1998 , 316, 35-39	10
1815	Transmission electron microscopy study of zirconia/alumina nanolaminates grown by reactive sputter deposition. Part I: zirconia nanocrystallite growth morphology. 1998 , 326, 106-116	35
1814	Formation and characterization of multiphase film properties of (Ti _{1-x} Cr _x)N formed by cathodic arc deposition. 1998 , 333, 88-94	54
1813	Mechanical properties of SiO ₂ and Si ₃ N ₄ coatings: a BAM/NIST co-operative project. 1998 , 332, 164-171	44
1812	Sputter deposited chromium nitride based ternary compounds for hard coatings. 1998 , 332, 240-246	133
1811	Structures and properties of disordered boron carbide coatings generated by magnetron sputtering. 1998 , 332, 80-86	78
1810	Comparison of mechanical properties of TiN thin films using nanoindentation and bulge test. 1998 , 332, 202-208	61
1809	Ultra-micro indentation technique used for examination of mechanical properties close to an HIPed surface of silicon nitride. 1998 , 18, 879-890	3
1808	A comparison between the irradiation damage response of spinel and zirconia due to Xe ion bombardment. 1998 , 253, 78-85	30
1807	Measurement of mechanical properties by ultra-low load indentation. 1998 , 253, 151-159	793
1806	Adhesion and fracture of tantalum nitride films. 1998 , 46, 585-597	55
1805	Kinematic analysis of plastic instabilities occurring in microhardness tests. 1998 , 46, 2029-2037	26
1804	Non-linear deformation mechanisms during nanoindentation. 1998 , 46, 3605-3617	322
1803	Three-dimensional modeling of indent-induced plastic zone at a mesoscale ¹ This paper is dedicated to Gilles Canova whose untimely death occurred on 28 July 1997 at the age of 43.1. 1998 , 46, 6183-6194	121

1802	Indentation measurements using a dynamic mechanical analyzer. 1998 , 38, 1529-1535	12
1801	Some experiments on the micro-indentation of digital audio tape. 1998 , 31, 525-530	8
1800	Mechanical properties of thin carbon overcoats. 1998 , 31, 547-551	26
1799	A parametric study of the microstructural, mechanical and tribological properties of PACVD TiN coatings. 1998 , 99, 140-146	34
1798	Characterization of integrated circuit aluminium bonding pads by nanoindentation and scanning force microscopy. 1998 , 99, 111-117	7
1797	On the hardness of coated systems. 1998 , 99, 171-183	468
1796	A new technology for nanohardness measurements: principle and applications. 1998 , 100-101, 103-109	40
1795	YSZ protective coatings elaborated by MOCVD on nickel-based alloys. 1998 , 100-101, 164-168	8
1794	Correlation of the microhardness with the nitrogen profiles and the phase composition in the surface of laser-nitrided steel. 1998 , 100-101, 404-407	8
1793	The effect of coating cracking on the indentation response of thin hard-coated systems. 1998 , 102, 97-107	107
1792	Finite-element modeling of nanoindentation for evaluating mechanical properties of MEMS materials. 1998 , 103-104, 268-275	33
1791	Strength and tribology of bulk and electroformed nickel amorphized by implantation of titanium and carbon. 1998 , 103-104, 287-292	11
1790	Combining scanning force microscopy with nanoindentation for more complete characterisation of bulk and coated materials. 1998 , 108-109, 489-495	31
1789	Surface engineering design: modelling surface engineering systems for improved tribological performance. 1998 , 108-109, 360-368	50
1788	Microstructural changes in DLC films due to tribological contact. 1998 , 108-109, 385-390	20
1787	Deposition of boron carbide thin film by supersonic plasma jet CVD with secondary discharge. 1998 , 108-109, 247-252	38
1786	Hardness and morphological characterization of tungsten carbide thin films. 1998 , 108-109, 323-327	17
1785	Mechanical Properties of Titanium Implanted Polycrystalline Alumina and Sapphire Determined by Nanoindentation. 1998 , 24, 189-198	14

1784	Experimental and theoretical investigation of the effect of kinematic hardening on spherical indentation. 1998 , 27, 241-248		25
1783	Quantitative Modeling and Measurement of Copper Thin Film Adhesion. 1998 , 539, 277		32
1782	Further analysis of indentation loading curves: Effects of tip rounding on mechanical property measurements. <i>Journal of Materials Research</i> , 1998 , 13, 1059-1064	2.5	99
1781	Nano-indentation of polymeric surfaces. 1998 , 31, 2395-2405		593
1780	Search for superhard materials: Nanocrystalline composites with hardness exceeding 50 GPa. 1998 , 10, 679-689		42
1779	Nano-Scale Indentation Creep Testing at Non-Ambient Temperature. 1998 , 67, 153-165		34
1778	Relationships between hardness, elastic modulus, and the work of indentation. 1998 , 73, 614-616		443
1777	Characterization of Vickers, Berkovich, Spherical and Cube Cornered Diamond Indenters by Nanoindentation and SFM. 1998 , 522, 45		15
1776	The use of refractive index as a measure of diamond-like carbon film quality. 1998 , 7, 432-434		30
1775	Mechanical properties of Ti-containing and W-containing diamond-like carbon coatings. 1998 , 84, 4314-4321		119
1774	Indentation damage and mechanical properties of human enamel and dentin. 1998 , 77, 472-80		445
1773	A study of diffusion in layered thin film [MEMS].		
1772	Determining Yield Stress via Measurement of Nanoindentation Plastic Zone Radii. 1998 , 522, 133		9
1771	Wetting and Spreading of StyreneButadiene Latexes on Calcite. 1998 , 14, 2201-2207		22
1770	Test Rate Effects on The Mechanical Behavior of Thin Aluminum Films. 1998 , 522, 281		10
1769	Influences of pileup on the measurement of mechanical properties by load and depth sensing indentation techniques. <i>Journal of Materials Research</i> , 1998 , 13, 1049-1058	2.5	711
1768	Chemical bonding in hard boron?hexagonal boron nitride multilayers. 1998 , 7, 380-384		8
1767	Determination of indenter tip geometry and indentation contact area for depth-sensing indentation experiments. <i>Journal of Materials Research</i> , 1998 , 13, 1300-1306	2.5	652

1766	Nanoindentation hardness, abrasive wear, and microstructure of TiN/NbN polycrystalline nanostructured multilayer films grown by reactive magnetron sputtering. 1998 , 16, 3104-3113		73
1765	Nano and Macro Indentation Studies of Polycrystalline Copper Using Spherical Indenters. 1998 , 522, 145		27
1764	Investigation on the chemical, structural and mechanical properties of carbon-germanium films deposited by dc-magnetron sputtering. 1998 , 7, 440-443		25
1763	Dislocation nucleation and defect structure during surface indentation. 1998 , 58, 11085-11088		1583
1762	Mechanical properties of poly(ethylene terephthalate) at the near surface from depth-sensing experiments. 1998 , 78, 1283-1297		47
1761	Depth-sensing indentation measurements with Vickers and Berkovich indenters. <i>Journal of Materials Research</i> , 1998 , 13, 2071-2076	2.5	15
1760	Thin film scratch testing in two dimensions Experiments and analysis. <i>Journal of Materials Research</i> , 1998 , 13, 1002-1014	2.5	16
1759	Indentation Response of Molybdenum Disilicide. <i>Journal of Materials Research</i> , 1998 , 13, 2662-2671	2.5	21
1758	Plasticity in ion-irradiated austenitic stainless steels. <i>Journal of Materials Research</i> , 1998 , 13, 2123-2131	2.5	7
1757	Mechanical properties from instrumented indentation: Uncertainties due to tip-shape correction. <i>Journal of Materials Research</i> , 1998 , 13, 2936-2944	2.5	26
1756	The adhesion energy between polymer thin films and self-assembled monolayers. <i>Journal of Materials Research</i> , 1998 , 13, 3555-3564	2.5	46
1755	Plasma-assisted deposition and characterization of Ti-containing diamondlike carbon coatings. 1998 , 83, 6076-6081		39
1754	Enhanced mechanical hardness in epitaxial nonisostructural Mo/NbN and W/NbN superlattices. 1998 , 84, 776-785		100
1753	Scaling approach to conical indentation in elastic-plastic solids with work hardening. 1998 , 84, 1284-1291		277
1752	Growth of poly- and single-crystal ScN on MgO(001): Role of low-energy N ₂ ⁺ irradiation in determining texture, microstructure evolution, and mechanical properties. 1998 , 84, 6034-6041		195
1751	Stress relaxation and stability in thick amorphous carbon films deposited in layer structure. 1998 , 73, 184-186		59
1750	Characterization of sputtered amorphous platinum dioxide films. 1998 , 84, 6382-6386		38
1749	Mechanical properties of nickel ion-implanted with titanium and carbon and their relation to microstructure. 1998 , 83, 1256-1264		28

1748	Relationships between acoustic emission signals and physical phenomena during indentation. <i>Journal of Materials Research</i> , 1998 , 13, 1065-1074	2.5	33
1747	Nanoindentation Characterisation of Coated Systems: P:S2 - A New Approach Using the Continuous Stiffness Technique. 1998 , 522, 53		65
1746	The Dynamics of Frequency-Specific, Depth-Sensing Indentation Testing. 1998 , 522, 3		93
1745	Elastic loading and elastoplastic unloading from nanometer level indentations for modulus determinations. <i>Journal of Materials Research</i> , 1998 , 13, 421-439	2.5	87
1744	An experimental device for depth-sensing indentation tests in millimeter-scale. <i>Journal of Materials Research</i> , 1998 , 13, 1650-1655	2.5	5
1743	Prediction of nanoindentation hardness profile from a load-displacement curve. <i>Journal of Materials Research</i> , 1998 , 13, 3519-3526	2.5	13
1742	A Finite Element Analysis of the Effect of Hardening Rules on the Indentation Test. 1998 , 120, 143-148		24
1741	Unstructured grid finite-element methods for fluid mechanics. 1998 , 61, 569-638		55
1740	Acoustic microscopy of ceramic fibre composites. 1998 , 256-303		
1739	An Investigation of Thin-Film Coating/Substrate Systems by Nanoindentation. 1998 , 120, 154-162		8
1738	Synthesis of Coatings With Hardness Exceeding 40 GPa by Magnetron Sputtering. 1998 , 120, 179-183		10
1737	Energy Transference Effects on the Mechanical Properties of C60 Films Irradiated with N Ions. 1998 , 522, 299		
1736	Characterization Of Spin -on Glasses by Microindentation. 1998 , 511, 157		3
1735	Measurement of Elastic Modulus and Poisson's Ratio of Diamond-Like Carbon Films. 1998 , 518, 203		
1734	Silicon Oxynitride Membrane for Chemical Sensor Application. 1998 , 518, 99		2
1733	Using the Ratio of Loading Slope and Elastic Stiffness to Predict Pile-Up and Constraint Factor During Indentation. 1998 , 522, 101		23
1732	Scaling Relationships in Conical Indentation in Elastic-Plastic Solids with Work-Hardening. 1998 , 522, 139		3
1731	Nanoindentation Experiments on Glass and Polymers at Different Loading Rates and the Power Law Analysis. 1998 , 522, 153		9

1730	Experimental Analysis of Viscoelastic Behavior in Nanoindentation. 1998 , 522, 159	15
1729	Nanoindentation of Viscoelastic Materials: Mechanical Properties of Polymer Coatings on Aluminum Substrates. 1998 , 522, 205	7
1728	Evolution of Contact Area and Pile-Up During The Nanoindentation of Soft Coatings on Hard Substrates. 1998 , 522, 21	10
1727	Investigation of Mechanical Properties of CrN-PVD Thin Films by Nanoindentation. 1998 , 522, 227	
1726	Depth Sensing Indentation of Thin Hard Films: A Study of Modulus Measurement Sensitivity to Indentation Parameters. 1998 , 522, 239	26
1725	Mechanical Properties of Tin Thin Films Measured using Nanoindentation and Bulge Test. 1998 , 522, 245	3
1724	Applicability of Sneddon Relationships to the Real Case of a Rigid Cone Penetrating an Infinite Half Space. 1998 , 522, 263	7
1723	The Importance of Contact Radius for Substrate-Independent Property Measurement of Thin Films. 1998 , 522, 27	30
1722	Nanoindentation of a Layered Crystal Structure Oxide. 1998 , 522, 275	3
1721	Nanoindentation Study of Amorphous Carbon Coatings for Magnetic Discs. 1998 , 522, 293	1
1720	Mechanical Properties of Ti(C, N) and TiN Thin Films on Cutting Tools Measured by Nanoindentation. 1998 , 522, 311	4
1719	Thin Film Mechanical Properties Through Nano-Indentation. 1998 , 522, 317	5
1718	Nanoindentation Characterization of Microphases in Sn-3.5Ag Eutectic Solder Joints. 1998 , 522, 339	8
1717	Effect of Carbon on the Adhesion of Aluminum Films to Sapphire Substrates. 1998 , 522, 347	4
1716	Experimental Investigations of the Sneddon Solution and an Improved Solution for the Analysis of Nanoindentation Data. 1998 , 522, 39	18
1715	Annealing Effects on Nanoscratch Behavior of CaF ₂ Thin Films Growth on Si(111). 1998 , 522, 457	
1714	Nanoindentation Study of Very Low Stress Plasticity. 1998 , 522, 65	6
1713	Substrate Effects on Yield Point Phenomena in Epitaxial Thin Films. 1998 , 522, 89	

1712	Nanometer-Scale Measurements of Mechanical Properties and Composition in an Ion Implanted Titanium-Based Alloy. 1998 , 522, 95		
1711	Understanding and Tailoring the Mechanical Properties of Liga Fabricated Materials. 1998 , 546, 121		17
1710	Atomic force Microscopy to Quantify Local Mechanical Properties of Tissue. 1998 , 550, 137		
1709	Elastic and Plastic Properties of Gamma + Laves Phase In-situ Composite Alloys Using Nanoindentation Techniques. 1998 , 552, 1		
1708	Nitrogen Implantation Effects on the Chemical Bonding and Hardness of Boron and Boron Nitride Coatings. 1998 , 555, 371		
1707	Mechanical properties of human trabecular bone lamellae quantified by nanoindentation. 1998 , 6, 429-432		69
1706	Diamond Indenter Shaping Using Focused Ion Beam. 1998 , 4, 320-321		
1705	Nanomechanical Property Determination of Organic Matrix in Mollusc Shell Nacre: A Biocomposite. 1999 , 5, 984-985		
1704	Wear-Resistant Thin Films of Amorphous Carbon Nitride Prepared by Shielded Arc Ion Plating. 1999 , 38, L1131-L1133		10
1703	Designed Interphase Regions in Carbon Fiber Reinforced Vinyl Ester Matrix Composites. 1999 , 71, 395-416		10
1702	Using the P- δ analysis to deconvolute the nanoindentation response of hard-coated systems. <i>Journal of Materials Research</i> , 1999 , 14, 2283-2295	2.5	74
1701	Haasen plot analysis of the HallPetch effect in Cu/Nb nanolayer composites. <i>Journal of Materials Research</i> , 1999 , 14, 407-417	2.5	32
1700	Hard protective overlayers on viscoelastic-plastic substrates. <i>Journal of Materials Research</i> , 1999 , 14, 2210-2218	2.5	23
1699	The Indentation Load-depth Curve of Ceramics. <i>Journal of Materials Research</i> , 1999 , 14, 1471-1484	2.5	79
1698	The boron oxideBoric acid system: Nanoscale mechanical and wear properties. <i>Journal of Materials Research</i> , 1999 , 14, 3455-3466	2.5	24
1697	Synthesis of Sr ₂ KNb ₅ O ₁₅ Thin Films by Chemical Solution Deposition Method. <i>Journal of Materials Research</i> , 1999 , 14, 1495-1502	2.5	1
1696	Substrate composition effects on the interfacial fracture of tantalum nitride films. <i>Journal of Materials Research</i> , 1999 , 14, 2306-2313	2.5	12
1695	Rasterkraftmikroskopische Messungen an Eindringköpfen Measurement of Indenters with a Scanning Force Microscope. 1999 , 66, 511-517		

1694	Structure and Strength of Multilayers. 1999 , 24, 20-26		282
1693	Determination of elastic modulus of thin films and small specimens using beam bending methods. <i>Journal of Materials Research</i> , 1999 , 14, 2152-2161	2.5	33
1692	Indentation plastic displacement field: Part I. The case of soft films on hard substrates. <i>Journal of Materials Research</i> , 1999 , 14, 2196-2203	2.5	135
1691	Indentation plastic displacement field: Part II. The case of hard films on soft substrates. <i>Journal of Materials Research</i> , 1999 , 14, 2204-2209	2.5	113
1690	Accurate determination of the mechanical properties of thin aluminum films deposited on sapphire flats using nanoindentations. <i>Journal of Materials Research</i> , 1999 , 14, 2314-2327	2.5	74
1689	Deposition and mechanical properties of polycrystalline Y2O3/ZrO2 superlattices. <i>Journal of Materials Research</i> , 1999 , 14, 3614-3622	2.5	31
1688	Pyramidal indentation load-depth curve of viscoelastic materials. <i>Journal of Materials Research</i> , 1999 , 14, 4075-4086	2.5	98
1687	Strain gradient plasticity effect in indentation hardness of polymers. <i>Journal of Materials Research</i> , 1999 , 14, 4103-4110	2.5	282
1686	Tribological modification of aluminum by electron-cyclotron resonance plasma source ion implantation. 1999 , 17, 1996-2000		6
1685	Influence of substrate bias voltage on the properties of CNx films prepared by reactive magnetron sputtering. 1999 , 17, 899-908		27
1684	Polymerization of dual ion beam deposited CNx films with increasing N content. 1999 , 17, 584-592		21
1683	Effects of thermal annealing on the microstructure and mechanical properties of carbon-nitrogen films deposited by radio frequency-magnetron sputtering. 1999 , 17, 2811-2818		15
1682	Anisotropic nanoindentation of transcrystalline polypropylene by scanning force microscope using blade-like tips. 1999 , 74, 2966-2968		10
1681	Scratching resistance of diamond-like carbon coatings in the subnanometer regime. 1999 , 75, 1077-1079		31
1680	Implications of contact mechanics models for mechanical properties measurements using scanning force microscopy. 1999 , 17, 1779-1786		42
1679	Pulsed Laser Deposition of Superhard Nitride Coatings. 1999 , 14, 397-411		3
1678	Nanoindentation on AlGaN thin films. 1999 , 86, 6773-6778		59
1677	Influence of the spatial laser intensity distribution on laser nitriding of iron. 1999 , 86, 168-178		55

1676	Growth and physical properties of epitaxial metastable cubic TaN(001). 1999 , 75, 3808-3810		58
1675	Micromechanical properties of silica aerogels. 1999 , 75, 653-655		82
1674	Growth kinetics and relationship between structure and mechanical properties of a-C(N):H films deposited in acetylene/nitrogen atmospheres. 1999 , 17, 545-551		31
1673	Nanoscratch characterization of dual-ion-beam deposited C-doped boron nitride films. 1999 , 17, 3351-3357		3
1672	Establishing the relationship between process, structure, and properties of TiN films deposited by electron cyclotron resonance assisted reactive sputtering. I. Variations in hardness and roughness as a function of process parameters. 1999 , 17, 2850-2858		9
1671	Optimization of hardness by the control of microwave power in TiN thin film deposited by electron cyclotron resonance assisted sputtering in a nitrogen plasma. 1999 , 17, 2535-2541		3
1670	Nanocrystalline WC and WC/a-C composite coatings produced from intersected plasma fluxes at low deposition temperatures. 1999 , 17, 986-992		131
1669	A critical examination of the fundamental relations used in the analysis of nanoindentation data. <i>Journal of Materials Research</i> , 1999 , 14, 2296-2305	2.5	337
1668	Influence of deposition parameters on mechanical properties of sputter-deposited Cr ₂ O ₃ thin films. <i>Journal of Materials Research</i> , 1999 , 14, 3623-3629	2.5	21
1667	The Meyer hardness: A measure for plasticity?. <i>Journal of Materials Research</i> , 1999 , 14, 3630-3639	2.5	140
1666	Quantitative adhesion measures of multilayer films: Part II. Indentation of W/Cu, W/W, Cr/W. <i>Journal of Materials Research</i> , 1999 , 14, 3019-3026	2.5	83
1665	Dependence of the mechanical and structural properties of (Ti,Al)N films on the nitrogen content. <i>Journal of Materials Research</i> , 1999 , 14, 2830-2837	2.5	12
1664	A study of the submicron indent-induced plastic deformation. <i>Journal of Materials Research</i> , 1999 , 14, 2251-2258	2.5	41
1663	Shock synthesis of nanocrystalline Si by thermal spraying. <i>Journal of Materials Research</i> , 1999 , 14, 3489-3492		24
1662	Can stress-strain relationships be obtained from indentation curves using conical and pyramidal indenters?. <i>Journal of Materials Research</i> , 1999 , 14, 3493-3496	2.5	208
1661	Elastic properties of sub-stoichiometric titanium carbides: Comparison of FP-LMTO calculations and experimental results. 1999 , 110, 299-303		48
1660	Hard amorphous C _x Si _y N _z thin films deposited by RF nitrogen plasma assisted pulsed laser ablation of mixed graphite/Si ₃ N ₄ -targets. 1999 , 348, 103-113		50
1659	Elastic properties of thin h-BN films investigated by Brillouin light scattering. 1999 , 353, 137-143		33

1658	Elastic properties of hydrogen-free amorphous carbon thin films and their relation with carbon-carbon bonding. 1999 , 353, 208-213	41
1657	Wear mechanism of plasma-sprayed alumina coating in sliding contacts with harder asperities. 1999 , 225-229, 90-103	48
1656	Nanoindentation studies of titanium single crystals. 1999 , 20, 1051-5	70
1655	Determination of constitutive properties from spherical indentation data using neural networks. Part i: the case of pure kinematic hardening in plasticity laws. 1999 , 47, 1569-1588	103
1654	Ion irradiation hardening of C60 thin films. 1999 , 340, 201-204	9
1653	Hardness enhancement of sputtered Ni3Al/Ni multilayers. 1999 , 342, 188-193	24
1652	Determination of elastic modulus and Poisson's ratio of diamond-like carbon films. 1999 , 341, 207-210	76
1651	Nano-mechano-electrochemistry of the iron (100) surface in solution. 1999 , 473, 49-53	26
1650	The influence of helium co-implantation on ion-induced hardening of low activation ferritic steel evaluated by micro-indentation technique. 1999 , 271-272, 115-119	18
1649	Neutron irradiation induced amorphization of silicon carbide. 1999 , 273, 213-220	90
1648	Microstructural properties of superalloys investigated by nanoindentations in an atomic force microscope. 1999 , 47, 1043-1052	106
1647	Cross-sectional nanoindentation: a new technique for thin film interfacial adhesion characterization. 1999 , 47, 4405-4413	106
1646	The hardnesses and elastic moduli of pulsed laser deposited multilayer AlN/TiN thin films. 1999 , 30, 657-665	39
1645	Nano-mechanical properties profiles across dentin-enamel junction of human incisor teeth. 1999 , 7, 119-128	155
1644	Mechanical deformation of PZT thin films for MEMS applications. 1999 , 259, 126-131	52
1643	Mechanical properties of oxidized silicon nitride ceramics. 1999 , 259, 65-72	8
1642	Impurity effects on the adhesion of aluminum films on sapphire substrates. 1999 , 259, 253-260	8
1641	Determination of the mechanical properties of thin polyimide films deposited on a GaAs substrate by bulging and nanoindentation tests. 1999 , 262, 101-106	20

1640	Comparison of oxidation behaviour of sintered ceramics produced from various silicon nitride powders. 1999 , 263, 101-104	5
1639	Analysis of the thermomechanical behavior of TiNi shape memory alloy thin films by bulging and nanoindentation procedures. 1999 , 273-275, 727-732	35
1638	Mechanical characterisation of TiN/ZrN multi-layered coatings. 1999 , 92-93, 177-183	27
1637	Determination of dynamic mechanical properties of metals from single pendulum scratch tests. 1999 , 32, 153-160	7
1636	State-of-the-art overview: ion beam surface modification of polymers towards improving tribological properties. 1999 , 111, 29-40	215
1635	Mechanical properties of carbon nitride thin films prepared by ion beam assisted filtered cathodic vacuum arc deposition. 1999 , 112, 140-145	13
1634	Structure, mechanical and tribological properties of sputtered TiAlBN thin films. 1999 , 113, 126-133	64
1633	Oscillating sliding wear of mono- and multilayer ceramic coatings in air. 1999 , 113, 242-250	12
1632	Microstructure and mechanical behavior of arc-evaporated CrN coatings. 1999 , 114, 39-51	87
1631	Ion energy and momentum flux dependence of diamond-like carbon film synthesis in radio frequency discharges. 1999 , 114, 224-229	21
1630	Deposition of SiO _x films from O ₂ /HMDSO plasmas. 1999 , 116-119, 1033-1036	89
1629	Physical properties of room temperature deposited B ₄ C films prepared by dual-ion-beam deposition. 1999 , 115, 145-152	17
1628	Synthesis of diamond-like-carbon coatings by pulsed laser deposition: optimization of process parameters. 1999 , 116-119, 452-455	19
1627	The effect of boron additions on the tribological behaviour of TiN coatings produced by electron-beam evaporative PVD. 1999 , 116-119, 648-653	33
1626	Deposition and characterisation of multilayered PVD TiN/CrN coatings on cemented carbide. 1999 , 116-119, 108-115	31
1625	Time-dependent changes in the mechanical properties of diamond-like carbon films. 1999 , 122, 225-229	18
1624	Enhancement of graphite surface mechanical properties using carbon film from polymer precursor. 1999 , 122, 277-280	7
1623	Characterization of sputter-deposited chromium oxide thin films. 1999 , 120-121, 277-283	134

1622	The effect of rapid thermal processing (RTP) on TiN coatings deposited by PVD and the steel-turning performance of coated cemented carbide. 1999 , 120-121, 337-342	5
1621	Wear and friction behaviour of duplex-treated AISI 4140 steel. 1999 , 120-121, 502-508	30
1620	Study of RF PACVD diamond-like carbon coatings for space mechanism applications. 1999 , 120-121, 612-617	17
1619	The effect of nitrogen on the mechanical properties of tetrahedral amorphous carbon films deposited with a filtered cathodic vacuum arc. 1999 , 120-121, 601-606	38
1618	Mechanical properties and oxidation resistance of nanocomposite TiN/BiN _x physical-vapor-deposited thin films. 1999 , 120-121, 158-165	203
1617	Structure, hardness and mechanical properties of magnetron-sputtered titanium-aluminium boride films. 1999 , 120-121, 412-417	77
1616	Development of wear-resistant coatings for cobalt-base alloys. 1999 , 120-121, 509-518	7
1615	Wear resistance of multilayered PVD TiN/TaN on HSS. 1999 , 120-121, 528-534	40
1614	Stability, enhancement of elastic properties and structure of multilayered amorphous carbon films. 1999 , 138-139, 244-249	21
1613	Laser nitriding of iron: influence of the spatial laser intensity distribution. 1999 , 138-139, 266-270	17
1612	A continuum dislocation model of Vickers indentation on a zirconia. 1999 , 47, 2243-2257	7
1611	Theory of indentation of piezoelectric materials. 1999 , 47, 2153-2164	231
1610	Nanoindentation-induced defect-interface interactions: phenomena, methods and limitations. 1999 , 47, 4115-4123	78
1609	Use of ultramicroindentation to evaluate the degradation of sputtered coatings. 1999 , 52, 157-162	9
1608	Triple ion beam studies of radiation damage in 9Cr2WVTa ferritic/martensitic steel for a high power spallation neutron source. 1999 , 271-272, 385-390	29
1607	Influence of post-irradiation thermal annealing on the mechanical properties of ion irradiated layers in 316L stainless steel. 1999 , 271-272, 102-105	3
1606	Semiclosed-Cell Mullite Foams: Preparation and Macro- and Micromechanical Characterization. 1999 , 82, 961-968	37
1605	Indentation of Silicate-Glass Films on Al ₂ O ₃ Substrates. 1999 , 82, 1803-1808	14

1604	Mechanical- and Physical-Property Changes of Neutron-Irradiated Chemical-Vapor-Deposited Silicon Carbide. 1999 , 82, 2490-2496	46
1603	Relation between the reduced and unreduced hardness in nanomicroindentation tests. 1999 , 44, 775-781	10
1602	Scaling relationships in conical indentation of elastic-perfectly plastic solids. 1999 , 36, 1231-1243	175
1601	The elastic properties of trabecular and cortical bone tissues are similar: results from two microscopic measurement techniques. 1999 , 32, 437-41	425
1600	Elastic modulus and hardness of cortical and trabecular bone lamellae measured by nanoindentation in the human femur. 1999 , 32, 1005-12	725
1599	Recent Developments in Hardness Testing and their Implications for Standardisation. 1999 , 48, 449-452	3
1598	Mechanical properties of carbon-carbon composite components determined using nanoindentation. 1999 , 37, 1679-1684	33
1597	Nanotribologie: Messung von mechanischen Eigenschaften im Sub-Mikrometer-Bereich. 1999 , 11, 27-30	1
1596	Micromechanical properties of cementitious composites. 1999 , 32, 388-393	29
1595	A study of the effect of the fabrication process on diffusion in a layered thin film. 1999 , 5, 169-172	
1594	Rapid thermal processing of TiN coatings deposited by chemical and physical vapor deposition using a low-energy, high-current electron beam: Microstructural studies and properties. 1999 , 30, 2931-2939	8
1593	Nanohardness and chemical bonding of boron nitride films. 1999 , 343-344, 238-241	3
1592	Deposition and characterisation of TiAlBN coatings produced by direct electron-beam evaporation of Ti and Ti-Al-B-N material from a twin crucible source. 1999 , 343-344, 242-245	28
1591	Determination of coating mechanical properties using spherical indenters. 1999 , 355-356, 263-269	24
1590	Comparative study of thin film physical properties for TiN x deposited by DC magnetron sputtering under temperatures less than 100°C on monocrystalline silicon and polycrystalline iron substrates. 1999 , 355-356, 357-362	2
1589	Crystalline SiCN: a hard material rivals to cubic BN. 1999 , 355-356, 112-116	75
1588	Effect of ion bombardment on the properties of B4C thin films deposited by RF sputtering. 1999 , 355-356, 210-213	18
1587	The effect of fluence on the hardening of C60 films irradiated with He and N ions. 1999 , 148, 634-638	13

1586	Effects of high energy nitrogen implantation on stainless steel microstructure. 1999 , 148, 824-829	32
1585	Mechanical properties of bismuth implanted amorphous Ge film. 1999 , 148, 355-359	1
1584	Mechanical property changes of amorphous alumina induced by ion implantation. 1999 , 148, 735-739	7
1583	Structure and properties of carbon nitride films deposited by magnetron sputtering. 1999 , 60, 163-167	3
1582	A micromechanics model of the elastic properties of human dentine. 1999 , 44, 813-22	210
1581	High cycle fatigue of thin silver films investigated by dynamic microbeam deflection. 1999 , 41, 823-829	82
1580	Nano-indentation of copper thin films on silicon substrates. 1999 , 41, 951-957	283
1579	Band & crystalline forms of isotactic polypropylene investigated by nanoindentation. 1999 , 74, 195-200	31
1578	Mechanical and morphological variation of the human lumbar vertebral cortical and trabecular bone. 1999 , 44, 191-7	121
1577	Elastic properties of microstructural components of human bone tissue as measured by nanoindentation. 1999 , 45, 48-54	261
1576	Nanomechanical characterizations of metals and thin films. 1999 , 27, 302-306	41
1575	On the relationship between microhardness and glass transition temperature of some amorphous polymers. 1999 , 37, 1413-1419	59
1574	Mechanical Properties of Icosahedral AlPdMn Probed by Indentation at Variable Temperatures. 1999 , 172, 341-361	10
1573	Microhardness in Pure and Doped GaSb. 1999 , 174, 361-367	3
1572	Carbon films with an sp ² network structure. 1999 , 60, 10903-10907	136
1571	Nanoindentation and contact stiffness measurement using force modulation with a capacitive load-displacement transducer. 1999 , 70, 2408-2413	248
1570	The effect of the indenter load on the nanohardness of ductile metals: An experimental study on polycrystalline work-hardened and annealed oxygen-free copper. 1999 , 79, 2979-3000	161
1569	Electronic structure and mechanical properties of resistant coatings: The chromium molybdenum nitride system. 1999 , 17, 1024-1030	24

1568	Role of nitrogen in the formation of hard and elastic CN _x thin films by reactive magnetron sputtering. 1999 , 59, 5162-5169	413
1567	Crystalline SiC thin films deposited at room temperature using pulsed laser ablation of graphite and magnetron sputtering of silicon. 1999 , 17, 909-916	14
1566	Boron carbide thin film deposition using supersonic plasma jet with substrate biasing. 1999 , 8, 1878-1884	11
1565	High-rate through-mold electrodeposition of thick (>200 /spl mu/m) NiFe MEMS components with uniform composition. 1999 , 8, 384-392	43
1564	Extreme precipitation strengthening in ion-implanted nickel. 1999 , 86, 6547-6556	10
1563	Finite-element modeling of nanoindentation. 1999 , 85, 1460-1474	196
1562	Effect of laser intensity on the microstructural and mechanical properties of pulsed laser deposited diamond-like-carbon thin films. 1999 , 85, 3860-3865	84
1561	Variations in the individual thick lamellar properties within osteons by nanoindentation. 1999 , 25, 295-300	193
1560	High-pressure study of titanium carbide. 1999 , 289, 24-27	43
1559	Ionic migration effects on the mechanical properties of glass surfaces. 1999 , 247, 232-236	10
1558	Mechanical properties of amorphous carbon nitride films synthesized by electron cyclotron resonance microwave plasma chemical vapor deposition. 1999 , 254, 180-185	18
1557	Substrate temperature effects on the microhardness and adhesion of diamond-like thin films. 1999 , 8, 563-566	21
1556	Micromechanical properties of BN and B ₁₀ N coatings obtained by r.f. plasma-assisted CVD. 1999 , 8, 423-427	35
1555	Boron carbide thin films deposited by tuned-substrate RF magnetron sputtering. 1999 , 8, 402-405	69
1554	A comparative study of composition, structure and elastic properties of boron nitride films deposited by magnetron and ion beam sputtering. 1999 , 8, 410-414	2
1553	Nanoindentation and nanoscratching studies of amorphous carbon films. 1999 , 8, 558-562	50
1552	Ultramicrohardness cross-profiling of CVD diamond/steel brazed junctions. 1999 , 8, 855-858	6
1551	Combined electrical and mechanical properties of titanium nitride thin films as metallization materials. 1999 , 86, 5296-5298	74

1550	Heat treatment of tetrahedral amorphous carbon films grown by filtered cathodic vacuum-arc technique. 1999 , 8, 1328-1332		10
1549	Unbalanced magnetron sputtered carbon composite coatings. 1999 , 17, 1991-1995		16
1548	A method of determining the elastic properties of diamond-like carbon films. 1999 , 8, 1067-1072		17
1547	Elastic and plastic properties of GaN determined by nano-indentation of bulk crystal. 1999 , 75, 2070-2072		161
1546	Evaluation of mechanical properties in nanometer scale using AFM-based nanoindentation tester. 1999 , 12, 1049-1052		47
1545	Atmospheric Pressure Chemical Vapor Deposition of Titanium Aluminum Nitride Films. 1999 , 11, 3490-3496		8
1544	Dynamic ball hardness tests on polymers. 1999 , 38, 669-680		9
1543	Substrate effects on nanoindentation mechanical property measurement of soft films on hard substrates. <i>Journal of Materials Research</i> , 1999 , 14, 292-301	2.5	279
1542	Hardness enhancement and elastic modulus behaviour in sputtered Ag/Ni multilayers with different modulation wavelengths. 1999 , 79, 485-500		38
1541	Detection of residual stresses in glass-penetrated polycrystalline alumina with nanoindentation. 1999 , 79, 835-845		2
1540	The effect of tip momentum on the contact stiffness and yielding during nanoindentation testing. 1999 , 79, 577-592		35
1539	Fatigue of Thin Silver Films Investigated by Dynamic Microbeam Deflection. 1999 , 594, 201		1
1538	Stress in Hydrogenated Microcrystalline Silicon Thin Films. 1999 , 557, 537		3
1537	Macroscopic Modeling of Fine Line Adhesion Tests. 1999 , 563, 297		5
1536	Role of Film Hardness on the Polish Rates of Metal Thin Films. 1999 , 566, 123		
1535	Organic/Inorganic Hybrid Sol-Gel Derived Hard Coatings on Plastics. 1999 , 576, 319		2
1534	The Strain Gradient Effects in Micro-Indentation Hardness Experiments. 1999 , 578, 53		1
1533	Ion Irradiation Induced Crosslinking Effects on Mechanical Properties of Photoresist Films. 1999 , 585, 289		3

1532	Computing Thin Film Mechanical Properties With the Oliver and Pharr Method. 1999 , 593, 317	
1531	Nanomechanical Properties of Amorphous Carbon and Carbon Nitride Thin Films Prepared by Shielded Arc Ion Plating. 1999 , 593, 371	1
1530	Tensile Properties of Amorphous Diamond Films. 1999 , 593, 465	1
1529	Nanoindentation Probing of Environmental Effects on Polymer Coating Properties. 1999 , 594, 245	
1528	Nanoindentation Study of Amorphous Metal Multilayered Thin Films. 1999 , 594, 25	5
1527	Tensile Properties of Amorphous Diamond Films. 1999 , 594, 295	2
1526	Nanomechanical Properties of Amorphous Carbon and Carbon Nitride Thin Films Prepared by Shielded Arc Ion Plating. 1999 , 594, 319	1
1525	Superlayer Residual Stress Effect on the Indentation Adhesion Measurements. 1999 , 594, 383	14
1524	On the Robustness of Scratch Testing for Thin Films: The Issue of Tip Geometry for Critical Load Measurement. 1999 , 594, 395	1
1523	Effect of Annealing on Microstructure and Properties of Al ₃ Ni Multilayered Films. 1999 , 594, 43	
1522	Quantitative Study of Nanoscale Contact and Pre-Contact Mechanics Using Force Modulation. 1999 , 594, 471	3
1521	Hardness and Elastic Modulus Measurements of AlN and TiN Sub-Micron Thin Films Using the Continuous Stiffness Measurement Technique with Fem Analysis. 1999 , 594, 507	
1520	A Methodology for the Calibration of Spherical Indenters. 1999 , 594, 525	4
1519	Mechanical Characterization of Surfaces by Nanotribological Measurements of Sliding and Abrasive Terms. 1999 , 594, 531	4
1518	Hall-Petch Hardening in Pulsed Laser Deposited Nickel and Copper Thin Films. 1999 , 594, 69	2
1517	The Microstructure and Nanoindentation Behaviour of TiN/NbN Multilayers. 1999 , 594, 9	2
1516	Computing Thin Film Mechanical Properties with the Oliver and Pharr Method. 1999 , 594, 301	
1515	Properties of amorphous AlCuY alloy metallizations.	0

1514	Mechanical Properties and Thermal Stability of Nanocrystalline Gold Prepared by Gas Deposition Method. 1999 , 40, 412-415	14
1513	Measurement of in-plane displacement fields by a spectral phase algorithm applied to numerical speckle photograph for microtensile tests. 2000 , 11, 131-145	4
1512	Contact Mechanics. 2000 , 1-19	
1511	Characterization of LiNbO ₃ /Ti(20 nm)/Pt(10 nm)/Au(100 nm)/Au(10 nm) lithium niobate optical modulator by depth sensing nanoindentation and scratching techniques. 2000 ,	1
1510	Nanoindentation of GaAs compliant substrates. 2000 , 80, 2899-2911	23
1509	Protective coatings for Al metallizations obtained by plasma polymerization. 2000 ,	1
1508	Microstructure and mechanical properties near interface between microarc oxidation coating and Al alloy substrate. 2000 , 16, 344-348	9
1507	Ablation-Induced Stresses in Fused Silica by 157-nm F2-Laser irradiation. 2000 , 617, 331	4
1506	Processing and Properties of Gamma+Laves Phase in-situ Composite Coatings Deposited via Magnetron Sputtering. 2000 , 646, 335	
1505	Relating Nanostructures to Mechanical Properties in Ion-Implanted Materials. 2000 , 647, 1	0
1504	A Scaling Approach to Modeling Indentation Measurements. 2000 , 649, 111	1
1503	Finite Element Modeling of Nanoindentation Measurements of Crystalline and Amorphous Si. 2000 , 649, 121	2
1502	Sub-Micrometer Spatially Resolved Measurements of Mechanical Properties and Correlation to Microstructure and Composition. 2000 , 649, 321	
1501	3D FIB and AFM mapping of Nanoindentation Zones. 2000 , 649, 371	1
1500	Three-Dimensional Contact Mechanics Studies of Zdol Hard Disk Lubricants. 2000 , 649, 391	
1499	Nanoindentation Measurements of Mechanical Properties of Polystyrene Thin Films. 2000 , 649, 7211	3
1498	Nanoindentation Evaluation of Brittle Films on Metals Natalia. 2000 , 649, 761	
1497	Elastic and Inelastic Properties of Electroplated Nickel Used in LIGA Techniques. 2000 , 657, 411	

1496	The P _B 2 relationship in indentation. <i>Journal of Materials Research</i> , 2000 , 15, 1209-1212	2.5	89
1495	A Finite Element Study on the Nanoindentation of Thin Films. 2000 , 649, 131		2
1494	Load-Displacement Behavior During Sharp Indentation of Viscous-Elastic-Plastic Materials. 2000 , 649, 151		1
1493	On the Measurement of Stress-Strain Curves by Spherical Indentation. 2000 , 649, 341		
1492	The Effects of Creep on Elastic Modulus Measurement Using Nanoindentation. 2000 , 649, 711		2
1491	Nanoindentation of Poly (Methyl Methacrylate). 2000 , 649, 7101		1
1490	Correlation of Nanoindentation and Conventional Mechanical Property Measurements. 2000 , 649, 7111		18
1489	Influence of Tipradius and Substrate on the Nanotribological Characterization of Thin DLC Coatings. 2000 , 649, 931		2
1488	Quantitative determination of Young's modulus on a biphasic polymer system using atomic force microscopy. 2000 , 30, 185-189		81
1487	Whisker-reinforced dental core buildup composites: effect of filler level on mechanical properties. 2000 , 52, 812-8		10
1486	Room-Temperature Plasticity of InAs. 2000 , 179, 153-158		14
1485	Experimental and Theoretical Aspects of the Modern Nanotribology. 2000 , 179, 3-75		56
1484	Inference of Mechanical Properties from Instrumented Depth Sensing Indentation at Tiny Loads and Indentation Depths. 2000 , 35, 377-399		50
1483	Vertebral trabecular bone microscopic tissue elastic modulus and hardness do not change in ovariectomized rats. 2000 , 18, 333-6		57
1482	Age, gender, and bone lamellae elastic moduli. 2000 , 18, 432-7		96
1481	An investigation of the relationship between position within coater and pyrolytic carbon characteristics using nanoindentation. 2000 , 38, 645-653		8
1480	Application of depth-sensing microindentation testing to study of interfacial transition zone in reinforced concrete. 2000 , 30, 1299-1304		68
1479	Effects of helium implantation on hardness of pure iron and a reduced activation ferritic-bainitic steel. 2000 , 283-287, 470-473		19

1478	Helium and hydrogen induced hardening in 316LN stainless steel. 2000 , 282, 131-136	103
1477	Radiation damage in neutron-irradiated yttria-stabilized-zirconia single crystals. 2000 , 277, 199-203	34
1476	Hardness and defect structures in EC316LN austenitic alloy irradiated under a simulated spallation neutron source environment using triple ion-beams. 2000 , 278, 266-272	21
1475	Construction and testing of a nanomachining instrument. 2000 , 24, 320-328	48
1474	Annealing effects on the structure and mechanical properties of r.f.-sputtered CrB hard thin films. 2000 , 359, 165-170	35
1473	Optical and mechanical properties of TiO ₂ /SiO ₂ /organically modified silane composite films prepared by sol-gel processing. 2000 , 359, 177-183	87
1472	Hardness measurements of Ti and TiC multilayers: a model. 2000 , 359, 228-235	23
1471	Tribological properties of a-C : N and a-C films prepared by shielded arc ion plating. 2000 , 59, 567-573	11
1470	A review of analysis methods for sub-micron indentation testing. 2000 , 58, 569-585	239
1469	Wear and hardness of carbon overcoats on magnetic recording sliders. 2000 , 243, 18-24	35
1468	Nanindentation and scratch resistance testing on magnetic tape heads coated with ultra-thin amorphous carbon layers. 2000 , 244, 79-84	11
1467	Nanoindentation as a tool for characterising the mechanical properties of tribological transfer films. 2000 , 245, 196-203	29
1466	Effect of thermal oxidation on indentation and scratching of single-crystal silicon carbide on microscale. 2000 , 237, 116-128	17
1465	Contact damage of poly(methylmethacrylate) during complex microdisplacements. 2000 , 240, 27-39	51
1464	Elastic modulus, indentation pressure and fracture toughness of hybrid coatings on glass. 2000 , 366, 139-149	85
1463	Influence of residual stresses on the mechanical properties of TiC _x N _{1-x} (x=0, 0.15, 0.45) thin films deposited by arc evaporation. 2000 , 371, 167-177	140
1462	Mechanical properties and fracture toughness of multilayer hard coatings using nanoindentation. 2000 , 371, 178-182	69
1461	Determination of the elastic modulus and hardness of sol-gel coatings on glass: influence of indenter geometry. 2000 , 372, 134-143	42

1460	Mechanical and tribological properties of tungsten carbide sputtered coatings. 2000 , 373, 282-286	46
1459	Wear resistance of carbon nitride thin films formed by ion beam assisted deposition. 2000 , 376, 152-158	15
1458	Dependence of microstructure and nanomechanical properties of amorphous carbon nitride thin films on vacuum annealing. 2000 , 376, 170-178	11
1457	Deposition of (Ti, Al)N films by filtered cathodic vacuum arc. 2000 , 379, 76-82	15
1456	Analysis of the mechanical behavior of shape memory polymer membranes by nanoindentation, bulging and point membrane deflection tests. 2000 , 379, 156-165	92
1455	Hardness measurements at shallow depths on ultra-thin amorphous carbon films deposited onto silicon and Al ₂ O ₃ /TiC substrates. 2000 , 379, 166-172	28
1454	Limits of using bilinear stress-strain curve for finite element modeling of nanoindentation response on bulk materials. 2000 , 379, 147-155	92
1453	Micromechanical estimation of composite hardness using nanoindentation technique for thin-film coated system. 2000 , 285, 172-179	53
1452	Indentation analysis of sub-surface deformation in ductile materials after solid particle erosion. 2000 , 283, 203-210	3
1451	Microbridge testing of silicon oxide/silicon nitride bilayer films deposited on silicon wafers. 2000 , 48, 4901-4915	36
1450	Effect of chromium nitride coating on the corrosion and wear resistance of stainless steel. 2000 , 156, 47-64	69
1449	Investigations of nano- and macro-wear of magnetic tape head materials. 2000 , 33, 673-681	5
1448	Growth, microstructure, and mechanical properties of arc evaporated TiC _x N _{1-x} (0 ≤ x ≤ 1) films. 2000 , 126, 1-14	129
1447	Growth and characterisation of hard and elastic carbon nitride thin films. 2000 , 128-129, 126-132	14
1446	The use of the loading curve to assess soft coatings. 2000 , 127, 265-272	48
1445	A model for coated surface hardness. 2000 , 131, 457-461	16
1444	Structural and tribological characterization of multilayer ta-C films prepared by filtered cathodic vacuum arc with substrate pulse biasing. 2000 , 132, 228-232	63
1443	What is indentation hardness?. 2000 , 133-134, 417-424	134

1442	Energy dissipation, fracture toughness and the indentation load-displacement curve of coated materials. 2000 , 135, 60-68	97
1441	The surface damage in titanium nitride associated with lateral sputtering by argon cluster ions. 2000 , 133-134, 253-258	7
1440	Microtribological characterization of group V and VI metal-carbide wear-resistant coatings effective in the metal casting industry. 2000 , 133-134, 314-318	13
1439	Comparison of structure and properties of SiO _x coatings deposited by reactive pulsed magnetron sputtering (PMS) and by hollow cathode activated EB evaporation (HAD). 2000 , 133-134, 555-560	17
1438	Deposition, microstructure and mechanical and tribological properties of magnetron sputtered TiN/TiAlN multilayers. 2000 , 123, 219-226	66
1437	Mechanical properties of hard chromium tungsten nitride coatings. 2000 , 125, 179-184	73
1436	Correlation between bonding structure and mechanical properties of amorphous carbon nitride thin films. 2000 , 125, 284-288	13
1435	Mechanical properties of plasma deposited polymer coatings. 2000 , 125, 383-387	37
1434	Hard and superhard nanocomposite coatings. 2000 , 125, 322-330	863
1433	The effect of substrate temperature and biasing on the mechanical properties and structure of sputtered titanium nitride thin films. 2000 , 125, 335-340	205
1432	Evaluation of a flexible physical vapor deposited TiC coating system. 2000 , 124, 154-161	30
1431	Evaluation of magnetron-sputtered TiB ₂ intended for tribological applications. 2000 , 124, 253-261	87
1430	Scratch wear resistance of nanoscale super thin carbon nitride overcoat evaluated by AFM with a diamond tip. 2000 , 126, 181-194	31
1429	Comparison of three advanced hard coatings for stamping applications. 2000 , 127, 38-42	18
1428	Elastic and plastic energies in sputtered multilayered Ti ₄₀ N films estimated by nanoindentation. 2000 , 126, 131-135	32
1427	Requirement of a robust method for the precise determination of the contact point in the depth sensing hardness test. 2000 , 27, 43-51	24
1426	Nanoindentation and strain characteristics of nanostructured boride/nitride films. 2000 , 42, 1671-1674	13
1425	Determination of the Young's modulus and hysteresis by the indentation method. 2000 , 45, 667-671	0

1424	Discrete and continuous deformation during nanoindentation of thin films. 2000 , 48, 2277-2295	450
1423	Design and evaluation of tribological coatings. 2000 , 246, 20-33	298
1422	Yttria stabilized zirconia reinforced hydroxyapatite coatings. 2000 , 127, 66-75	47
1421	Mechanical and tribological properties of non-hydrogenated DLC films synthesized by IBAD. 2000 , 128-129, 324-328	57
1420	Nanocomposite TiC/a-C:H hard coatings deposited by reactive PVD. 2000 , 133-134, 138-144	225
1419	Single-phased hard coatings of the metastable Cr ₃ (C _{0.8} N _{0.2}) ₂ ternary phase grown by low pressure MOCVD. 2000 , 133-134, 198-202	4
1418	Development of continuous stiffness measurement technique for composite magnetic tapes. 2000 , 42, 929-935	30
1417	Local mechanical properties of tensile-deformed Al-8.4 at.%Li alloys examined by nanoindentation under an atomic force microscope. 2000 , 43, 15-20	7
1416	Plastic zone evolution around small scale indentations. 2000 , 43, 783-788	38
1415	Thickness dependence of elastic modulus and hardness of on-wafer low-k ultrathin polytetrafluoroethylene films. 2000 , 42, 687-694	43
1414	Indentation modulus and hardness of whisker-reinforced heat-cured dental resin composites. 2000 , 16, 248-54	46
1413	The mechanical properties of alumina films formed by plasma deposition and by ion irradiation of sapphire. 2000 , 166-167, 140-147	26
1412	Nanoindentation with a Knoop indenter. 2000 , 377-378, 635-639	29
1411	Microstructure-property relationships in arc-evaporated CrN coatings. 2000 , 377-378, 407-412	39
1410	Nanoindentation and FEM study of the effect of internal stress on micro/nano mechanical property of thin CN _x films. 2000 , 377-378, 138-147	44
1409	Deposition of well adhering cBN films up to 2 μm thickness by B ₄ C gradient layer system. 2000 , 377-378, 331-339	61
1408	Progress in determination of the area function of indenters used for nanoindentation. 2000 , 377-378, 394-400	123
1407	Continuous stiffness measurement and creep behavior of composite magnetic tapes. 2000 , 377-378, 401-406	33

1406	Influence of process parameters on the structure and the properties of ZrO ₂ coatings deposited by reactive pulsed magnetron sputtering (PMS). 2000 , 377-378, 37-42	31
1405	Improvement of hardness in plasma polymerized hexamethyldisiloxane coatings by silica-like surface modification. 2000 , 377-378, 109-114	89
1404	Effects on the deposition and mechanical properties of diamond-like carbon film using different inert gases in methane plasma. 2000 , 377-378, 198-202	18
1403	Three-dimensional morphometry of the L6 vertebra in the ovariectomized rat model of osteoporosis: biomechanical implications. 2000 , 15, 1981-91	95
1402	The role of plasticity in bimaterial fracture with ductile interlayers. 2000 , 31, 863-872	7
1401	Mechanical properties of laser-deposited composite boride coating using nanoindentation. 2000 , 31, 401-408	36
1400	The role of plasticity in bimaterial fracture with ductile interlayers. 2000 , 31, 863-872	23
1399	Morphology of hybrid coatings based on polyester, melamine resin, and silica and the relation with hardness and scratch resistance. 2000 , 72, 83-89	15
1398	Scratch durability of automotive clear coatings: A quantitative, reliable and robust methodology. 2000 , 72, 79-88	42
1397	Evaluation of the mechanical properties of conventionally-cast Al matrix composites reinforced by quasicrystalline Al-Cu-Fe particles using continuous ball indentation technique. 2000 , 6, 415-422	13
1396	Characterization of CN _x /SiO _y films prepared by the inductively coupled RF discharge. 2000 , 50, 453-456	
1395	Analysis of Nanoindentation Test Data. 2000 , 36-60	
1394	In-Situ Mechanical Property Evaluation of Dielectric Ceramics in Multilayer Capacitors. 2000 ,	1
1393	Nanomechanical Properties of a Biocomposite, Mollusk Shell Nacre. 2000 , 6, 898-899	
1392	Methodology for Investigating the Mechanical Strength of Reforming Catalyst Beads. 2000 , 55, 67-85	35
1391	Introduction to Contact Mechanics. 2000 ,	2
1390	Nano-scratch behavior of a bulk Zr-10Al-5Ti-17.9Cu-14.6Ni amorphous alloy. <i>Journal of Materials Research</i> , 2000 , 15, 913-922	2.5 79
1389	Mechanical properties of biocompatible protein polymer thin films. <i>Journal of Materials Research</i> , 2000 , 15, 231-242	2.5 33

1388	Crystallization and nanoindentation behavior of a bulk ZrAlTiCuNi amorphous alloy. <i>Journal of Materials Research</i> , 2000 , 15, 798-807	2.5	117
1387	Determining the Area Function of Spherical Indenters for Nanoindentation.. 2000 , 649, 7171		7
1386	Microstructure and Mechanical Properties of Electroplated Cu Thin Films. 2000 , 649, 531		19
1385	Articles. <i>Journal of Materials Research</i> , 2000 , 15, 1766-1772	2.5	18
1384	Numerical simulation of micro-scratch tests for coating/substrate composites. 2000 , 8, 19-40		7
1383	Nanoindentation Test Standards. 2000 , 126-141		
1382	Mechanical properties of multilayer pvd Ti/TiB ₂ coatings. 2000 , 16, 122-126		17
1381	Electronic structure and mechanical properties of hard coatings from the chromium tungsten nitride system. 2000 , 18, 2851		39
1380	Spectroscopy of bonding in hard graphitic carbon nitride films: Superstructure of basal planes and hardening mechanisms. 2000 , 62, 4261-4264		61
1379	Measurement of mechanical properties for dense and porous polymer films having a low dielectric constant. 2000 , 88, 5744-5750		18
1378	Thin film characterization by acoustic emission monitoring of nanoindentation.		1
1377	Role of delocalized nitrogen in determining the local atomic arrangement and mechanical properties of amorphous carbon nitride thin films. 2000 , 18, 2964-2971		16
1376	A study of microindentation hardness tests by mechanism-based strain gradient plasticity. <i>Journal of Materials Research</i> , 2000 , 15, 1786-1796	2.5	178
1375	Growth, structure, and mechanical properties of CN _x H _y films deposited by dc magnetron sputtering in N ₂ /Ar/H ₂ discharges. 2000 , 18, 2349		46
1374	Nanoindentation investigation of Ti/TiN multilayers films. 2000 , 87, 7753-7757		74
1373	Experimental determination of scanning probe microscope cantilever spring constants utilizing a nanoindentation apparatus. 2000 , 71, 3769		56
1372	The influence of oxide and adsorbates on the nanomechanical response of silicon surfaces. <i>Journal of Materials Research</i> , 2000 , 15, 546-553	2.5	37
1371	Mechanical properties of niobium disulfide and its hydrated sodium cation intercalation compound. <i>Journal of Materials Research</i> , 2000 , 15, 2061-2064	2.5	6

- 1370 Hardness obtained from conical indentations with various cone angles. *Journal of Materials Research*, **2000**, 15, 2830-2835 2.5 41
- 1369 High-temperature stability of epitaxial, non-isostructural Mo/NbN superlattices. *Journal of Materials Research*, **2000**, 15, 554-559 2.5 21
- 1368 Identification strategies for recovering material parameters from indentation experiments. **2000**, 181-190
- 1367 THE EFFECT OF KINEMATIC HARDENING ON SPHERICAL INDENTATION. **2000**, 11, 55-58
- 1366 DENSIFICATION IN FUSED SILICA AND OTHER GLASSES, AS A MATERIAL INSTABILITY. **2000**, 11, 87-94
- 1365 Nanoscale mechanical properties of polymer composites: Changes in elastic modulus and measurement of ion penetration depth due to β -radiation. *Journal of Materials Research*, **2000**, 15, 838-841^{2.5}
- 1364 Measurement of the loss tangent of low-density polyethylene with a nanoindentation technique. *Journal of Materials Research*, **2000**, 15, 1195-1198 2.5 88
- 1363 Elastic and Plastic Properties of Mo₃Si Measured by Nanoindentation. **2000**, 646, 239 9
- 1362 Influence of underlying interlevel dielectric films on extrusion formation in aluminum interconnects. **2000**, 18, 2826 16
- 1361 Nanoindentation hardness of particles used in magnetorheological finishing (MRF). **2000**, 39, 5194-204 37
- 1360 The hardness and modulus of elasticity of primary molar teeth: an ultra-micro-indentation study. **2000**, 28, 589-94 192
- 1359 Hardness and elastic properties of Ti(C_xN_{1-x}), Zr(C_xN_{1-x}) and Hf(C_xN_{1-x}). **2000**, 309, L5-L9 113
- 1358 Heterogeneity of bone lamellar-level elastic moduli. **2000**, 26, 603-9 206
- 1357 Mechanical properties of aluminide matrix composites fabricated by reactive hot-pressing in several environments. **2000**, 8, 1035-1042 6
- 1356 Densification and residual stresses induced in glass surfaces by Vickers indentations. **2000**, 273, 19-24 13
- 1355 Subcritical crack growth in a hybrid coating. **2000**, 275, 137-141 2
- 1354 Elastic modulus, hardness and fracture toughness of SiO₂-filled methyltrimethoxysilane coatings on glass substrates. **2000**, 265, 51-60 47
- 1353 Chemical bonding, structure, and hardness of carbon nitride thin films. **2000**, 9, 1790-1794 14

1352	Mechanism of Al-Cu-Fe Quasicrystal Plastic Deformation Studied by Instrumented Sharp Indentation. 2000 , 649, 7121	1
1351	Carbon nitride films on orthopedic substrates. 2000 , 9, 1984-1991	58
1350	Bonding and hardness in nonhydrogenated carbon films with moderate sp ³ content. 2000 , 87, 8174-8180	51
1349	Influence of plasma parameters on the growth and properties of magnetron sputtered CN _x thin films. 2000 , 88, 524-532	68
1348	Mapping surface elastic properties of stiff and compliant materials on the nanoscale using ultrasonic force microscopy. 2000 , 80, 2299-2323	57
1347	Plasma deposition of optical films and coatings: A review. 2000 , 18, 2619-2645	428
1346	Comparative study of anneal-induced modifications of amorphous carbon films deposited by dc magnetron sputtering at different argon plasma pressures. 2000 , 9, 680-684	27
1345	Modulus Determination of Polymer Matrix Composites: Comparison of Nanoindentation and Dynamic Mechanical Analysis. 2000 , 649, 351	2
1344	On the nature, properties and wear response of s-phase (nitrogen-alloyed stainless steel) coatings on AISI 316L. 2000 , 214, 181-198	4
1343	Properties and structures of diamond-like carbon film deposited using He, Ne, Ar/methane mixture by plasma enhanced chemical vapor deposition. 2000 , 87, 8122-8131	31
1342	Interfacial cracking in thin film structures. 2000 , 26, 47-71	0
1341	Plastic Zone Development Around Nanoindentations. 2000 , 649, 7141	3
1340	Electrical and mechanical properties of C70 fullerene and graphite under high pressures studied using designer diamond anvils. 2000 , 85, 5364-7	78
1339	Elastoplastic Properties of Starch-Based Materials as Revealed by Microindentation Measurements. 2000 , 39, 749-759	10
1338	Nanostructure and Mechanical Measurement of Highly Oriented Lamellae of Melt-Drawn HDPE by Scanning Probe Microscopy. 2000 , 33, 7521-7528	21
1337	Nanoindentation and adhesion of sol-gel-derived hard coatings on polyester. <i>Journal of Materials Research</i> , 2000 , 15, 148-154	2.5 65
1336	Migration-resistant amorphous AlY metallizations for surface acoustic wave filters.	
1335	Nitrogenated carbon films deposited using filtered cathodic arc. 2000 , 9, 668-674	19

1334	Deposition of nanocomposite CN _x /SiO ₂ films in inductively coupled r.f. discharge. 2000 , 9, 552-555	2
1333	Structural and mechanical properties of CN x thin films prepared by magnetron sputtering. 2000 , 9, 566-572	32
1332	Nanoindentation of diamond, graphite and fullerene films. 2000 , 9, 170-184	110
1331	Simulation of Nanoindentation Test Data. 2000 , 83-89	
1330	Comprehensive study on the properties of multilayered amorphous carbon films. 2000 , 9, 756-760	28
1329	Nanomechanical Properties of Polymers Determined From Nanoindentation Experiments. 2001 , 123, 624-631	103
1328	Nanoindentation Techniques. 2001 , 5908-5915	5
1327	Theoretical and experimental investigations on elastic properties of substoichiometric titanium nitrides: influence of lattice vacancies. 2001 , 3, 1319-1321	19
1326	Effects of processing history on the modulus of silica xerogel films. 2001 , 90, 5832-5834	47
1325	Mechanical properties of cubic BC ₂ N, a new superhard phase. 2001 , 10, 2228-2231	137
1324	Graded materials for resistance to contact deformation and damage. 2001 , 292, 2447-51	615
1323	Tribological and mechanical properties of diamond-like carbon prepared by high-density plasma. 2001 , 10, 1063-1069	49
1322	Diamond-like carbon films in multilayered interference coatings for IR optical elements. 2001 , 10, 1846-1849	37
1321	Quantitative imaging of nanoscale mechanical properties using hybrid nanoindentation and force modulation. 2001 , 90, 1192-1200	210
1320	Thin Films: Plasticity. 2001 , 9262-9273	5
1319	Low friction ta-C films with hydrogen reservoirs. 2001 , 10, 1030-1035	12
1318	Biaxial elastic modulus of very thin diamond-like carbon (DLC) films. 2001 , 10, 2069-2074	29
1317	Preparation and evaluation of tungsten tips relative to diamond for nanoindentation of soft materials. 2001 , 72, 2804-2810	43

1316	Mechanical properties and characterisation of very thin CN _x films synthesised by IBAD. 2001 , 10, 2199-2211	24
1315	Nanoindentation of CVD diamond: comparison of an FE model with analytical and experimental data. 2001 , 10, 765-769	23
1314	Bonding characterization and nano-indentation study of the amorphous SiC _x N _y films with and without hydrogen incorporation. 2001 , 10, 1916-1920	15
1313	Quantitative in situ nanoindentation in an electron microscope. 2001 , 79, 1625-1627	142
1312	The ideal strength of tungsten. 2001 , 81, 1725-1747	204
1311	The functional width of the dentino-enamel junction determined by AFM-based nanoscratching. 2001 , 135, 294-301	93
1310	A study of microstructure and nanomechanical properties of silicon incorporated DLC films deposited on silicon substrates. 2001 , 10, 1070-1075	91
1309	Nanoscale characterisation of interphase in silane treated glass fibre composites. 2001 , 32, 607-618	130
1308	Interfacial properties of polymer composites measured by push-out and fragmentation tests. 2001 , 32, 1543-1551	101
1307	Mechanical properties of silica aerogels measured by microindentation: influence of sol-gel processing parameters and carbon addition. 2001 , 285, 244-250	52
1306	Relationship between the optical and mechanical properties of fluorinated amorphous carbon thin films. 2001 , 291, 153-159	20
1305	Correlation of nanomechanical and nanotribological behavior of thin DLC coatings on different substrates. 2001 , 482-485, 1125-1129	31
1304	Atomic force microscopy of biomaterials surfaces and interfaces. 2001 , 491, 303-332	161
1303	Mechanical properties of in situ demineralised human enamel measured by AFM nanoindentation. 2001 , 491, 456-467	58
1302	Porous silica materials as low-k dielectrics for electronic and optical interconnects. 2001 , 398-399, 513-522	141
1301	Accurate determination of Young's modulus and Poisson's ratio of thin films by a combination of acoustic microscopy and nanoindentation. 2001 , 398-399, 299-305	58
1300	Modelling the hardness response of bulk materials, single and multilayer coatings. 2001 , 398-399, 291-298	37
1299	Mechanical and tribological properties of cBN films on silicon and tungsten carbide substrates. 2001 , 398-399, 142-149	37

1298	Nitrogen-doped plasma enhanced chemical vapor deposited (PECVD) amorphous carbon: processes and properties. 2001 , 398-399, 163-169	19
1297	Wear resistant carbon coatings deposited without substrate bias voltage. 2001 , 398-399, 187-192	2
1296	Probing for mechanical and tribological anomalies in the TiC/amorphous hydrocarbon nanocomposite coating system. 2001 , 398-399, 210-216	44
1295	Hardness and elastic modulus of carbon-germanium alloys. 2001 , 398-399, 275-278	9
1294	On the measurement of stress-strain curves by spherical indentation. 2001 , 398-399, 331-335	190
1293	Influence of substrate treatment on the tribological properties of DLC coatings. 2001 , 10, 2232-2237	38
1292	Superhard and superelastic films of polymeric C60. 2001 , 10, 2044-2048	17
1291	Mechanical Properties of Phase-change Recording Media: GeSbTe Films. 2001 , 40, 3320-3325	21
1290	Interferometry of actuated microcantilevers to determine material properties and test structure nonidealities in MEMS. 2001 , 10, 336-346	101
1289	Hard carbon nanocomposite films with low stress. 2001 , 10, 1082-1087	86
1288	Study of the mechanical properties of tetrahedral amorphous carbon films by nanoindentation and nanowear measurements. 2001 , 10, 145-152	56
1287	Amorphous SixC1-x films: an example of materials presenting low indentation hardness and high wear resistance. 2001 , 10, 1053-1057	19
1286	Mechanical properties of a-C:H multilayer films. 2001 , 10, 1833-1838	22
1285	Epitaxial NaCl structure $\sqrt{3}\sqrt{3}$ -Ta _x N _x (001): Electronic transport properties, elastic modulus, and hardness versus N/Ta ratio. 2001 , 90, 2879-2885	80
1284	Fracture resistance enhancement of diamond-like carbon/nitrogenated diamond-like carbon multilayer deposited by electron cyclotron resonance microwave plasma chemical vapor deposition. 2001 , 19, 130-135	9
1283	EVALUATION OF THE MECHANICAL PROPERTIES OF CERAMICS AND THIN HARD CERAMIC COATINGS USING NANOINDENTATION. 2001 , 17, 275-298	6
1282	Unique Structural and Mechanical Properties of Ultrathin Au Films Grown on Dendrimer-Mediated Substrates. 2001 , 13, 3669-3677	32
1281	On the identification of elastoviscoplastic constitutive laws from indentation tests. 2001 , 9, 19-44	32

1280	Dynamic Contacts on Viscoelastic Films: Work of Adhesion. 2001 , 17, 2973-2981		42
1279	Study of Elastic Modulus and Yield Strength of Polymer Thin Films Using Atomic Force Microscopy. 2001 , 17, 3286-3291		129
1278	Ageing human bone: factors affecting its biomechanical properties and the role of collagen. 2001 , 15, 187-229		112
1277	Self-Limiting Hardness Changes in Laser Peened 6061-T6 Aluminium. 2001 , 17, 477-482		15
1276	Bioengineering Abstracts. 2001 , 9, 65-126		1
1275	Analysis of depth-sensing indentation tests with a Knoop indenter. <i>Journal of Materials Research</i> , 2001 , 16, 1660-1667	2.5	22
1274	Simulation of sub-micron indentation tests with spherical and Berkovich indenters. <i>Journal of Materials Research</i> , 2001 , 16, 2149-2157	2.5	7
1273	Solid Solution Alloy Effects on Microstructure and Indentation Hardness in Pt-Ru Thin Films. 2001 , 673, 1		2
1272	Residual Stress and Microstructure of Electroplated Cu Film on Different Barrier Layers. 2001 , 695, 1		10
1271	The correlation of indentation size effect experiments with pyramidal and spherical indenters. 2001 , 695, 1		
1270	Mechanical Properties and Porosity of Organo-Silicate Glass (OSG) Low-k Dielectric Films. 2001 , 695, 1		2
1269	Frequency Specific Characterization of Very Soft Polymeric Materials Using Nanoindentation Testing. 2001 , 710, 1		3
1268	Microstructure And Mechanical Properties Of Skeletal Bone In Gene-Mutated <i>Stßseldtl28d</i> And Wild-Type Zebrafish (<i>Danio Rerio</i>). 2001 , 711, 1		
1267	Hardness in Ag/Ni, Au/Ni and Cu/Ni multilayers. 2001 , 81, 2021-2032		55
1266	Mechanism of improvement of TiN-coated tool life by nitrogen implantation. <i>Journal of Materials Research</i> , 2001 , 16, 3293-3303	2.5	19
1265	Nanoindentation and Microstructural Evolution Studies of DC Magnetron Sputtered Chromium Nitride Thin Films. 2001 , 672, 1		
1264	Nanoindention studies of DC sputtered Cu and Cu/Cr thin films. 2001 , 672, 1		1
1263	Synthesis and Properties of Al-Based Amorphous and Microcrystalline Thin Films. 2001 , 672, 1		

1262	An Experimental and Computational Study of the Elastic-Plastic Transition in Thin Films. 2001 , 673, 1	5
1261	Lack of hardening effect in TiN/NbN multilayers. 2001 , 673, 1	4
1260	AFM-Based Nanomechanical Properties and Storage of Dentin and Enamel. 2001 , 676, 3271	1
1259	Effects of Nanostructure on Bulk Mechanical Properties of Nacre - 3D Finite Element Modeling of the Segmented/Layered Biocomposite. 2001 , 677, 781	0
1258	Assessment of New Relation for the Elastic Compliance of a Film-Substrate System. 2001 , 695, 1	13
1257	Adaptive Protocol for Robust Estimates of Coatings Properties by Nanoindentation. 2001 , 695, 1	1
1256	Thin Film Characterization Using the Point-Deflection Method. 2001 , 695, 1	
1255	Nanoindentation and Magneto-Optical Study of Oxidized Co Thin Films. 2001 , 695, 1	
1254	Stress Hysteresis and Mechanical Characterization of Plasma-Enhanced Chemical Vapor Deposited Dielectrics. 2001 , 695, 1	3
1253	Accurate Determination of the Elastic properties of Near Surface Regions and Thin Films Using Nanoindentation and Acoustic Microscopy. 2001 , 695, 1	
1252	Effect of Microstructure on Microhardness of AlN Thin Films. 2001 , 695, 1	
1251	Spherical Indentation Testing of Polymers at Various Temperatures. 2001 , 695, 1	1
1250	Nanoindentation and Wear Behavior of Nickel-Titanium Alloys and Thin Films. 2001 , 697, 291	3
1249	Spectroscopic Ellipsometry as a Potential In-Line Optical Metrology Tool For Relative Porosity Measurements of Low- K Dielectric Films. 2001 , 697, 471	1
1248	Measurement of Mechanical Properties of Single and Multilayered Nitride thin Films Prepared by Cathodic Arc Deposition. 2001 , 697, 541	1
1247	Nanostructured Ultrathin Films of Silicate Clay and Polyelectrolytes: Deposition Parameters and Mechanical Properties by Nanoindentation. 2001 , 697, 8161	
1246	Investigation of Structural and Mechanical Properties of Laser Deposited Microlaminate Hard Coatings. 2001 , 697, 871	1
1245	Plasma deposition of amorphous carbon films from methane atmospheres highly diluted in argon. 2001 , 697, 921	

1244	Assessing Structure-Property Relations of Diseased Tissues Using Nanoindentation and FTIR. 2001 , 711, 1	2
1243	A New Tool for Evaluation of Intrinsic Mechanical Properties of Multilayered Coatings. 2001 , 17, 465-471	4
1242	Elastic Modulus of Pulse Electrode Surface Deposited Composite Boride Coating Using Nanoindentation. 2001 , 17, 495-497	4
1241	Experimental Techniques for Bone Mechanics. 2001 , 7-1-7-35	9
1240	Case study: a safety and usability evaluation of two different carphone designs. 2001 , 26, 12	1
1239	Hardness. 2001 ,	
1238	Deformation Mechanisms of the Zr ₄₀ Ti ₁₄ Ni ₁₀ Cu ₁₂ Be ₂₄ Bulk Metallic Glass. 2001 , 42, 642-649	328
1237	The friction and adhesion of elastomers. 2001 , 39, 661-672	5
1236	Determination of Poisson's Ratio by Spherical Indentation Using Neural NetworksPart I: Theory. 2001 , 68, 218-223	24
1235	Nanoindentation on nominally pure and doped MgO crystals. 2001 , 156, 39-43	
1234	Mechanical and dielectric characteristics of quartz doped with some anion impurities. 2001 , 156, 45-50	
1233	A nano-indentation study of the mechanical properties of thin surface layers affected by manufacturing processes. 2001 , 39, 895-903	2
1232	Characterization of MEMS mechanical properties using nanoscale techniques. 2001 , 4558, 287	
1231	Nanoscale Mechanical Characterization of the Effect of Thermal Aging on Titanium/PETI-5 Adhesive Interface Properties. 2001 , 76, 93-121	1
1230	5. High-pressure surface science. 2001 , 38, 355-445	8
1229	Graded microstructure and mechanical properties of human crown dentin. 2001 , 69, 147-57	223
1228	Nanoindentation as a strength probe—study on the hardness dependence of indent size for fine-grained and coarse-grained ferritic steel. 2001 , 32, 761-768	4
1227	Hardness-depth profiling on nanometer scale. 2001 , 32, 1201-1209	13

1226	Nanoindentation as a strength probe— study on the hardness dependence of indent size for fine-grained and coarse-grained ferritic steel. 2001 , 32, 761-768	25
1225	Evaluation of ultra-low-k dielectric materials for advanced interconnects. 2001 , 30, 284-289	47
1224	Synthesis and characterization of porous polymeric low dielectric constant films. 2001 , 30, 309-313	19
1223	Nano-indentation studies of xerogel and SiLK low-K dielectric materials. 2001 , 30, 1527-1531	20
1222	Nano-mechanical properties and topography of thermosetting acrylic powder coatings. 2001 , 73, 65-73	8
1221	Investigation of TiC thin films synthesised by low energy IBAD from electron evaporation of TiC powder. 2001 , 172, 110-116	17
1220	Dendrimer-mediated growth of very flat ultrathin Au films. 2001 , 175-176, 134-139	19
1219	Nanoindentation studies of (111) GaAs/InP epilayers. 2001 , 180, 119-125	6
1218	Nitrogen and carbon expanded austenite produced by P13. 2001 , 136, 181-187	164
1217	On the application of the work-of-indentation approach to depth-sensing indentation experiments in coated systems. 2001 , 137, 217-224	93
1216	The use of the indentation loading curve to detect fracture of coatings. 2001 , 137, 72-76	53
1215	Hardness measurements on thin IBAD CNx films —a comparative study. 2001 , 137, 197-204	16
1214	Mechanical properties of ion-implanted polycarbonate. 2001 , 138, 242-249	12
1213	The hardness, adhesion and wear resistance of coatings developed for cobalt-base alloys. 2001 , 139, 161-182	13
1212	Mechanical and tribological aspects on a-C films deposited by lamp assisted chemical vapour deposition. 2001 , 138, 264-268	10
1211	Indentation behavior and Young's modulus evaluation in electroless Ni modified CrN coating on mild steel. 2001 , 139, 6-13	18
1210	The smoothness, hardness and stress in titanium nitride following argon gas cluster ion beam treatment. 2001 , 140, 99-108	9
1209	Nanoindentation studies on amorphous carbon nitride thin films prepared by shielded arc ion plating. 2001 , 142-144, 719-723	9

1208	Microstructure, mechanical properties, and wetting behavior of SiCN thin films grown by reactive magnetron sputtering. 2001 , 141, 145-155	83
1207	Elastic properties of (Ti,Al,Si)N nanocomposite films. 2001 , 142-144, 110-116	41
1206	Stress analyses and in-situ fracture observation of wear protective multilayer coatings in contact loading. 2001 , 148, 38-45	20
1205	Investigation of creep behaviour under load during indentation experiments and its influence on hardness and modulus results. 2001 , 148, 191-198	225
1204	Tribological properties of adaptive nanocomposite coatings made of yttria stabilized zirconia and gold. 2001 , 146-147, 351-356	76
1203	Mechanical properties of thin surface layers affected by material removal processes. 2001 , 146-147, 384-390	9
1202	A comprehensive nitriding study by low energy ion beam implantation on stainless steel. 2001 , 146-147, 405-409	17
1201	Mechanical properties of superhard nanocomposites. 2001 , 146-147, 175-182	135
1200	Microhardness studies on functionally graded polymer composites. 2001 , 61, 557-563	120
1199	The resistance of silicon carbide to static and impact local loading. 2001 , 26, 533-542	10
1198	Properties of carbon nitride films deposited with and without electron cyclotron resonance plasma assistance. 2001 , 382, 4-12	4
1197	Influence of oxygen on the morphological and structural properties of Ti thin films grown by ion beam-assisted deposition. 2001 , 384, 69-75	10
1196	Nanoindentation load-displacement behavior of pure face centered cubic metal thin films on a hard substrate. 2001 , 385, 198-204	53
1195	Microstructure, stress and mechanical properties of arc-evaporated CrCN coatings. 2001 , 385, 190-197	97
1194	Correlation between hardness and structure of carbon-nitride thin films obtained by reactive pulsed laser deposition. 2001 , 388, 93-100	16
1193	Nanostructure and hardness of titanium aluminum nitride prepared by plasma enhanced chemical vapor deposition. 2001 , 391, 101-108	43
1192	Effect of silicon nitride capping layer on via electromigration and failure criterion methodology in multilevel interconnection. 2001 , 397, 186-193	7
1191	Low stress TiB ₂ coatings with improved tribological properties. 2001 , 401, 179-186	94

1190	Depth-sensitive analysis of a degraded tin oxide electrode surface in a plasma device application. 2001 , 401, 196-202	4
1189	Growth and structural characterization of yttria-stabilized zirconia-gold nanocomposite films with improved toughness. 2001 , 401, 187-195	93
1188	Residual stress and thermal expansion behavior of TaOxNy films by the micro-cantilever method. 2001 , 401, 291-297	13
1187	Experimental measurement of polyethylene chain modulus by scanning force microscopy. 2001 , 42, 5901-5907	18
1186	Ion-irradiation-induced hardening in Inconel 718. 2001 , 296, 203-209	65
1185	Elastic and plastic behavior of plasma-sprayed hydroxyapatite coatings on a Ti-6Al-4V substrate. 2001 , 22, 1357-63	44
1184	A preliminary comparison of the mechanical properties of chemically cured and ultrasonically cured glass ionomer cements, using nano-indentation techniques. 2001 , 22, 1401-6	62
1183	Indentation of a soft metal film on a hard substrate: strain gradient hardening effects. 2001 , 49, 1997-2014	149
1182	Nanoindentation and nanotribological behavior of Fe-N/Ti-N multilayers with different thickness of Fe-N layers. 2001 , 247, 15-23	11
1181	Nanoindentation and microtribological behavior of Fe _N /Ti _N multilayers with different thickness of Ti _N layers. 2001 , 251, 1144-1149	8
1180	Time-dependent mechanical properties and tribological behavior of magnetic tapes. 2001 , 251, 1150-1158	14
1179	Tribological properties of ion-implanted polyphenylene oxide (PPO). 2001 , 251, 1504-1510	9
1178	Hardness and modulus of the lamellar microstructure in PST-TiAl studied by nanoindentations and AFM. 2001 , 49, 903-911	94
1177	Plastic strain and strain gradients at very small indentation depths. 2001 , 49, 1021-1034	148
1176	Microstructural characterization of yttria-stabilized zirconia plasma-sprayed deposits using multiple small-angle neutron scattering. 2001 , 49, 1661-1675	106
1175	The effect of heat treatment on the stiffness of zirconia top coats in plasma-sprayed TBCs. 2001 , 49, 1565-1575	293
1174	Comparison of mechanical properties of Ni ₃ Al thin films in disordered FCC and ordered L1 ₂ phases. 2001 , 49, 2853-2861	23
1173	Instrumented micro-indentation of NiTi shape-memory alloys. 2001 , 49, 3205-3217	130

1172	An analysis of load penetration curves from instrumented indentation. 2001 , 49, 3539-3551	133
1171	Computational modeling of the forward and reverse problems in instrumented sharp indentation. 2001 , 49, 3899-3918	1049
1170	Plasticity of GaAs compliant substructures. 2001 , 309-310, 478-482	1
1169	Nanoindentation hardness of submicrometer alumina ceramics. 2001 , 307, 172-181	103
1168	Microplasticity characteristics obtained through nano-indentation measurements: application to surface hardened steels. 2001 , 303, 110-119	21
1167	A study of microstructure and hardness of bulk copper sample obtained by consolidating nanocrystalline powders using plasma pressure compaction. 2001 , 311, 22-27	32
1166	Mechanical characteristics of mixed soda-lime silicate glasses. 2001 , 319-321, 702-705	7
1165	Soft films on hard substrates [nanoindentation of tungsten films on sapphire substrates. 2001 , 319-321, 898-901	81
1164	Processing, microstructure and mechanical properties of yttria stabilized zirconia reinforced hydroxyapatite coatings. 2001 , 316, 46-51	34
1163	Model and experiments on strain gradient hardening in metallic glass. 2001 , 318, 313-319	40
1162	Microstructure and mechanical properties at TiCp/Ni-alloy interfaces in laser-synthesized coatings. 2001 , 318, 15-21	35
1161	3D finite element modeling of mechanical response in nacre-based hybrid nanocomposites. 2001 , 11, 397-404	106
1160	Microstructure and properties of Fe _N /Ti _N magnetic multilayers. 2001 , 32, 66-69	4
1159	Nanoindentation measurement of carbon nitride thin films. 2001 , 32, 74-78	5
1158	Adhesion, lubrication and wear on the atomic scale. 2001 , 31, 619-626	42
1157	Correlations between osteocalcin content, degree of mineralization, and mechanical properties of C. carpio rib bone. 2001 , 54, 547-53	35
1156	Nanoindentation study of interfaces between calcium phosphate and bone in an animal spinal fusion model. 2001 , 54, 554-9	17
1155	Effects of anisotropy on elastic moduli measured by nanoindentation in human tibial cortical bone. 2001 , 57, 108-12	111

1154	On the Impact of Light on Nanoindentations in ZnSe. 2001 , 187, 415-426	14
1153	Neue Möglichkeiten zur Charakterisierung dünner Schichten mit Indentermethoden. 2001 , 32, 621-627	2
1152	Nano-mechano-electrochemistry of passive metal surfaces. 2001 , 47, 319-325	58
1151	Nanomechanical probes as new approaches to hydrogen/deformation interaction studies. 2001 , 68, 619-646	86
1150	Determination by nanoindentation of elastic modulus and hardness of pure constituents of Portland cement clinker. 2001 , 31, 555-561	325
1149	Use of scaling functions to determine mechanical properties of thin coatings from microindentation tests. 2001 , 38, 335-351	96
1148	Relationship between ultrastructure and the nanoindentation properties of intramuscular herring bones. 2001 , 29, 1082-8	32
1147	Microstructure and hardness of copper powder consolidated by plasma pressure compaction. 2001 , 10, 449-455	11
1146	Evaluation of four commercially produced surface treatments. 2001 , 10, 263-269	2
1145	Low grain size TiN thin films obtained by low energy ion beam assisted deposition. 2001 , 173, 290-295	26
1144	The preparation of the Ag _x (As _{0.33} Si _{0.67}) _{100-x} amorphous films by optically-induced solid state reaction and the films properties. 2001 , 175-176, 117-122	17
1143	Mechanical properties of thin films measured by nanoindenters. 2001 , 178, 56-62	22
1142	Microstructure and nanoindentation hardness of Ti/TiN multilayered films. 2001 , 137, 225-229	58
1141	Deep segregation and hardening in Al-Mg-Zn-Cu-Cr alloy treated by plasma source oxygen ion implantation. 2001 , 138, 125-134	12
1140	Deposition rate and three-dimensional uniformity of RF plasma deposited SiO _x films. 2001 , 142-144, 849-855	54
1139	The evaluation of powder processing on microstructure and mechanical properties of hydroxyapatite (HA)/yttria stabilized zirconia (YSZ) composite coatings. 2001 , 140, 263-268	14
1138	The properties of (Ti,Al)N coatings deposited by inductively coupled plasma assisted d.c. magnetron sputtering. 2001 , 142-144, 999-1004	19
1137	Thin hard coatings stress-strain curve determination through a FEM supported evaluation of nanoindentation test results. 2001 , 142-144, 102-109	93

1136	Mechanical properties of arc-evaporated CrN coatings: Part I Nanoindentation hardness and elastic modulus. 2001 , 145, 88-93	50
1135	Film thickness effects on mechanical and tribological properties of nitrogenated diamond-like carbon films. 2001 , 145, 38-43	23
1134	Characterization of microstructure and mechanical behavior of sputter deposited Ti-containing amorphous carbon coatings. 2001 , 148, 153-162	54
1133	Characterization and hardness modelling of alternate TiN/TiCN multilayer cathodic arc PVD coating on tool steel. 2001 , 146-147, 363-370	32
1132	Multilayered chromium/chromium nitride coatings for use in pressure die-casting. 2001 , 146-147, 268-273	69
1131	Thermal stability and hardness of metastable CoTi composite alloy films. 2001 , 312, 248-252	15
1130	Mechanical properties determined by nanoindentation tests of polypropylene modified by He ⁺ particle implantation. 2001 , 315, 63-69	10
1129	The effect of cell wall microstructure on the deformation and fracture of aluminium-based foams. 2001 , 49, 1677-1686	197
1128	Mechanical and tribological properties of CN _x films deposited by reactive magnetron sputtering. 2001 , 248, 55-64	87
1127	Modification of Archard's equation by taking account of elastic/pseudoelastic properties of materials. 2001 , 251, 956-964	95
1126	An experimental study of the nano-scratch behaviour of poly(methyl methacrylate). 2001 , 251, 1579-1583	57
1125	Properties of electroless and electroplated NiB and its application in microgalvanics. 2001 , 47, 161-169	95
1124	Sacrificial bonds heal bone. 2001 , 414, 699	124
1123	Materials science. Rapid alloy assessment. 2001 , 410, 643-4	23
1122	Acoustics. In a fly's ear. 2001 , 410, 644-5	8
1121	Nanoindentation of a Polymer-Derived Amorphous Silicon Carbonitride Ceramic. 2001 , 84, 1164-1166	41
1120	Mesoscopic Nonlinear Elastic Modulus of Thermal Barrier Coatings Determined by Cylindrical Punch Indentation. 2001 , 84, 2737-2739	21
1119	Correlation between distribution of nitrogen atoms implanted at high energy and high dose and nanohardness measurements into 316L stainless steel. 2001 , 178, 319-322	11

1118	Giant segregation effect and surface mechanical modification of aluminum alloys by oxygen plasma source ion implantation. 2001 , 175-177, 458-462	7
1117	The effects of Ar post-bombardment and heat treatment on hardness of N implanted iron. 2001 , 175-177, 511-515	1
1116	Ion beam mixing of Ti/TiN multilayers for tribological and corrosion protection. 2001 , 175-177, 630-636	9
1115	Characterization of mechanical properties and microstructure of high-energy dual ion implanted metals. 2001 , 175-177, 647-651	14
1114	Mechanical properties of He irradiated and annealed AZ-1350 JTM films. 2001 , 175-177, 668-672	4
1113	Nanoindentation of carbon materials. 2001 , 180, 117-124	23
1112	Depth sensing hardness in sapphire and in sintered sub- μ m alumina. 2001 , 19, 237-243	12
1111	Mechanical properties of human dental enamel on the nanometre scale. 2001 , 46, 173-83	402
1110	The microstructure and hardness of molybdenum powders consolidated by plasma pressure compaction. 2001 , 114, 136-144	33
1109	Mechanical properties of agglomerates. 2001 , 117, 98-112	97
1108	Depth dependence of hardness in copper single crystals measured by nanoindentation. 2001 , 44, 237-241	141
1107	Effect of indentation size and microhardness calculation on abrasive wear severity. 2001 , 44, 659-663	4
1106	Nanohardness measurement of high-purity Fe α martensite. 2001 , 45, 889-894	107
1105	Correlation of cavitation erosion resistance with indentation-derived properties for a NiTi alloy. 2001 , 45, 1083-1089	64
1104	Analysis of mechanical property distribution in multiphase ultra-fine-grained steels by nanoindentation. 2001 , 45, 1401-1406	40
1103	Nanotribology of thin films in a lithium niobate optical waveguide modulator LiNbO ₃ -Ti(20 nm)-Pt(10 nm)-Au(100 nm)-Au(10 nm) using depth-sensing nanoindentation and scratching techniques. 2001 , 40, 1709	4
1102	A note on a common mistake in the analysis of nanoindentation data. <i>Journal of Materials Research</i> , 2001 , 16, 336-339	2.5 41
1101	Growth, structure, and mechanical properties of transition metal carbide superlattices. <i>Journal of Materials Research</i> , 2001 , 16, 1301-1310	2.5 14

1100	Biomimetic model of a sponge-spicular optical fiber-mechanical properties and structure. <i>Journal of Materials Research</i> , 2001 , 16, 1420-1428	2.5	97
1099	Determination of the elastic properties of glasses and polymers exploiting the resonant characteristic of depth-sensing indentation tests. <i>Journal of Materials Research</i> , 2001 , 16, 1776-1783	2.5	11
1098	Methods of correction for analysis of depth-sensing indentation test data for spherical indenters. <i>Journal of Materials Research</i> , 2001 , 16, 2244-2250	2.5	5
1097	Substrate effects on indentation plastic zone development in thin soft films. <i>Journal of Materials Research</i> , 2001 , 16, 3150-3157	2.5	82
1096	Adhesion of polymer-inorganic interfaces by nanoindentation. <i>Journal of Materials Research</i> , 2001 , 16, 3378-3388	2.5	26
1095	Porous Methylsilsesquioxane for Low-k Dielectric Applications. 2001 , 4, F25		55
1094	Nanoindentation Study of PVD WC/C Coatings Supported by Cross-Sectional Electron Microscopy Observations. 2001 , 17, 105-111		10
1093	Interfacial microstructure and mechanical behaviour in laser clad TiCp/Ni alloy coatings. 2001 , 17, 597-600		1
1092	Indentation of elastically anisotropic half-spaces by cones and parabolae of revolution. 2001 , 81, 447-466		122
1091	Effect of compaction pressure and powder grade on microstructure and hardness of steam oxidised sintered iron. 2001 , 44, 53-61		23
1090	A Numerical Three-Dimensional Model for the Contact of Layered Elastic/Plastic Solids With Rough Surfaces by a Variational Principle. 2001 , 123, 330-342		43
1089	Nanomechanical and Nanotribological Properties of Carbon, Chromium, and Titanium Carbide Ultrathin Films. 2001 , 123, 717-724		19
1088	Diamond-like carbon coatings in rolling contacts. 2001 , 215, 545-561		16
1087	Direct measurement of plowing friction and wear of a polymer thin film using the atomic force microscope. <i>Journal of Materials Research</i> , 2001 , 16, 1487-1492	2.5	35
1086	Do residual nano indentations in metals and ceramics relax with time?. 2001 , 34, L70-L78		18
1085	STABILIZED sp ² /sp ³ CARBON AND METAL-CARBON COMPOSITES OF ATOMIC SCALE AS INTERFACE AND SURFACE-CONTROLLING DIELECTRIC AND CONDUCTING MATERIALS. 2001 , 447-508		2
1084	Small correction required when applying the Hertzian contact model to instrumented indentation data. <i>Journal of Materials Research</i> , 2001 , 16, 1280-1286	2.5	33
1083	Thin-film fracture during nanoindentation of a titanium oxide film-titanium system. <i>Journal of Materials Research</i> , 2001 , 16, 2634-2643	2.5	39

1082	Characterization of mechanical properties of tungsten carbide/carbon multilayers: Cross-sectional electron microscopy and nanoindentation observations. <i>Journal of Materials Research</i> , 2001 , 16, 2213-2222	2.5	12
1081	Hardness-Depth profile of a carbon-implanted Ti-6Al-4V alloy and its relation to composition and microstructure. <i>Journal of Materials Research</i> , 2001 , 16, 2321-2335	2.5	4
1080	Study of analysis methods of depth-sensing indentation test data for spherical indenters. <i>Journal of Materials Research</i> , 2001 , 16, 1579-1584	2.5	17
1079	Surface constrained plasticity: Oxide rupture and the yield point process. 2001 , 81, 2033-2058		91
1078	Mechanical properties of fibre Bragg gratings. 2001 , 124-149		1
1077	Atomistic modelling of nanoindentation in iron and silver. 2001 , 12, 372-383		73
1076	Mar and scratch resistance of automotive clearcoats: development of new testing methods to improve coatings. 2001 , 39, 883-893		2
1075	Deformation under nanoindents in Si, Ge, and GaAs examined through transmission electron microscopy. <i>Journal of Materials Research</i> , 2001 , 16, 3347-3350	2.5	61
1074	Changes in Surface Mechanical Properties Through Electrochemical Modifications. 2001 , 697, 241		
1073	Chemical vapor deposition of an aluminum nitride-diamond composite in a triple torch plasma reactor. <i>Journal of Materials Research</i> , 2001 , 16, 469-477	2.5	5
1072	Characterization and modeling of specific strain gradient modulus of epoxy. <i>Journal of Materials Research</i> , 2001 , 16, 558-563	2.5	6
1071	Simplified method for analyzing nanoindentation data and evaluating performance of nanoindentation instruments. <i>Journal of Materials Research</i> , 2001 , 16, 3084-3096	2.5	78
1070	Controlled preparation and characterization of multilayer sol-gel zirconia dip-coatings. <i>Journal of Materials Research</i> , 2001 , 16, 2391-2398	2.5	26
1069	Numerical study on the measurement of thin film mechanical properties by means of nanoindentation. <i>Journal of Materials Research</i> , 2001 , 16, 2974-2982	2.5	276
1068	Effect of ion implant dose on the mechanical properties of polyethersulfone films. <i>Journal of Materials Research</i> , 2001 , 16, 3628-3635	2.5	6
1067	A combinatorial approach for efficient mapping of phase diagrams and properties. <i>Journal of Materials Research</i> , 2001 , 16, 1565-1578	2.5	94
1066	Effect of annealing on microstructure, residual stress, and hardness of Al ₃ Ti multilayered films. <i>Journal of Materials Research</i> , 2001 , 16, 2064-2076	2.5	7
1065	Microstructure, magnetic and nanomechanical properties of FeTaN films prepared by co-sputtering. 2001 , 34, 41-47		6

1064	Processing and characterization of ultralow-dielectric constant organosilicate. 2001 , 19, 2155		13
1063	Influence of nitrogen on the structure and nanomechanical properties of pulsed laser deposited tetrahedral amorphous carbon. 2001 , 13, 2971-2987		39
1062	Processing vapour-deposited polyimide. 2001 , 34, 3011-3018		23
1061	Relationship between the microstructure and nanoindentation hardness of thermally evaporated and magnetron-sputtered electrochromic tungsten oxide films. <i>Journal of Materials Research</i> , 2001 , 16, 1541-1548	2.5	10
1060	Elastic Constant Determinations of SiC/NiP Composite Coating by Surface Acoustic Wave and Nano-indentation. 2001 , 40, 3442-3447		1
1059	Deposition and properties of tetrahedral amorphous carbon films prepared on magnetic hard disks. 2001 , 19, 1606-1610		18
1058	Interface engineering and graded films: Structure and characterization. 2001 , 19, 1404-1414		52
1057	Structure, stability, and mechanical properties of epitaxial W/NbN superlattices. 2001 , 19, 952-957		34
1056	Anisotropies in magnetron sputtered carbon nitride thin films. 2001 , 78, 2703-2705		11
1055	Thermal stability of laser-produced iron nitrides. 2001 , 89, 4619-4624		22
1054	Creep behavior and elastic properties of annealed cold-drawn poly(ethylene terephthalate): The role of the smectic structure as a precursor of crystallization. 2001 , 90, 6006-6010		27
1053	Tribological and mechanical investigation of SiO ₂ and Si ₃ N ₄ coatings on fused silica and borosilicate glass. 2001 , 8, 57-72		3
1052	Effect of chamber pressure and atmosphere on the microstructure and nanomechanical properties of amorphous carbon films prepared by pulsed laser deposition. 2001 , 19, 311-316		14
1051	Mechanical and etching properties of dual ion beam deposited hydrogen-free silicon nitride films. 2001 , 19, 2542-2548		5
1050	Derivation of plastic stress-strain relationship from ball indentations: Examination of strain definition and pileup effect. <i>Journal of Materials Research</i> , 2001 , 16, 3170-3178	2.5	192
1049	Measuring nanomechanical properties of a dynamic contact using an indenter probe and quartz crystal microbalance. 2001 , 90, 6391-6396		64
1048	Alternative technique for analyzing instrumented indentation data. <i>Journal of Materials Research</i> , 2001 , 16, 3202-3206	2.5	54
1047	Friction and wear characteristics of ceramic nanocomposite coatings: Titanium carbide/amorphous hydrocarbon. 2001 , 79, 329-331		47

1046	Multilayered (Ti, Al) ceramic coating for high-speed machining applications. 2001 , 19, 1919-1922		20
1045	Influence of substrate bias on the structure and properties of (Ti, Al)N films deposited by filtered cathodic vacuum arc. 2001 , 19, 736-742		27
1044	Structure control of pulsed laser deposited ZrO ₂ /Y ₂ O ₃ films. 2001 , 19, 1320-1324		12
1043	Measurement of residual stress by load and depth sensing indentation with spherical indenters. <i>Journal of Materials Research</i> , 2001 , 16, 2091-2102	2.5	225
1042	Role of hydrogen for the elastic properties of alumina thin films. 2002 , 80, 1144-1146		66
1041	Effect of hydrogen and oxygen on stainless steel nitriding. 2002 , 92, 764-770		32
1040	Epitaxial growth of metastable ϵ -TaN layers on MgO(001) using low-energy, high-flux ion irradiation during ultrahigh vacuum reactive magnetron sputtering. 2002 , 20, 2007		33
1039	Effect of neutron irradiation on hardening in MgO crystals. 2002 , 66,		6
1038	Growth of single-crystal CrN on MgO(001): Effects of low-energy ion-irradiation on surface morphological evolution and physical properties. 2002 , 91, 3589-3597		111
1037	Indentation load-displacement curve, plastic deformation, and energy. <i>Journal of Materials Research</i> , 2002 , 17, 502-511	2.5	68
1036	Sharp tip geometry and its effect on hardness in nanoindentation experiments. 2002 , 91, 9689		18
1035	Nanomechanical properties and morphology of thick polyurethane films under contact pressure and stretching. 2002 , 91, 375		23
1034	High abrasion resistance with sparse mineralization: copper biomineral in worm jaws. 2002 , 298, 389-92		184
1033	Surface mechanical measurements at the nanoscale. 2002 , 193-220		
1032	Formation of carbon nanotubes by plasma enhanced chemical vapor deposition: Role of nitrogen and catalyst layer thickness. 2002 , 92, 6188-6194		47
1031	Mechanical and chemical characteristics of mineral produced by basic fibroblast growth factor-treated bone marrow stromal cells in vitro. 2002 , 8, 931-9		12
1030	Effect of adsorption on nanoindentation test. 2002 , 80, 959-961		13
1029	Plasma-enhanced chemical-vapor deposition of titanium aluminum carbonitride/amorphous-carbon nanocomposite thin films. 2002 , 20, 87-92		28

1028	. 2002 , 38, 2231-2233		6
1027	Synthesis and mechanical properties of boron suboxide thin films. 2002 , 20, 335-337		22
1026	Towards the understanding of mechanical properties of super- and ultrahard nanocomposites. 2002 , 20, 650		221
1025	Elasto-plastic deformation of silica glass and glassy carbons with different indenters. 2002 , 82, 2199-2205		10
1024	Synthesis of Superhard and Elastic Carbon Nitride Films by Filtered Cathodic Vacuum arc Combined with Radio Frequency Ion Beam Source. <i>Journal of Materials Research</i> , 2002 , 17, 521-524	2.5	22
1023	Fracture Toughness and Adhesion Energy of Sol-gel Coatings on Glass. <i>Journal of Materials Research</i> , 2002 , 17, 224-233	2.5	76
1022	Fundamental relations used in nanoindentation: Critical examination based on experimental measurements. <i>Journal of Materials Research</i> , 2002 , 17, 2227-2234	2.5	55
1021	Structural and mechanical properties of TiC/Ti and TiC/B4C multilayers deposited by pulsed laser deposition. <i>Journal of Materials Research</i> , 2002 , 17, 1390-1398	2.5	9
1020	Finite element simulation of spherical indentation in the elastic-plastic transition. 2002 , 93, 857-861		13
1019	Elastic recovery measurements performed by atomic force microscopy and standard nanoindentation on a Co(10.1) monocrystal. <i>Journal of Materials Research</i> , 2002 , 17, 1258-1265	2.5	5
1018	DETERMINATION OF LOCAL MECHANICAL PROPERTIES OF β AND β PP BY MEANS OF MICROHARDNESS MEASUREMENTS. 2002 , 41, 851-861		8
1017	Nanostructured diamond film deposition on curved surfaces of metallic temporomandibular joint implant. 2002 , 35, L105-L107		22
1016	Determination of the mechanical properties of metallic thin films and substrates from indentation tests. 2002 , 82, 2013-2029		41
1015	Surface Structural Characterization and Mechanical Testing by Nanoindentation Measurements of Hybrid Polymer/clay Nanostructured Multilayer Films. <i>Journal of Materials Research</i> , 2002 , 17, 1622-1633	2.5	26
1014	Extracting hardness and Young's modulus from load-displacement curves. 2002 , 93, 870-874		23
1013	Viscoelastic effects during unloading in depth-sensing indentation. <i>Journal of Materials Research</i> , 2002 , 17, 2604-2610	2.5	177
1012	Effects of Creep and Thermal Drift on Modulus Measurement Using Depth-sensing Indentation. <i>Journal of Materials Research</i> , 2002 , 17, 660-668	2.5	278
1011	Evaluation of the matrix strength of Fe-0.4 wt% C tempered martensite using nanoindentation techniques. 2002 , 82, 1903-1910		6

1010	A numerical and experimental study of the indentation mechanics of plasticine. 2002 , 37, 141-150		14
1009	Imaging and Measurement of Local Mechanical Properties of Alkali Halide Single Crystals by Atomic Force Microscopy. 2002 , 13, 135-147		
1008	Nanoindentation studies of brittle thin films on a titanium alloy substrate. <i>Journal of Materials Research</i> , 2002 , 17, 861-870	2.5	4
1007	Elastoplastic load-depth hysteresis in pyramidal indentation. <i>Journal of Materials Research</i> , 2002 , 17, 2161-2173	2.5	64
1006	Micro and Macro Deformation of Single Crystal NiTi. 2002 , 124, 238-245		51
1005	Nanoindentation measurement of hardness and modulus anisotropy in Ni ₃ Al single crystals. <i>Journal of Materials Research</i> , 2002 , 17, 2314-2320	2.5	27
1004	The Influence of Indenter Tip Radius on the Micro-Indentation Hardness. 2002 , 124, 371-379		84
1003	Thick Physical Vapour Deposited TiB ₂ Coatings. 2002 , 18, 219-223		19
1002	Evaluation of the adhesion of TiN films using nanoindentation and scratch testing. 2002 , 82, 2191-2197		5
1001	A new analysis of nanoindentation load-displacement curves. 2002 , 82, 2223-2229		11
1000	Measurement of mechanical properties of multilayer coatings by nanoindentation. 2002 , 18, 827-830		1
999	Determination of Nanomechanical Properties of Polyester Matrix Composite Using Nanoindentation. 2002 , 241		
998	Synthesis and characterisation of carbon nitride thin films. 2002 , 47, 153-167		20
997	Microstructure and properties of molybdenum-principle-copper composite metal samples consolidated by plasma pressure compaction. 2002 , 45, 255-260		7
996	Surface characteristics and wear performance of laser surface engineered iron oxide coatings on cast aluminium alloy. 2002 , 18, 1036-1040		5
995	Development and application of a combined atomic force microscopy-nanoindentation system with a silicon tip and a diamond indenter. 2002 , 82, 2149-2160		12
994	Preliminary study of the mechanical and tribological properties of diamond-like carbon films prepared on steel substrates by filtered cathodic vacuum arc deposition. 2002 , 265-269		
993	Characterization of methyl-doped silicon oxide film deposited using Flowfill [®] chemical vapor deposition technology. 2002 , 20, 828		14

992	Ion implantation effects on the structure and nanomechanical properties of vapor deposited cubic boron nitride films. 2002 , 20, 936		5
991	Influence of the twist angle on the plasticity of the GaAs compliant substrates realized by wafer bonding. 2002 , 14, 12967-12974		1
990	Determination of the material properties of multilayered thin films using the elastic wave propagation approach. 2002 , 12, 723-729		2
989	Mechanical strengthening in nanometric CrN/Cr multilayers measured by nanoindentation. 2002 , 35, 1880-1883		14
988	Combinatorial Materials Science: What's New Since Edison?. 2002 , 27, 295-300		71
987	Continuous FEM simulation of the nanoindentation. 2002 , 93, 862-869		31
986	Effects of the sample preparation temperature on the nanostructure of compression moulded ultrahigh molecular weight polyethylene. 2002 , 216, 123-33		11
985	Superhard coatings in C-B-N systems. 2002 , 115-190		
984	Numerical Study of the Influence of Imperfection of the Tip of a Vickers Indenter on Ultramicrohardness Test Results. 2002 , 230-232, 525-528		3
983	Theoretical Methods for Nanoindentation. 2002 , 3,		
982	Chemically Bonded Porogens in Methylsilsesquioxane. 2002 , 149, F171		23
981	The mechanics of coatings. 2002 , 303-350		1
980	Depth-sensing indentation at macroscopic dimensions. <i>Journal of Materials Research</i> , 2002 , 17, 2679-2690	40	40
979	Interpretations of Indentation Size Effects. 2002 , 69, 433-442		219
978	Nanomechanical properties of energetically treated polyethylene surfaces. <i>Journal of Materials Research</i> , 2002 , 17, 423-430	2.5	20
977	Nanostructure and mechanical properties of WC-SiC thin films. <i>Journal of Materials Research</i> , 2002 , 17, 3163-3167	2.5	15
976	Microstructure and mechanical properties of TiSiN coatings. <i>Journal of Materials Research</i> , 2002 , 17, 2628-2632	2.5	53
975	Simplified Area Function for Sharp Indenter Tips in Depth-sensing Indentation. <i>Journal of Materials Research</i> , 2002 , 17, 1143-1146	2.5	69

974	A Diffusion Multiple Approach for the Accelerated Design of Structural Materials. 2002 , 27, 324-329	55
973	Photoplastic effects in nanoindentation experiments. 2002 , 82, 1865-1872	5
972	Nanoindentation of Silicate Low-K Dielectric Thin Films. 2002 , 716, 12131	12
971	?????????????????????. 2002 , 52, 282-290	15
970	Characterization of Mechanical Properties of Thin Films by Nanoindentation Technique and Finite Element Simulation. 2002 , 263	
969	P-30: Characteristics of Pin Contact Problems of TFT-LCDs with Indium Zinc Oxide Electrodes. 2002 , 33, 312	
968	Surface degradation of glass measured by nanoindentation. 2002 , 82, 2187-2190	
967	Hardness and elastic modulus from nanoindentations in nominally pure and doped MgO single crystals. 2002 , 82, 1159-1171	17
966	The Nanomechanical Effect of Dendrimer Interlayers Underneath Cu Ultrathin Films. 2002 , 734, 9511	
965	Effects of Substrate Materials on Nanoindentation Tests of AlN Thin Films. 2002 , 750, 1	1
964	Characterisation of the mechanical properties of MEMS devices using nanoscale techniques. 2002 , 741, 231	
963	Mechanical Enhancement Of Nanoporous Low-K Films As Interlayer Dielectrics By Ion Implantation. 2002 , 734, 531	1
962	Determination of the Plastic Behavior of Low Thermal Expansion Glass at the Nanometer Scale. 2002 , 738, 7261	
961	Hardness and Abrasion Resistance of Nanocrystalline Nickel Alloys Near the Hall-Petch Breakdown Regime. 2002 , 740, 1	13
960	Nanoindentation Technique at Investigating of Aluminum Oxide - CrC Nanoparticles Composite Coating. 2002 , 740, 1	
959	Characterization of Shape Memory and Superelastic Effects by Instrumented Indentation Experiments. 2002 , 750, 1	
958	Bilinear Behavior in the Indentation Size Effect: A Consequence of Strain Gradient Plasticity. 2002 , 750, 1	1
957	Evaluation of Tribological and Mechanical Properties of Nitride Thin Films Prepared by Cathodic ARC Deposition. 2002 , 750, 1	1

956	Modelling of the mechanical and tribological properties of coatings and surface treatments. 2002 , 750, 1	1
955	Micromechanical Properties of He-Implanted Ni. 2002 , 750, 1	
954	Elastic recovery and reloading of hardness impressions with a conical indenter. 2002 , 750, 1	2
953	Assessment of aluminium metallisation by nanoindentation. 2002 , 750, 1	0
952	A Simple Method of Tip Shape Calibration for Nano-Indentation Test of Thin Films. 2002 , 750, 1	
951	Incompressible pore effect on the mechanical behavior of Low-K dielectric films. 2002 , 750, 1	3
950	Strain-Induced Polymorphic Transition in Poly(Butylene Terephthalate), Its Copolymers and Blends. 2002 , 927-964	
949	Morphological and Mechanical Properties of Bone Structural Units: A Two-Case Study.. 2002 , 45, 936-943	12
948	Development of a standard on hardness and Young's modulus testing of thin coatings by nanoindentation. 2002 , 93, 879-884	2
947	On the possibility to obtain the stress-strain curve for a strain-hardening material by spherical indentation. 2002 , 15, 168	5
946	Technological intensity and inter-sectoral dynamics of inequality: evidence from the OECD, 1970-1990. 2002 , 2, 315	3
945	Quantitative elastic-property information with acoustic AFM: measurements and modeling. 2002 ,	2
944	Advanced Indentation Techniques: NDE for Flow Properties and Residual Stresses of Pipelines. 2002 , 2045	
943	Evaluation of Welding Residual Stresses in Power Plant Facilities by Using a Newly Developed Indentation Technique. 2002 , 249	
942	Indentation depth recovery in poly(methyl methacrylate) sheet on the microlength scale. 2002 , 82, 2121-2131	9
941	Elastic properties of hardness coatings using surface acoustic wave spectroscopy.	1
940	The influence of experimental parameters on hardness and Young's modulus determination using depth-sensing testing. 2002 , 82, 1911-1919	9
939	Nanoindentation of polymer-bound silica agglomerate layers. 2002 , 82, 2103-2112	1

938	Direct measurement of residual contact area and volume during the nanoindentation of coated materials as an alternative method of calculating hardness. 2002 , 82, 1883-1892	28
937	Nanoindentation of natural diamond. 2002 , 82, 1851-1856	11
936	Low-load deformation of InP under contact loading; comparison with GaAs. 2002 , 82, 1953-1961	14
935	Stress hysteresis during thermal cycling of plasma-enhanced chemical vapor deposited silicon oxide films. 2002 , 91, 1988-1992	59
934	Influence of Humidity on Surface Behavior of Pressure Sensitive Adhesives Studied Using Scanning Probe Microscopy. 2002 , 18, 8108-8115	27
933	Nanoporous Ultralow Dielectric Constant Organosilicates Templated by Triblock Copolymers. 2002 , 14, 369-374	119
932	Structural, Electrical, and Mechanical Properties Development during Curing of Low-k Hydrogen Silsesquioxane Films. 2002 , 149, F9	55
931	Hard and elastic amorphous carbon nitride thin films studied by ¹³ C nuclear magnetic resonance spectroscopy. 2002 , 66,	48
930	How hard is fullerene-like CN _x ? Some observations from the nanoindentation response of a magnetron-sputtered coating. 2002 , 82, 2133-2147	25
929	Surface Effects on Nanoindentation. <i>Journal of Materials Research</i> , 2002 , 17, 1715-1720	2.5 119
928	Studies of the interphase in epoxy/aluminum joints using nano-indentation and atomic force microscopy. 2002 , 16, 935-949	9
927	Thermally invariant dielectric coatings for micromirrors. 2002 , 41, 3285-93	14
926	Deformation structures under indentations in TiN/NbN single-crystal multilayers deposited by magnetron sputtering at different bombarding ion energies. 2002 , 82, 1983-1992	40
925	Nanoindentation and Raman spectroscopy studies of boron carbide single crystals. 2002 , 81, 3783-3785	128
924	High-temperature nanoindentation testing of fused silica and other materials. 2002 , 82, 2179-2186	118
923	A Generalized Load-Penetration Relation for Sharp Indenters and the Indentation Size Effect. 2002 , 69, 394-396	4
922	Measurement of the near-surface elastic properties of solids and thin supported films. 2002 , 13, R21-R39	83
921	Nanocomposite tribological coatings with "chameleon" surface adaptation. 2002 , 20, 1434-1444	117

920	Plasma assisted deposition of nanocrystalline BCN thin films and property characterization. 2002 , 20, 2275	9
919	Growth and structure of fullerene-like CN _x thin films produced by pulsed laser ablation of graphite in nitrogen. 2002 , 92, 4980-4988	64
918	Possible Artefacts in Measurement of Hardness and Elastic Modulus on Superhard Coatings and the Verification of the Correctness of the Data. 2002 , 750, 1	4
917	Genesis of nanostructured, magnetically tunable ceramics from the pyrolysis of cross-linked polyferrocenylsilane networks and formation of shaped macroscopic objects and micron scale patterns by micromolding inside silicon wafers. 2002 , 124, 2625-39	94
916	Structure and properties of Si incorporated tetrahedral amorphous carbon films prepared by hybrid filtered vacuum arc process. 2002 , 11, 198-203	69
915	Scaling relationships for indentation measurements. 2002 , 82, 1821-1829	128
914	Morphological and mechanical properties of carbon-nanotube-reinforced semicrystalline and amorphous polymer composites. 2002 , 81, 5123-5125	550
913	Depth dependence of nanohardness in a CuAlNi single crystal shape memory alloy. 2002 , 3,	3
912	Nanoindentation hardness and adhesion investigations of vapor deposited nanostructured diamond films. 2002 , 91, 5347-5352	46
911	Mechanical characterization of sub-micrometer thick DLC films by AFM tensile testing for surface modification in MEMS.	6
910	Templated nanoporous spin-on glass for high density interconnect applications.	
909	Mechanism for grain size softening in nanocrystalline Zn. 2002 , 81, 2241-2243	59
908	Effects of dichromate treatment on mechanical properties of passivated single crystal iron () and () surfaces. 2002 , 44, 2379-2391	21
907	Improvement of the efficiency of the silicon solar cells by silicon incorporated diamond-like carbon antireflective coatings. 2002 , 299-302, 1147-1151	13
906	STIFFNESS MEASUREMENT OF THE EXTERNAL POLYMERIC COATING ON AN OPTICAL FIBER. 2002 , 26, 51-56	13
905	Nanoindentation discriminates the elastic properties of individual human bone lamellae under dry and physiological conditions. 2002 , 30, 178-84	286
904	Mechanical properties of skeletal bone in gene-mutated <i>stßsel(dtl28d)</i> and wild-type zebrafish (<i>Danio rerio</i>) measured by atomic force microscopy-based nanoindentation. 2002 , 30, 541-6	30
903	Surface properties of a β -based titanium aluminide at elevated temperatures. 2002 , 10, 723-729	11

902	Cell-wall hardness and Young's modulus of melamine-modified spruce wood by nano-indentation. 2002 , 33, 1141-1145		101
901	Fiber/matrix interphase characterization using the dynamic interphase loading apparatus. 2002 , 33, 1345-1348		10
900	Structure and properties characterization of ceramic coatings produced on Ti6Al4V alloy by microarc oxidation in aluminate solution. 2002 , 52, 435-441		148
899	Improved nitridation efficiency and mechanical property of stainless steel surface after N2H2 plasma nitridation at low temperature. 2002 , 56, 76-79		14
898	Nanoindentation size effect in alkali-halide single crystals. 2002 , 56, 127-130		10
897	Diamond-like carbon gradient film prepared by unbalanced magnetron sputtering and plasma immersion ion implantation hybrid technique. 2002 , 57, 82-86		13
896	Microstructure and mechanical properties of boron carbide thin films. 2002 , 57, 899-903		47
895	Elastic modulus and structural evolution of diamond-like carbon films deposited by RF-PACVD. 2002 , 11, 1441-1446		10
894	Tribological properties of diamond-like carbon films prepared by mass-separated ion beam deposition. 2002 , 11, 1130-1134		19
893	Understanding nanoindentation unloading curves. <i>Journal of Materials Research</i> , 2002 , 17, 2660-2671	2.5	349
892	Nanomechanical properties of multilayered amorphous carbon structures. 2002 , 65,		35
891	Mechanical properties of amorphous anodic alumina and tantalum films using nanoindentation. 2002 , 13, 451-455		86
890	Lignification of spruce tracheid secondary cell walls related to longitudinal hardness and modulus of elasticity using nano-indentation. 2002 , 80, 1029-1033		55
889	Characterization of Polysiloxane Modified Polysilsesquioxane Films for Low Dielectric Applications: Microstructure, Electrical Properties and Mechanical Properties. 2002 , 716, 7151		2
888	Nanoindentation around Vickers microindentation in MgO (100) crystal. 2002 , 93, 875-878		3
887	Nanoindentation of Al2O3 layer - Chrome Carbide Composite. 2002 ,		1
886	Hardness depth profiling of ion-implanted polymer thin films. 2002 , 725, 1		
885	Thermal expansion coefficient of amorphous carbon nitride thin films deposited by glow discharge. 2002 , 420-421, 200-204		16

884	Comparison of three types of carbon composite coatings with exceptional load-bearing capacity and high wear resistance. 2002 , 420-421, 366-370	39
883	Heavy ion (Xe and I) irradiation effects on photoresist films. 2002 , 191, 733-738	4
882	Nanoindentation mapping of the mechanical properties of human molar tooth enamel. 2002 , 47, 281-91	515
881	Hardness Testing on Surface Layer of Material and Results Analyzing Contrastively. 2002 , 15, 82-89	0
880	A review of nanoindentation continuous stiffness measurement technique and its applications. 2002 , 48, 11-36	1054
879	Application of nanoindentation technique for structural characterisation of weld materials. 2002 , 48, 329-339	31
878	The effect of specimen roughness and indenter tip geometry on the determination accuracy of thin hard coatings stress-strain laws by nanoindentation. 2002 , 49, 149-156	136
877	The change of the properties of acrylic-based polyurethane via addition of nano-silica. 2002 , 45, 33-42	266
876	Degradation evaluation of corrosion protective coatings by electrochemical, physicochemical and physical measurements. 2002 , 45, 1-13	23
875	Hall-Petch breakdown manifested in abrasive wear resistance of nanocrystalline nickel. 2002 , 46, 735-740	275
874	A mechanistic description of combined hardening and size effects. 2002 , 47, 343-348	42
873	Nanohardness of copper in the vicinity of grain boundaries. 2002 , 47, 799-804	75
872	Nanohardness of a Ti Thin Film and Its Interface Deposited by an Electron Beam on a 304 SS Substrate. 2002 , 232, 116-120	4
871	Strength Enhancement of Compensated Strained InP/AlP Superlattice. 2002 , 189, 175-181	2
870	Modification of the Mechanical Properties of a Sol-Gel Coating Using Silica Filler Nanoparticles. 2002 , 4, 296-300	11
869	Stability of polycarbonate and polystyrene surfaces after hydrophilization with high intensity oxygen RF plasma. 2002 , 246, 214-21	58
868	Surface micromechanics of ultrahigh molecular weight polyethylene: Microindentation testing, crosslinking, and material behavior. 2002 , 61, 270-81	24
867	Nano- and microscale mechanical characterization using instrumented indentation. 2002 , 54, 45-48	5

866	Artificial neural network and finite element modeling of nanoindentation tests. 2002 , 33, 1939-1947	33
865	Synthesis and nanoindentation study of high-velocity oxygen fuel thermal-sprayed nanocrystalline and near-nanocrystalline Ni coatings. 2002 , 33, 647-655	11
864	Formation of white layers in steels by machining and their characteristics. 2002 , 33, 1245-1254	108
863	In-situ transmission electron microscopy study of the nanoindentation behavior of Al. 2002 , 31, 958-964	45
862	Mechanical and tribological properties of interlayer films for the damascene-Cu chemical-mechanical planarization process. 2002 , 31, 1016-1021	10
861	Nanoindentation and orientation imaging: Probing small volumes and thin films for mechanical properties. 2002 , 31, 66-70	8
860	Effects of tungsten addition on tensile properties of a refractory Nb ₁₈ Si ₁₀ Ti ₁₀ Mo _x W (x=0,5, 10 and 15 mol.%)in-situ Composites at 1670 K. 2002 , 8, 233-240	3
859	Nanoindentation and nanoscratch measurements on silicone thin films synthesized by pulsed laser ablation deposition (PLAD). 2002 , 5, 151-161	11
858	Hardness profile analysis of elasto-plastic heat-treated steels with a gradient in yield strength. 2002 , 333, 160-169	12
857	Nanomechanical properties of lead iodide (PbI ₂) layered crystals. 2002 , 335, 6-13	14
856	Effects of the substrate on the determination of thin film mechanical properties by nanoindentation. 2002 , 50, 23-38	1171
855	Interfacial toughness measurements for thin films on substrates. 2002 , 50, 441-466	491
854	The influence of thermal annealing on residual stresses and mechanical properties of arc-evaporated TiC N _{1-x} (x=0 0.15 0.45) thin films. 2002 , 50, 5103-5114	58
853	A piezo-mechanical characterization of PZT thick films screen-printed on alumina substrate. 2002 , 96, 157-166	48
852	Measuring mechanical properties of coatings: a methodology applied to nano-particle-filled sol-gel coatings on glass. 2002 , 36, 47-103	230
851	Derivation of tensile flow properties of thin films using nanoindentation technique. 2002 , 2, 525-531	18
850	Material properties of interstitial lamellae reflect local strain environments. 2002 , 20, 600-6	32
849	Anisotropic properties of human tibial cortical bone as measured by nanoindentation. 2002 , 20, 806-10	184

848	New procedure to determine steel mechanical parameters from the spherical indentation technique. 2002 , 34, 243-254	91
847	Measuring intrinsic elastic modulus of Pb/Sn solder alloys. 2002 , 34, 349-362	48
846	Nanohardness and elastic modulus at the interface of TiCx/Ni3Al composites determined by the nanoindentation technique. 2002 , 189, 72-77	3
845	Materials by design—exploiting the unique properties of pulsed laser deposition for the synthesis of novel hard materials and structures. 2002 , 197-198, 432-437	15
844	Study of plowing and friction at the surfaces of plastic deformed metals. 2002 , 35, 511-522	55
843	Influence of soft surface modification on rolling contact fatigue strength of machine element. 2002 , 35, 837-847	14
842	Evaluation of TiB2 coatings in sliding contact against aluminium. 2002 , 149, 14-20	52
841	The influence of temperature on the microstructure and mechanical properties of sputtered Cr2Nx coatings. 2002 , 149, 82-88	15
840	Ultra-microhardness testing procedure with Vickers indenter. 2002 , 149, 27-35	131
839	Mechanical properties of the plasma-sprayed Al2O3/ZrSiO4 coatings. 2002 , 150, 143-150	17
838	Elastic properties of hard TiCxNy films grown by dual ion beam sputtering. 2002 , 151-152, 365-369	10
837	Effect of high-energy implantation on TAFé titanium alloy. 2002 , 151-152, 42-46	3
836	Alumina coatings deposited with reactive DC magnetron sputtering in a CO2/O2 gas mixture. 2002 , 154, 262-267	9
835	On two indentation hardness definitions. 2002 , 154, 124-130	36
834	Mechanical characterization of DC magnetron sputtered amorphous TiAlCr coatings. 2002 , 155, 146-151	14
833	Effect of high energy argon implantation into NiTi shape memory alloy. 2002 , 158-159, 301-308	20
832	Structural and mechanical characterisation of boron and nitrogen implanted NiTi shape memory alloy. 2002 , 158-159, 309-317	33
831	Ion-beam induced chemical and structural modification in polymers. 2002 , 158-159, 108-113	47

830	Study of the tribological modifications induced by nitrogen implantation on metals of the Va group. 2002 , 158-159, 653-657	8
829	Transition metal nitrides thin films deposition using a dynamically controlled magnetron sputtering apparatus. 2002 , 158-159, 680-684	20
828	Microhardness characterization of superlattices formed by reactive magnetron sputtering and ion beam assisted deposition. 2002 , 158-159, 685-689	7
827	Influence of high-energy Si ⁺ ion irradiation on microstructure and mechanical properties of alumina films. 2002 , 158-159, 534-537	10
826	Successive ion implantation of high doses of carbon and nitrogen on steels. 2002 , 158-159, 630-635	19
825	Metal-ion implantation effects on nano-hardness and tribological properties of Nylon6. 2002 , 161, 1-10	10
824	Imaging and measurement of local mechanical material properties by atomic force acoustic microscopy. 2002 , 33, 65-70	186
823	Microstructure and hardness of HIP-bonded regions in F82H blanket structures. 2002 , 307-311, 289-292	7
822	Indentation fracture toughness of neutron irradiated silicon carbide. 2002 , 307-311, 1163-1167	28
821	Evaluation of hardening behaviour of ion irradiated reduced activation ferritic/martensitic steels by an ultra-micro-indentation technique. 2002 , 307-311, 260-265	36
820	Synthesis of amorphous silicon carbonitride films by pulsed laser deposition. 2002 , 402, 99-110	23
819	Ion irradiation effects on hardness and elastic modulus in AZ 1350J photoresist film. 2002 , 411, 256-261	10
818	3-D focused ion beam mapping of nanoindentation zones in a Cu ₂ Ni multilayered coating. 2002 , 413, 147-154	29
817	Synthesis and characterization of single and multilayer boron nitride and boron carbide thin films grown by magnetron sputtering of boron carbide. 2002 , 414, 129-135	20
816	Frictional contact analysis of scratch test for elastic and elastic-plastic thin-coating/substrate materials. 2002 , 414, 63-71	14
815	Structural and optical properties of nitrogen and oxygen doped a-C:H coatings. 2002 , 415, 195-200	9
814	Plasma deposition of amorphous carbon films from CH ₄ atmospheres highly diluted in Ar. 2002 , 419, 46-53	23
813	Microstructure and nanomechanical properties of Al ₂ MgB ₂ Ni films synthesized by pulsed laser deposition. 2002 , 418, 129-135	28

812	Mechanical properties of silica(meth)acrylate hybrid coatings on polycarbonate substrate. 2002 , 43, 6169-6181	94
811	Superconductive coatings fabricated via external injection into a d.c. plasma. 2002 , 65, 409-413	1
810	Tribological study of vanadium-based alloys ion implanted at low energy and high temperature. 2002 , 67, 543-550	5
809	Tribological behaviour of hard coatings deposited by arc-evaporation PVD. 2002 , 67, 559-566	87
808	Synthesis and mechanical properties of BCN coatings deposited by PECVD. 2002 , 68, 335-339	14
807	Nanotribology of CoCr/UMWPE TJR prosthesis using atomic force microscopy. 2002 , 253, 1145-1155	39
806	Photo-oxidation effects on mechanical properties of epoxy matrixes: Young's modulus and hardness analyses by nano-indentation. 2002 , 77, 465-475	19
805	Mechanical and in vitro testing of aerosol-gel deposited titania coatings for biocompatible applications. 2002 , 23, 349-56	32
804	Dental resin composites containing silica-fused whiskers--effects of whisker-to-silica ratio on fracture toughness and indentation properties. 2002 , 23, 735-42	71
803	Variation of nanomechanical properties of bone by gene mutation in the zebrafish. 2002 , 23, 4557-63	25
802	The correlation of the indentation size effect measured with indenters of various shapes. 2002 , 50, 681-694	595
801	Application of a Depth Sensing Indentation Hardness Test to Evaluate the Mechanical Properties of Food Materials. 2002 , 67, 1814-1820	50
800	Unstable plastic flow in the Al-3% Mg alloy in the process of continuous nanoindentation. 2002 , 44, 1310-1315	6
799	Evaluation of dual-ion irradiated β -SiC by means of indentation methods. 2002 , 307-311, 1187-1190	15
798	Mechanical properties improvement of pulsed laser-deposited hydroxyapatite thin films by high energy ion-beam implantation. 2002 , 186, 483-489	22
797	Nanocrystalline diamond thin films deposited by 35 kHz Ar-rich plasmas. 2002 , 185, 321-325	11
796	Effects of the low energy-ion beam assistance in the properties of TiCxNy thin films. 2002 , 151-152, 189-193	
795	Dose effect on mechanical properties of high-energy nitrogen implanted 316L stainless steel. 2002 , 151-152, 377-382	16

794	Performance of chromium nitride and titanium nitride coatings during plastic injection moulding. 2002 , 153, 160-165	46
793	Characterization of Cu/Ni multilayer coatings by nanoindentation and atomic force microscopy. 2002 , 155, 195-202	69
792	Thermal stability of hard TiN/SiN _x multilayer coatings with an equiaxed microstructure. 2002 , 154, 162-166	38
791	Young's modulus and fracture toughness determination of high velocity oxy-fuel-sprayed bioceramic coatings. 2002 , 155, 21-32	63
790	Porous nanocrystalline titania films by plasma electrolytic oxidation. 2002 , 154, 314-318	102
789	Wear resistance of a high-nitrogen austenitic stainless steel coated with nitrogenated amorphous carbon films. 2002 , 161, 224-231	18
788	Temperature dependence of mechanical properties of DLC/Si protective coatings prepared by PECVD. 2002 , 324, 251-254	41
787	The mechanical properties of different lamellae and domains in PST-TiAl investigated with nanoindentations and atomic force microscopy. 2002 , 329-331, 184-189	30
786	On the measurement of the nanohardness of the constitutive phases of TRIP-assisted multiphase steels. 2002 , 328, 26-32	131
785	A TEM investigation on indentation plastic zones in Ni ₃ Al(Cr,B) single crystals. 2002 , 50, 2677-2691	69
784	Nanoindentation and nanoscratch testing of uniaxially and biaxially drawn poly(ethylene terephthalate) film. 2002 , 43, 319-327	99
783	Growth and microhardness of SiC films by plasma-enhanced chemical vapor deposition. 2002 , 406, 138-144	38
782	Mechanical characterisation of laser surface alloyed aluminium-copper systems. 2002 , 253, 1077-1085	51
781	Laser nitriding of metals. 2002 , 47, 1-161	257
780	Numerical analysis of indentation-induced cracking of brittle coatings on ductile substrates. 2002 , 39, 1427-1442	102
779	Microstructural elasticity and regional heterogeneity in human femoral bone of various ages examined by nano-indentation. 2002 , 35, 189-98	222
778	Mechanical properties in long bones of rat osteopetrotic mutations. 2002 , 35, 161-5	49
777	Nanoindentation and storage of teeth. 2002 , 35, 995-8	249

776	Porous tantalum and alumina films from non-thickness limited anodising in phosphate/glycerol electrolyte. 2002 , 48, 37-42	25
775	Investigation of Polished Single Crystal ZnO by Nanoindentation. 2002 , 51, 483-486	24
774	Emerging Trends in Surface Metrology. 2002 , 51, 701-723	58
773	Sharp indentation behavior of carbon/carbon composites and varieties of carbon. 2002 , 40, 2567-2579	51
772	Identification of elastic-plastic material parameters from pyramidal indentation of thin films. 2002 , 458, 1593-1620	74
771	Mechanical properties of layered InSe and GaSe single crystals. 2002 , 91, 140	38
770	The transition from elastic to plastic behaviour in an Al-Cu-Fe quasicrystal studied by cyclic nanoindentation. 2002 , 82, 2161-2172	33
769	The influence of sintering additives on the indentation response of liquid-phase-sintered polycrystalline aluminas. 2002 , 82, 2041-2057	5
768	Nanoindentation of Silver Nanowires. 2003 , 3, 1495-1498	305
767	Adhesion of polymer thin-films and patterned lines. 2003 , 119/120, 475-485	44
766	Mechanical properties and fracture toughness of organo-silicate glass (OSG) low-k dielectric thin films for microelectronic applications. 2003 , 119/120, 487-499	60
765	Measurement of Creep Compliance of Solid Polymers by Nanoindentation. 2003 , 7, 189-207	236
764	Enamel structure properties controlled by engineered proteins in transgenic mice. 2003 , 18, 2052-9	40
763	Investigation of the Mechanical Twinning of Antimony Single Crystals by Nanoindentation. 2003 , 76, 200-203	
762	Physical Aging of Polycarbonate: Elastic Modulus, Hardness, Creep, Endothermic Peak, Molecular Weight Distribution, and Infrared Data. 2003 , 36, 7585-7597	61
761	A critical review of microscale mechanical testing methods used in the design of microelectromechanical systems. 2003 , 43, 238-247	130
760	MD simulation for nanocrystals. 2003 , 19, 485-507	5
759	Nanoindentation and AFM studies of PECVD DLC and reactively sputtered Ti containing carbon films. 2003 , 26, 585-591	15

758	Deposition of TiN/CrN hard superlattices by reactive d.c. magnetron sputtering. 2003 , 26, 233-237	31
757	Strengthening by high densities of nanometer-size precipitates: Oxides in Ni. 2003 , 34, 935-949	11
756	Mechanical properties of intermetallic compounds associated with Pb-free solder joints using nanoindentation. 2003 , 32, 1375-1383	48
755	Analysis of physical properties of III-nitride thin films by nanoindentation. 2003 , 32, 496-500	43
754	Improvement of heteroepitaxial growth by the use of twist-bonded compliant substrate: Role of the surface plasticity. 2003 , 32, 861-867	2
753	Measuring the mechanical properties of Pb-free solder and Sn-based intermetallics by nanoindentation. 2003 , 55, 66-69	46
752	Hydrogen and deformation: Nano- and microindentation studies. 2003 , 55, 47-50	14
751	Congenital lack of COX-2 affects mechanical and geometric properties of bone in mice. 2003 , 73, 387-92	33
750	Nanoindentation stress-strain curves as a method for thin-film complete mechanical characterization: application to nanometric CrN/Cr multilayer coatings. 2003 , 77, 419-426	68
749	Micro/Nanomechanical and Tribological Properties of Thin Diamond-Like Carbon Coatings. 2003 , 16, 47-51	2
748	Hardness Measurement and Evaluation of Thin Film on Material Surface. 2003 , 16, 52-58	4
747	The effects of triple junctions and grain boundaries on hardness and Young's modulus in nanostructured Ni ₃ P. 2003 , 48, 825-830	130
746	Assessing welding residual stress in A335 P12 steel welds before and after stress-relaxation annealing through instrumented indentation technique. 2003 , 48, 743-748	60
745	A new function for the description of the nanoindentation unloading data. 2003 , 49, 93-97	17
744	Measurement of residual-stress effect by nanoindentation on elastically strained (100) W. 2003 , 49, 459-465	124
743	Mechanical behavior of bulk (ZrHf)TiCuNiAl amorphous alloys. 2003 , 49, 447-452	13
742	Comment on "Lattice constant dependence of elastic modulus for ultrafine grained mild steel" 2003 , 49, 913-916	8
741	Physical properties of root cementum: part 2. Effect of different storage methods. 2003 , 124, 561-70	30

740	Multi-parameter models of the viscoelastic/plastic mechanical properties of coatings via combined nanoindentation and non-linear finite element modeling. 2003 , 47, 312-323	37
739	The NIST microforce realization and measurement project. 2003 , 52, 508-511	44
738	Viscoelastic effects on the scratch resistance of polymers: relationship between mechanical properties and scratch properties at various temperatures. 2003 , 48, 322-331	135
737	Nanoparticle-filled silane films as chromate replacements for aluminum alloys. 2003 , 47, 384-392	243
736	Evaluation of temper softening behavior of Fe $\bar{\Gamma}$ binary martensitic steels by nanoindentation. 2003 , 49, 1157-1162	69
735	Effects of different whiskers on the reinforcement of dental resin composites. 2003 , 19, 359-67	98
734	Mechanism of strength increase for a hydrothermal porcelain. 2003 , 19, 625-31	11
733	Track formation in amorphous Fe _{0.55} Zr _{0.45} alloys irradiated by MeV C ₆₀ ions: Influence of intrinsic stress on induced surface deformations. 2003 , 209, 85-92	8
732	Nanoindentation study of Ni ₄₅ Nb ₅₅ amorphous films prepared by ion beam assisted deposition. 2003 , 211, 339-345	1
731	Hardness of C, CN _x and AlN thin films after rapid thermal annealing. 2003 , 82, 452-457	6
730	Determining the stress-strain behaviour of small devices by nanoindentation in combination with inverse methods. 2003 , 67-68, 818-825	41
729	Effects of viscoelasticity and time-dependent plasticity on nanoindentation measurements of human cortical bone. 2003 , 67, 208-14	98
728	Nanoscale in vivo evaluation of the stiffness of Drosophila melanogaster integument during development. 2003 , 66, 633-42	15
727	Preparation of siloxane-silsesquioxane hybrid thin films for large-scale-integration interlayer dielectrics with excellent mechanical properties and low dielectric constants. 2003 , 90, 626-634	32
726	Plastic deformation of III-V semiconductors under concentrated load. 2003 , 47, 1-43	39
725	Dynamic indentation for determining the strain rate sensitivity of metals. 2003 , 51, 1923-1938	38
724	Radiation and helium effects on microstructures, nano-indentation properties and deformation behavior in ferrous alloys. 2003 , 323, 251-262	80
723	Mechanical degradation of microelectronics solder joints under current stressing. 2003 , 40, 7269-7284	46

722	Experimental comparison of N(1s) X-ray photoelectron spectroscopy binding energies of hard and elastic amorphous carbon nitride films with reference organic compounds. 2003 , 41, 1917-1923	198
721	Heat treatment of thin carbon films and the effect on residual stress, modulus, thermal expansion and microstructure. 2003 , 41, 1867-1875	23
720	Effects of N ion energy on titanium nitride films deposited by ion assisted filtered cathodic vacuum arc. 2003 , 374, 264-270	25
719	Elasticity of alveolar bone near dental implant-bone interfaces after one month's healing. 2003 , 36, 1209-14	55
718	Enamel dissolution as a function of solution degree of saturation with respect to hydroxyapatite: a nanoindentation study. 2003 , 265, 9-14	53
717	Low temperature growth and characterization of (Na,K)NbO _x thin films. 2003 , 254, 400-404	16
716	Preparation of reproducible glassy carbon electrodes by removal of polishing impurities. 2003 , 540, 7-15	54
715	An experimentally driven high-throughput approach to design refractory high-entropy alloys. 2022 , 223, 111259	0
714	Microstructural and hardness investigation of a multiphase Mo-Si-B alloy processed by laser surface remelting. 2022 , 450, 129012	0
713	Bioactivity Enhancement by a Ball Milling Treatment in Novel Bioactive Glass-Hydroxyapatite Composites produced by Spark Plasma Sintering. 2022 ,	0
712	Mechanical properties of young mice tibia in four circumferential quadrants under nanoindentation. 2022 , 144, 111350	0
711	Material gradients in gastropod radulae and their biomechanical significance: a combined approach on the paludomid <i>Lavigeria grandis</i> . 2022 , 109,	0
710	Oxynitride c-Al _{0.7} Cr _{0.3} O _x N(1-x) arc-PVD hard-coatings, processing, mechanical properties & stability at high temperatures. 2022 , 449, 128974	0
709	Indentation cracking in mono and polycrystalline cubic zirconia: Methodology of an apparent fracture toughness evaluation. 2022 , 144261	0
708	Formation of β -oriented shear bands and its significant impact on recrystallization texture in strip-cast electrical steel. 2022 , 21, 1770-1783	0
707	Residual thermal stress, fracture toughness, and hardness in WC-Co cemented carbide: Finite element simulation and experimental verification. 2022 , 21, 2445-2454	0
706	Effect of microneedles shape on skin penetration and transdermal drug administration. 2022 , 142, 213169	0
705	Coupled benefits of nanotopography and titania surface chemistry in fostering endothelialization and reducing in-stent restenosis in coronary stents. 2022 , 142, 213149	0

- 704 Tribocorrosion Behaviour of Laser-Induced Periodic Surface Structured Ti6Al4V. **2023**, 9, 0
- 703 Multi-scale creep analysis of cement paste Indentation prediction and time correspondence of mechanisms. **2022**, 134, 104815 0
- 702 Microstructural characterization and dry sliding wear behavior of boride layers grown on Invar-36 superalloy. **2022**, 449, 128973 1
- 701 Overall optimization in microstructure and mechanical properties of 5 wt% SiC/7075Al composites by high-frequency electric pulse assisted treatment. **2022**, 21, 2156-2167 0
- 700 Deformation-induced microstructural evolution of fiber-matrix interface in pyrolytic carbon-carbon composites. **2022**, 118498 0
- 699 Synthesis and characterization of the ceramic refractory metal high entropy nitride thin films from Cr-Hf-Mo-Ta-W system. **2022**, 449, 128987 0
- 698 Microstructural and mechanical property characterization of Argillaceous, Kerogen-rich, and Bituminous shale rocks. **2022**, 108, 104827 0
- 697 Microstructure and mechanical properties of UNbTiHf1-xMox high-entropy alloys. **2022**, 860, 144239 0
- 696 A unified sharp indentation method for obtaining stress-strain relations, strength and Vickers hardness of ductile metallic materials. **2022**, 33, 104652 0
- 695 High-throughput determination of mechanical and diffusion properties in the TiNbBe alloys. **2022**, 79, 102497 0
- 694 Strengthening of pretreated aluminum during ultrasonic additive manufacturing. **2022**, 60, 103228 0
- 693 Micro mechanical property investigations of Ni-based high-temperature alloy GH4169 based on nanoindentation and CPFÉ simulation. **2022**, 258, 111999 0
- 692 The role of molecular architecture on the viscoelastic properties of thermoreversible polyurethane adhesives. **2022**, 262, 125431 0
- 691 Nanoscale viscoelasticity characterization of engineered organometallic nanocomposite thin films for biomedical applications. **2022**, 33, 104719 0
- 690 Enhanced mechanical and biocompatibility performance of Ti(1-)Ag(x) coatings through intermetallic phase modification. **2022**, 194, 112401 0
- 689 Sustainable development of basalt fiber-reinforced high-strength eco-friendly concrete with a modified composite binder. **2022**, 17, e01550 0
- 688 Effect of textures fabricated by ultrasonic surface rolling on dry friction and wear properties of GCr15 steel. **2022**, 84, 798-814 0
- 687 Mechanical size effect and serrated flow of various Zr-based bulk metallic glasses. **2022**, 151, 107737 0

- 686 Micro and nano damage observations of martensitic and austenitic open cell cast foams. **2022**, 860, 144253 ○
- 685 Collagen cross-link profiles and mineral are different between the mandible and femur with site specific response to perturbed collagen. **2022**, 17, 101629 ○
- 684 Directly upcycling copper mining wastewater into a source of mixing water for the preparation of alkali-activated slag materials. **2022**, 168, 362-371 ○
- 683 Extraction of the plastic properties of metallic materials from scratch tests using deep learning. **2022**, 175, 104502 ○
- 682 Comparative study of biomaterial surface modification due to subcritical CO₂ and autoclave disinfection treatments. **2022**, 191, 105789 ○
- 681 Effect of nanoindentation experimental parameters on the estimation of the plastic events in metallic glasses employing various analysis methods. **2022**, 151, 107748 ○
- 680 Distribution of the mechanical properties of TiCu combinatorial thin film evaluated using nanoindentation experiments and molecular dynamics with a neural network potential. **2022**, 33, 104750 ○
- 679 Oxidation behaviour and mechanical properties of sputter-deposited TMSi₂ coatings (TM = Mo, Ta, Nb). **2023**, 931, 167532 ○
- 678 Reactive spark plasma sintering of NiAl intermetallics: A comparative study. **2023**, 152, 107750 2
- 677 Influence of Co-enriched surface zones in cemented carbides on the microstructure and mechanical properties of TiN/TiC_{0.6}N_{0.4}/Al₂O₃ coatings. **2023**, 110, 106025 ○
- 676 Nanoindentation hardness of Ge₅₀In₄Ga₁₃Se₃₃ chalcogenide glass thin films. **2023**, 599, 121972 ○
- 675 Strategic texturation of VO₂ thin films for tuning mechanical, structural, and electronic couplings during metal-insulator transitions. **2023**, 242, 118478 ○
- 674 Indentation size effect in exceptionally hard AlCu thin films. **2023**, 330, 133409 1
- 673 Hierarchical machine learning based structure-property correlations for as-cast complex concentrated alloys. **2023**, 216, 111855 ○
- 672 On the measurement of hardness at high strain rates by nanoindentation impact testing. **2023**, 170, 105105 ○
- 671 Controlling microstructure and mechanical properties of Ti-V-Cr-Nb-Ta refractory high entropy alloys through heat treatments. **2023**, 932, 167651 ○
- 670 Self-healing materials based on disulfide bond-containing acrylate networks. **2023**, 117, 107832 ○
- 669 Prediction of bulk mechanical properties of PVC foam based on microscopic model: Part II-Material characterization and analytical formulae. **2023**, 117, 107846 ○

- 668 Comparative study on mechanical and tribological properties of CrAlN and CrAlD coatings deposited by cathodic arc evaporation. **2023**, 177, 107989 ○
- 667 Nano-mechanical and nano-tribological characterisation of self-lubricating MoS₂ nano-structured coating for space applications. **2023**, 178, 108017 ○
- 666 Current Mechanical Test Methodologies. **2010**, 43-74 ○
- 665 Elastic Modulus and Hardness of Potassium Tantalum Germanate Glasses and Glass-Ceramics. 25, ○
- 664 Chemo-mechanical effect of chlorine modified TiO₂ coatings on LMO. 1
- 663 DC planar magnetron sputter deposition of boron thin films and their properties. **2022**, ○
- 662 Characterizations of specific mechanical behaviors for metallic materials with representative crystal structures using nanoindentation. **2023**, 207, 111661 1
- 661 Preparation of ultra-large intermetallic particles in Al alloys for accurate determination of their mechanical properties. **2023**, 152, 107771 1
- 660 Imaging geomechanical properties of shales with infrared light. **2023**, 334, 126467 ○
- 659 Self-assembled functional layers onto separator toward practical lithium metal batteries. **2023**, 454, 140191 1
- 658 Role of indenter geometry on the deformation behavior in a Pd-Si based metallic and nanoglass. **2023**, 933, 167693 ○
- 657 Study on Characterization Methods of Tip Radius of AFM Worn Probe. **2022**, ○
- 656 Influence of high-temperature ion irradiation on nanostructured TiAlN coatings. **2022**, 39-47 ○
- 655 Mechanical Properties of a Laser-Modified Amorphous FeNiB Alloy. **2022**, 2022, 1264-1269 ○
- 654 ??????????????????????. **2022**, ○
- 653 Study of the Mechanical Properties of NiTi Modified by Carbon Plasma Immersion Ion Implantation Using Nano-Indentation Test and Finite Element Method Simulation. ○
- 652 Multi-component oxide lens glass with ultra-high mechanical properties inspired by the high-entropy concept. **2022**, ○
- 651 Nanoindentation responses near single grain boundaries in oxide ceramics. ○

- 650 The gut microbiome has sexually dimorphic effects on bone tissue energy metabolism and multiscale bone quality in C57BL/6J mice. ○
- 649 Mechanical Properties of a New Hybrid Inorganic/Organic Framework: A Nanoindentation, High-Pressure X-ray Diffraction, and Computational Study. ○
- 648 Investigation of Changes in the Structural-Phase State and the Efficiency of Hardening of 30CrMnSiA Steel by the Method of Electrolytic Plasma Thermocyclic Surface Treatment. **2022**, 12, 1696 ○
- 647 Micromechanical Observation and Numerical Simulation for Local Deformation Evolution of Duplex Stainless Steel. **2022**, 15, 8076 ○
- 646 Nanoindentation measurements of anisotropic mechanical properties of single crystalline NMC cathodes for Li-ion batteries. **2022**, 101920 ○
- 645 Study on the substrate surface micro-texturing/carburizing regulating the film-substrate adhesion and wear behavior of DLC coatings. **2022**, 109535 ○
- 644 Functionally graded ultra-high temperature ceramics: from thermo-elastic numerical analysis to damage tolerant composites. **2022**, 111379 ○
- 643 Enhanced irradiation-resistance of polymer-derived SiC by incorporation of multiwalled carbon nanotubes. **2022**, ○
- 642 The Microstructures and Characteristics of NiO Films: Effects of Substrate Temperature. **2022**, 13, 1940 1
- 641 Multiscale Femoral Neck Imaging and Multimodal Trabeculae Quality Characterization in an Osteoporotic Bone Sample. **2022**, 15, 8048 ○
- 640 Assessment of Nanomechanical and Tribological Performance of Refractory Nitride-Reinforced Titanium Alloy Matrix Composites Developed by Spark Plasma Sintering. ○
- 639 Blending PLA with Polyesters Based on 2,5-Furan Dicarboxylic Acid: Evaluation of Physicochemical and Nanomechanical Properties. **2022**, 14, 4725 ○
- 638 Hardening of CrCuAlFeO High-Entropy Composite Films. ○
- 637 Influence of varying carbon content in (V,Nb,Ta,Ti,W)C high entropy carbide - Ni based cermets on densification, microstructure, mechanical properties and phase stability. **2022**, ○
- 636 Ultrafine-grained B 6 O-diamond composites with superb mechanical properties. ○
- 635 Nanoindentation of Hg_{0.7}Cd_{0.3}Se Prepared by Molecular Beam Epitaxy. **2022**, 104446 ○
- 634 Indentation creep dynamics in metallic glasses under different structural states. **2022**, 107941 ○
- 633 Premature failure induced by non-equilibrium grain-boundary tantalum segregation in air-plasma sprayed ZrO₂/0.15TaO_{2.5} thermal barrier coatings. **2022**, 29, 2189-2200 1

- 632 Carburation Kinetics of Zircalloy-4 and Its Implication for Small Modular Reactor Performance. **2022**, 15, 8008 ○
- 631 Gradient plastic zone model in equiatomic face-centered cubic alloys. ○
- 630 Testing and Analysis of Micro Fracture Properties. **2023**, 235-292 ○
- 629 Nano-to-microscale ductile-to-brittle transitions for edge cracking suppression in single-diamond grinding of lithium metasilicate/disilicate glass-ceramics. **2022**, ○
- 628 Artificial intelligence based analysis of nanoindentation load-displacement data using a genetic algorithm. **2022**, 155734 ○
- 627 Tribological performance of (Cr,Al)N+Mo:W:Sg in fluid-free friction regime. **2022**, 204557 ○
- 626 Annealing Effect on the Structural, Magnetic, Electrical, Optic Property, Nanomechanical, and Adhesive Characteristics of Co60Fe20Yb20 Thin Films on Glass Substrate. **2022**, 12, 1753 ○
- 625 Improvement of Tribological Performance of TiAlNbN Hard Coatings by Adding AlCrN. **2022**, 15, 7750 ○
- 624 The structural motifs of mineralized hard tissues from nano- to mesoscale: A future perspective for material science. **2022**, 58, 348-356 1
- 623 Effect of Plasma Nitriding on Structure and Properties of Titanium Grade 2 Produced by Direct Metal Laser Sintering. ○
- 622 Experimental Techniques. **2023**, 41-89 ○
- 621 Strengthening mechanisms of AlCoCrFeNi-WC-Ti coating from first-principles calculations. **2022**, 33, 104869 ○
- 620 Characterization of power-law constitutive relationship of nickel-based single crystal superalloys under different loading rates by nanoindentation with different types of indenters. **2022**, 259, 112025 ○
- 619 Study on mechanical properties and size effect of coal gangue concrete at mesoscale. **2022**, 360, 129551 ○
- 618 Effect of carbon content on the structural, mechanical and corrosion properties of TiC films deposited using a HiPIMS discharge. **2022**, 451, 129028 ○
- 617 Flexible photonics in low stiffness doped silica for use in fibre reinforced polymer composite materials. **2022**, 134, 113133 ○
- 616 Effect of heat input on nanomechanical properties of wire-arc additive manufactured Al 4047 alloys. **2022**, 860, 144288 ○
- 615 Mechanical Properties and Oxidation Behavior of TaWSiN Films. **2022**, 15, 8179 ○

614	Graded Inconel-Stainless Steel Multi-Material Structure by Inter- and Intralayer Variation of Metal Alloys. 2022 ,	0
613	Micromechanical Properties. 1-50	0
612	Self-layering of (Ti,Al)N by interface-directed spinodal decomposition of (Ti,Al)N/TiN multilayers: First-principles and experimental investigations. 2022 , 224, 111392	1
611	A systematic investigation of the tribological behaviour of oxides formed on AlSiTiN, CrAlTiN, and CrAlSiTiN coatings. 2023 , 512-513, 204552	0
610	Influence of Friction Stir Processing on the Friction, Wear and Corrosion Mechanisms of Solid-State Additively Manufactured 316L Duplex Stainless Steel. 2023 , 178, 108033	6
609	Exploring the anneal hardening phenomenon in nanocrystalline Pt-Ru alloys. 2023 , 935, 168005	1
608	Oil-lubricated sliding wear performance of TiSiCN-coated ductile iron. 2022 , 204567	0
607	Toward a better modulus at shallow indentationsEnhanced tip and sample characterization for quantitative atomic force microscopy.	0
606	Plastically Bendable Organic Crystals for Monolithic and Hybrid Micro-Optical Circuits. 2201518	1
605	One-Step Femtosecond Laser Irradiation of Single-Crystal Silicon: Evolution of Micro-Nano Structures and Damage Investigation. 2023 , 225, 111443	0
604	Densifying hydration products of alite by a bio-inspired admixture. 2023 , 225, 111490	1
603	Mechanical properties of maze-like carbon nanowalls synthesized by the radial injection plasma enhanced chemical vapor deposition method. 2023 , 862, 144428	0
602	Effect of cutting speed on shear band formation and chip morphology of Ti ₆ Al ₄ V alloy using nanoindentation and EBSD mapping. 2023 , 862, 144372	0
601	Microstructural evolution and nano-mechanical properties of Ti-Al-based alloys synthesized by laser in-situ alloying. 2022 , 370, 03001	0
600	Analytical Techniques for Hardness, Nanoindentation, and Elastic Modulus. 2022 , 1-14	0
599	Effect of bias voltage and nitrogen content on the morphological, structural, mechanical, and corrosion resistance properties of micro-alloyed Ti _{1-x} Al _{0.8x} P _{0.2x} N _y films deposited by high power impulse magnetron sputtering. 2023 , 41, 013101	0
598	Investigation into shale softening induced by water/CO ₂ -rock interaction. 2023 , 161, 105299	0
597	3D deformation modeling of CrAlN coated tool steel compound during nanoindentation. 2023 , 453, 129148	0

- 596 Nano-scale mechanical characteristics of epitaxial stabilization ZrTiN/NbN superlattice coatings. **2023**, 453, 129123 ○
- 595 Tribochemically driven dehydrogenation of undoped sodium alanate under room temperature. **2022**, 25, 494-508 ○
- 594 Plasticity of the C15-CaAl₂ Laves phase at room temperature. **2023**, 225, 111504 ○
- 593 Influence of anisotropy on the deformation behaviour in microtensile 316L steel specimens fabricated by laser powder bed fusion (PBF-LB/M). **2023**, 863, 144521 ○
- 592 Biodegradable porous FeMn(Ag) alloys: assessment of cytocompatibility, mechanical, magnetic and antibiofilm properties. ○
- 591 Nanoindentation creep behavior of nanocrystalline Ni and Ni-20 wt% Fe alloy and underlying mechanisms revealed by apparent activation volumes. **2023**, 225, 111479 ○
- 590 Structure, mechanical and thermal properties of CrAlBSiN coatings prepared by cathodic arc evaporation. **2023**, 452, 129094 ○
- 589 A novel approach to fabricate load-bearing Ti6Al4V-Barium titanate piezoelectric bone scaffolds by coupling electron beam melting and field-assisted sintering. **2023**, 225, 111428 ○
- 588 A novel methodology for the prediction of the stress-strain response of laser powder bed fusion lattice structure based on a multi-scale approach. **2023**, 863, 144526 1
- 587 Tensile over-saturated cracking of Ultra-High-Strength Engineered Cementitious Composites (UHS-ECC) with artificial geopolymer aggregates. **2023**, 136, 104896 5
- 586 Improving metal surface integrity by integrating mechanical stress fields during micron- and nano-abrasive machining. **2023**, 240, 107928 ○
- 585 Ultra-lightweight living structural material for enhanced stiffness and environmental sensing. **2023**, 18, 100504 ○
- 584 Reducing carbonation degradation and enhancing elastic properties of calcium silicate hydrates using biomimetic molecules. **2023**, 136, 104888 ○
- 583 Association between nanoscale strains and tissue level nanoindentation properties in age-related hip-fractures. **2023**, 138, 105573 ○
- 582 Achieving high toughness and wear resistance for hard TaN-Ag films actuated by Ag. **2023**, 111, 106076 ○
- 581 A computational framework for micromechanical modelling of WC-Co composites. **2023**, 111, 106053 ○
- 580 Reactive interdiffusion of an Al film and a CoCrFeNi high-entropy alloy at elevated temperatures. **2023**, 153, 107797 ○
- 579 Effects of aging treatment on microstructure and mechanical properties of non-equiatomic high entropy alloy. **2023**, 153, 107799 ○

578	Preparation and characterization of very thin polymer inclusion membranes (PIMs) and their application to the transport of thiocyanate. 2023 , 668, 121249	0
577	Analysis of wear of a nitrided AISI H13 hot work tool steel in an aluminium hot extrusion process. 2023 , 514-515, 204587	1
576	Evolution of microstructure, mechanical and thermal properties with varied oxygen contents in TiAlON coatings. 2023 , 111, 106074	0
575	Multilayer thin film metallic glasses under nanoscratch: Deformation and failure characteristics. 2023 , 601, 122047	0
574	Preparation of collagen fibrils from mineralized tissues and evaluation by atomic force microscopy. 2023 , 138, 105624	0
573	Insight on the mechanical properties of hierarchical porous calcium-silicate-hydrate pastes according to the Ca/Si molar ratio using in-situ synchrotron X-ray scattering and nanoindentation test. 2023 , 365, 130034	0
572	Interface MicrostructureBased Mechanical Property Evaluation of C-S-H. 2023 , 35,	0
571	The effect of Ta addition on mechanical properties of Zr-based bulk metallic glasses. 2023 , 153, 107779	0
570	Dynamic indentation testing and characterization of metals based on the split Hopkinson pressure bar (SHPB) device. 2023 , 177, 104550	0
569	Acquisition of heterogeneous constitutive relationship of Ni60 laser cladding layer based on nano-indentation experiment. 2023 , 34, 105049	0
568	Mechanical properties estimation of 2D/3D mixed organic-inorganic perovskites based on methylammonium and phenylethyl-ammonium system using a combined experimental and first-principles approach. 2023 , 936, 168328	0
567	Multiscale characterization of the mechanical behavior of a printed circuit board (PCB). 2023 , 34, 104968	1
566	Influence of Edge Crack Propagation on Critical Current Degradation of REBCO Tape Studied by Phase-Field Fracture Method and Current Shunting Model. 2023 , 33, 1-11	0
565	Structural and mechanical behavior of Zr-W-Ti thin film metallic glasses prepared by multitarget co-magnetron sputtering. 2023 , 936, 168330	0
564	Investigation the temperature-dependent surface mechanical properties of PolyJet printed samples by cyclic indentation testing in a DMA system. 2023 , 17, 100360	0
563	Is the hardness of material harder than diamond reliable?. 2023 , 144, 111-117	1
562	Micro-embossing of micro-structures in RSA-501 as mold inserts for the replication of micro-lens arrays. 2023 , 17, 100793	0
561	Comparative durability study of commercial inner-pore antireflection coatings and alternative dense coatings. 2023 , 251, 112122	0

560	Shear transformation zones and serrated flow dynamics of metallic glasses revealed by nanoindentation. 2023 , 936, 168165	0
559	Nanomechanical and Tribological Properties of Hexagonal-Boron Nitride-Enhanced Sintered Titanium Alloy Matrix Composites. 2022 , 370, 03005	0
558	Effects of TaN nanoparticles on microstructure, mechanical properties and tribological performance of PEEK coating prepared by electrophoretic deposition. 2022 , 32, 3334-3348	0
557	Structure Formation in Silicon Carbide/Alumina Composites during Electroconsolidation. 2022 , 44, 339-349	1
556	Influence of Surface Layer Condition of Al ₂ O ₃ +TiC Ceramic Inserts on Quality of Deposited Coatings and Reliability during Hardened Steel Milling. 2022 , 12, 1801	2
555	Effect Cooling Conditions on the Structure and Properties of Alloy VTI-4. 2022 , 64, 451-457	0
554	Amorphous silicon carbonitride a-SiCN thin film coatings by remote plasma chemical vapor deposition using organosilicon precursor: Effect of plasma composition.	0
553	On the determination of the elastic properties of anisotropic materials from indentation measurements.	0
552	Investigating mechanical and biological properties of additive manufactured Ti6Al4V lattice structures for orthopedic implants.	0
551	Influence of pulsed Nd:YAG laser welding power on the microstructures and nano creep behaviour of Ti5Al2.5Sn beads. 146442072211381	0
550	Detecting Thermally-Induced Spinodal Decomposition with Picosecond Ultrasonics in Cast Austenitic Stainless Steels. 2022 , 118552	1
549	Effect of Annealing and Thickness of Co ₄₀ Fe ₄₀ Yb ₂₀ Thin Films on Various Physical Properties on a Glass Substrate. 2022 , 15, 8509	1
548	Probing the impact of grain interior and grain boundaries on the mechanical behavior of a high-Mn austenitic steel. 2022 , 21, 5098-5110	0
547	Comparison of the Structure and Properties of a Tube from Titanium Alloy Ti 13% Al 2.5% V with Results of Digitalization of the Process of its Pressing. 2022 , 64, 458-464	0
546	Effect of groove-textured 4H-SiC on the deformation behavior of deposited film using molecular dynamics. 2022 , 128,	0
545	Nanoindentation simulation of gallium nitride grown in Different orientations on a sapphire substrate using finite element method. 2022 ,	0
544	Surface characterization of an ultra-soft contact lens material using an atomic force microscopy nanoindentation method. 2022 , 12,	0
543	Cellulose Nanocrystals Examined by Atomic Force Microscopy: Applications and Fundamentals. 2022 , 2, 1789-1818	2

542	Enhanced mechanical and electrical properties of ECR-glass reinforced polyimide composites with incorporation of TiO ₂ for insulation applications. 089270572211422	0
541	Fluorine-free, highly transparent, chemically durable and low ice adhesion icephobic coatings from biobased epoxy and polydimethylsiloxane.	0
540	Determining the Constitutive Properties of Sintered Nano Silver via Reverse Analysis and Nanoindentation.	0
539	Optimization of Sputtering Process for Medium Entropy Alloy Nanotwinned CoCrFeNi Thin Films by Taguchi Method. 2022 , 15, 8238	0
538	Inch-Size Molecular Ferroelectric Crystal with a Large Electromechanical Coupling Factor on Par with Barium Titanate. 2022 , 144, 22325-22331	3
537	On the Stability of Complex Concentrated (CC)/High Entropy (HE) Solid Solutions and the Contamination with Oxygen of Solid Solutions in Refractory Metal Intermetallic Composites (RM(Nb)ICs) and Refractory Complex Concentrated Alloys (RCCAs). 2022 , 15, 8479	1
536	Experimental and Theoretical Study of Ultra-Hard AlMgB ₁₄ -TiB ₂ Composites: Structure, Hardness and Self-Lubricity. 2022 , 15, 8450	0
535	Mixed-mode magnetron and arc deposition of aluminum oxide films.	0
534	Dependence of the Surface Morphology and Micromechanical and Sclerometric Properties of Al ₂ O ₃ Layers on the Parameters of Anodizing Aluminum Alloy. 2022 , 15, 8482	0
533	Simulation of dynamic contact during shot blasting of parts. 2022 , 12, 64-77	0
532	DLC-Coated Thermoplastics: Tribological Analyses Under Dry and Lubricated Sliding Conditions. 2023 , 71,	0
531	Dimensionless Analysis to Determine Elastoplastic Properties of Thin Films by Indentation. 2022 , 12, 1768	1
530	Increased advanced glycation endproducts, stiffness, and hardness in iliac crest bone from postmenopausal women with type 2 diabetes mellitus on insulin.	0
529	Study on Size Effect in Indentation Tests. 2022 , 12, 1962	0
528	Hydroxyapatite/Bioglass nanocomposites: Structural, mechanical, and biological aspects. 13, 1490-1504	1
527	Ultrastrong conductive in situ composite composed of nanodiamond incoherently embedded in disordered multilayer graphene.	1
526	Stable a-CSi:H films with a wide range of modulus of elasticity and low internal stress. 2022 , 129147	0
525	The Activation Energy of Strain Bursts during Nanoindentation Creep on Polyethylene. 2023 , 16, 143	0

524	The Influence of Oxidation on the Magnetic, Electrical, and Mechanical Properties of Co40Fe40Yb20 Films. 2022 , 15, 8675	0
523	Mechanical response of silicon oxycarbide materials processed by spark plasma sintering. 2022 ,	0
522	Growth Kinetics, Microstructure Evolution, and Some Mechanical Properties of Boride Layers Produced on X165CrV12 Tool Steel. 2023 , 16, 26	0
521	Selection of New Heat Treatment Conditions for Novel Electroless Nickel-Boron Deposits and Characterization of Heat-Treated Coatings. 2023 , 13, 1	0
520	Green Bio-composite Coating Film from Lignin/Pre-vulcanized Natural Rubber Latex for Controlled-release Urea Fertilizer.	0
519	Microstructural and Tribological Behavior of Pack-Borided Ni-Based Hastelloy C-276 Superalloy.	1
518	Nanomechanical study of aqueous-processed h-BN reinforced PVA composites. 2023 , 34, 095703	1
517	On the thermal and mechanical properties of Mg _{0.2} Co _{0.2} Ni _{0.2} Cu _{0.2} Zn _{0.2} O across the high-entropy to entropy-stabilized transition. 2022 , 10, 121108	2
516	Structural, Mechanical, and Thermal Properties of the TiAlTaN/TiAlBN Multilayer. 2022 , 12, 1951	1
515	Disrupted cellulose aggregation leads to the reduced mechanical performance of wood-adhesive interphase during freeze-thaw cycles.	0
514	Microstructural, mechanical characterizations and corrosion behaviour of borides layers on Inconel 718 superalloy. 2022 , 16, 100783	0
513	The Influence of Probe Curvature on Articular Cartilage Friction Measurements.	0
512	Investigation of point defect evolution and Voronoi cluster analysis for magnesium during nanoindentation. 2022 ,	0
511	Core-Shell Electrospun Fiber Architecture Used as a Nanoreactor to Synthesize Conjugated Polymers.	0
510	EFFECT OF DEEP CRYOGENIC TREATMENT TIME ON MICROMECHANICAL AND TRIBOLOGICAL PROPERTIES OF MAGNESIUM ALLOYS WE43 AND WE54. 2022 , 302, 7-16	0
509	B 4 C reinforced NiTi-based composites: Microstructure and wear performance.	0
508	Improvement of the Tribocorrosion Properties of Cemented Carbide (WC-TiC-Co) Samples with PVD Coating. 2022 , 12, 1884	0
507	Synergetic enhancements on the mechanical and tribological performance of Al 10 Cr 17 Fe 20 NiV 4 medium entropy alloys induced by nano-Al ₂ O ₃ particles.	0

- 506 Failure mechanism of a (Ni, Pt)Al/EB-PVD 8YSZ deposited on substrate with different curvature signs in thermal shock test. **2022**, ○
- 505 Modification of the Surface of 40 Kh Steel by Electrolytic Plasma Hardening. **2022**, 12, 2071 ○
- 504 Industrially deposited hard and damage resistant W-B-C coatings. **2022**, 129150 ○
- 503 Assessment of the Mechanical and Corrosion Properties of Mg-1Zn-0.6Ca/Diamond Nanocomposites for Biomedical Applications. **2022**, 12, 4399 ○
- 502 Characteristics of Ancient Ship Wood from Taicang of the Yuan Dynasty. **2023**, 16, 104 1
- 501 Mineralogical Evolution and Expansion of Cement Pastes in a Sulfate-Confined Environment. **2023**, 13, 1 ○
- 500 Mechanical Property Measurement of Micro/Nanoscale Materials for MEMS : A Review. ○
- 499 Dimensionless analysis of the elastoplastic constitutive properties of single/multilayered films under nanoindentation. **2023**, 53, 214606 ○
- 498 Increasing the Strength, Hardness, and Survivability of Semiconducting Polymers by Crosslinking. 2202053 ○
- 497 Novel machine learning-based prediction approach for nanoindentation load-deformation in a thin film: Applications to electronic industries. **2022**, 174, 108824 ○
- 496 Mechanical Properties of β Phase and Its Effect on the Mechanical Properties of Austenitic Stainless Steel. **2022**, 12, 1917 ○
- 495 Influence of Stabilization Additive on Rheological, Thermal and Mechanical Properties of Recycled Polypropylene. **2022**, 14, 5438 ○
- 494 Monoclinic phase-free, low temperature spark plasma sintering of CeO₂-doped ZrO₂ ceramics and its associated benefits on mechanical properties. **2022**, ○
- 493 Large-Scale Plasma-Polymerized Hexamethyldisiloxane Thin Films: Role of Interelectrode Distance and Excellent Corrosion Resistance. **2022**, 14, 56169-56175 ○
- 492 Effects of a porous boron nitride nanofiber on nano-mechanical properties in shallow surface of WC-Si₃N₄ composite. **2022**, 2390, 012023 ○
- 491 A monolithic gold nanoparticle@metal-organic framework composite as CO₂ photoreduction catalyst. **2022**, 100293 ○
- 490 Wear Induced Sub-surface Deformation Characteristics of a 26 Wt% Cr White Cast Iron Subjected to a Destabilization Heat Treatment. **2023**, 71, ○
- 489 Influence of the deposition process and substrate on microstructure, phase composition, and residual stress state on as-deposited Cr-Al-C coatings. **2022**, 111535 ○

- 488 Mechanical Performance of AlCrSiN and AlTiSiN Coatings on Inconel and Steel Substrates after Thermal Treatments. **2022**, 15, 8605 ○
- 487 A Lightweight AlTiVNb High-Entropy Alloy Film with High Strength-Ductility Synergy and Corrosion Resistance. **2022**, 15, 8568 2
- 486 Discrepancies in Nanoindentation Hardness and Modulus with a Berkovich, a Cube-corner, and a Conical Tip in a Cu(In,Ga)Se₂ Light-Absorption Layer. **2022**, 60, 884-891 ○
- 485 Experimental Investigation of the High-Rate Interaction of a Cloud of Microparticles with a Metal with the Use of a Rail Accelerator. **2022**, 95, 1659-1671 ○
- 484 Development and biomaterial characterization of Mg-Li-Zn-Ca alloys. **2022**, 33, 104999 ○
- 483 Ultra-High Loading of Coal-Derived Flash Graphene Additives in Epoxy Composites. 2200640 ○
- 482 The Influence of Ethynyl In-Chain Crosslinkers on the Properties of 6FDA-Based Polyimides. **2023**, 16, 169 ○
- 481 Pop-in phenomenon at nanoindentation and fracture toughness of two-phase ceramic composites. **2022**, ○
- 480 Tribological behavior of silicon and oxygen co-doped hydrogenated amorphous carbon coatings on polyether ether ketone. **2022**, 109650 ○
- 479 Hardness and indentation modulus of human enamel and dentin. ○
- 478 Characterization of cyclic dynamic and creep responses of pure aluminum by instrumented indentation. **2023**, 53, 214605 ○
- 477 Antioxidant activity of limonene modified cellulose pulp fiber-poly(lactic acid) (PLA) composites. ○
- 476 The performance of hybridized nano-ceramics on the microstructure and corrosion of Mg alloy in an auto-engine cooling system. **2022**, ○
- 475 Dislocation-activated Crystallographic Anisotropy in Bulk Nanocrystalline Metals. **2023**, 62, 19-23 ○
- 474 Structure, Mechanical and Thermal Properties of TiSiWN Coatings. **2023**, 13, 119 ○
- 473 Preparation and characterization of 3D printed bone scaffold for ibuprofen delivery. **2022**, 72, 661-673 ○
- 472 Measurements of the Hardness and Young's Modulus of the Nonlinear Optical Crystals BaGa₄S₇ and BaGa₄Se₇. **2022**, ○
- 471 Deformation mechanism and mechanical properties of TiN/ZrN nanolaminates by nanoindentation: Effect of layer thickness and temperature. **2023**, 129230 ○

- 470 Nanoindentation Study of the Viscoelastic Properties of Human Triple Negative Breast Cancer Tissues: Implications for Mechanical Biomarkers. **2023**, ○
- 469 Effects of double pulse welding on microstructure, texture, and fatigue behavior of DP590 steel resistance spot weld. ○
- 468 Cracking Behavior of Gd₂Zr₂O₇/YSZ Multi-Layered Thermal Barrier Coatings Deposited by Suspension Plasma Spray. **2023**, 13, 107 ○
- 467 Anomalous Mechanical Responses in Flash-Processed Ceramics. **2023**, 70, 30-35 ○
- 466 Poly(hexylene vanillate): Synthetic Pathway and Remarkable Properties of a Novel Aliphatic Lignin-Based Polyester. 1
- 465 Optimizing the flatness of 4H silicon carbide wafers by tuning the sequence of lapping. ○
- 464 A Multiscale Topographical Surface Analysis of High Entropy Alloys Coatings by Laser Melting. **2023**, 16, 629 ○
- 463 Silver/reduced graphene oxide nanocomposite materials synthesized via a green molecular level mixing. 002199832311521 ○
- 462 Deformation Behavior, Recrystallization Kinetics, Strengthening Mechanisms and Residual Stress in Al-Mg-Si-Ag Alloy Processed by Equal-Channel Angular Pressing. ○
- 461 Mechanical Properties, Biocompatibility and Antibacterial Behaviors of TaO_{0.2}N_{0.8} and TaO_{0.2}N_{0.8}-Ag Nanocomposite Thin Coatings. **2023**, 13, 88 ○
- 460 Determining Spatial Variability of Elastic Properties for Biological Samples Using AFM. **2023**, 14, 182 1
- 459 The influence of shape and matrix size on the mechanical properties of the 2D epoxy thin film by Monte Carlo simulation method. **2023**, 13, 015209 1
- 458 High strain rate nanoindentation testing: Recent advancements, challenges and opportunities. **2023**, 101054 ○
- 457 Positron annihilation studies of Eurofer97/ODS steels after helium ion implantation. **2023**, 101369 ○
- 456 Reactive HiTUS TiNbVTaZrHF-Nx Coatings: Structure, Composition and Mechanical Properties. **2023**, 16, 563 ○
- 455 Determining role of W⁺ ions in the densification of TiAlWN thin films grown by hybrid HiPIMS/DCMS technique with no external heating. **2023**, 41, 013407 ○
- 454 Intrinsic Mechanical Compliance of 90° Domain Walls in PbTiO₃. 2211906 ○
- 453 Influence of Cu addition and microstructural configuration on the creep resistance and mechanical properties of an Fe-based γ/γ' superalloy. ○

- 452 Phase-Transformation Nanoparticles Synchronously Boosting Mechanical and Electromagnetic Performance of SiBCN Ceramics. ○
- 451 FE-analysis of long-term performance of an epoxy bonded anchor based on nanoindentation and CT-scan. ○
- 450 Comparative evaluation of TiC and/or WC addition on microstructure, mechanical properties, thermal residual stress and reciprocating wear behaviour of ZrB₂/SiC composites. **2023**, 58, 420-442 ○
- 449 Mechanical Properties of 3D Superlattices. **2023**, 303-338 ○
- 448 Nanoprecipitates to Enhance Radiation Tolerance in High-Entropy Alloys. ○
- 447 Correlation of mineral density and elastic modulus of dog dentin using ECT and nanoindentation. **2023**, 147, 111434 ○
- 446 Hot indentation of a FGM-coated thermoelastic half-space by a conical punch: approximated analytical solution of the contact problem. **2023**, 116612 ○
- 445 Characteristics of Ancient Shipwreck Wood from Huaguang Jiao No. 1 after Desalination. **2023**, 16, 510 1
- 444 Nanomechanical characterization of 3D printed cement pastes. **2023**, 105874 ○
- 443 Hybrid deposition of CrD/AlD hard coatings combining cathodic arc evaporation and high power impulse magnetron sputtering. **2023**, 129235 ○
- 442 Gradient characterization of steel-concrete interface at early ages. **2023**, 104941 ○
- 441 Thermal Fatigue Resistance Studies of Multilayer CrN and AlTiN Coatings Deposited on Plasma Nitrided H-13 Hot Work Steel. **2023**, 11, 19 ○
- 440 Effect of Equibiaxial Pre-Stress on Mechanical Properties Evaluated Using Depth-Sensing Indentation with a Point-Sharp Indenter. **2023**, 16, 528 ○
- 439 Effects of excess electrons/holes on fracture toughness of single-crystal Si. **2023**, 133, 035101 ○
- 438 Influence of water and protein content on the creep behavior in dental enamel. **2023**, ○
- 437 Revealing the effect of medium-range structure on silicate glass hardness. **2023**, 7, ○
- 436 Metakaolin-based geopolymer composites modified by epoxy resin and silane: Mechanical properties and organic-inorganic interaction mechanism. **2023**, 232, 106767 ○
- 435 Effects of Y addition on the microstructures and mechanical behavior of ZrO_xNy/V₂O₃-Y nano-multilayered films. **2023**, 864, 144555 ○

434	Effect of cold working on the rate sensitivity in high entropy lamellar CoCrFeNi(Nb /Ta) eutectic composites. 2023 , 864, 144557	○
433	Characterization of microstructures and micromechanical properties of naturally generated rust layer in 60-year old reinforced concrete. 2023 , 366, 130203	○
432	Combinatorial experiments for discovering Al-C thin films with high strength and ductility. 2023 , 161, 103515	○
431	Multi-phase (Zr,Ti,Cr)B ₂ solid solutions: Preparation, multi-scale microstructure, and local properties. 2023 , 12, 414-431	○
430	A comparative study of nanolaminate CrN/Mo ₂ N and CrN/W ₂ N as hard and corrosion resistant coatings. 2023 , 455, 129209	○
429	Effect of reinforcement types on the ball milling behavior and mechanical properties of 2024Al matrix composites. 2023 , 23, 268-283	○
428	Nanoindentation study on room-temperature creep behavior of Ir ₃₃ Ni ₂₈ Ta ₃₉ bulk metallic glass. 2023 , 603, 122132	○
427	Indentation size effect: an improved mechanistic model incorporating surface undulation and indenter tip irregularity. 2023 , 23, 143-153	○
426	Estimation of elastic modulus, fracture toughness and strength of 47.5B-derived bioactive glass-ceramics for bone scaffold applications: a nanoindentation study. 2023 , 335, 133783	1
425	Investigation of mechanical properties of Al ₃ Zr intermetallics at room and elevated temperatures using nanoindentation. 2023 , 154, 107825	○
424	Investigation on diffusion characteristics and mechanical properties of Ti ₂ Zr system. 2023 , 154, 107794	○
423	Microstructure and properties of La ₂ O ₃ -doped tungsten-based bulk material and its densification mechanism during spark plasma sintering process. 2023 , 188, 113420	○
422	Strain-hardening alkali-activated fly ash/slag composites with ultra-high compressive strength and ultra-high tensile ductility. 2023 , 165, 107075	3
421	Spark plasma sintering of Nb/Ti ₃ Al(Si)C ₂ -TiC laminated composites. 2023 , 27, 101673	○
420	Ion irradiation induced softening in Cr ₂ AlC MAX phase. 2023 , 939, 168660	○
419	Indenting glasses with indenters of varying stiffness and sharpness. 2023 , 603, 122111	○
418	Size-dependent microstructural evolution and mechanical properties of crystalline/amorphous high-entropy alloy nanostructured multilayers: Cu/FeCoCrNiBSi vs Ni/FeCoCrNiBSi. 2023 , 246, 118706	○
417	The integration of 3D technologies and finite element analysis (FEA) for the restoration of an ancient terra sigillata plate. 2023 , 28, e00260	○

- 416 Study on the elastoplastic deformation behavior and dislocation evolution of 4H-SiC film. **2023**, 605, 127082 ○
- 415 The impact of structure and temperature on the mechanical properties and radiopacity of Ta-W coatings for tiny endovascular medical implants. **2023**, 297, 127342 ○
- 414 Investigation of mechanical properties of C70 nanowhiskers through bending and nanoindentation. **2023**, 10, 100246 ○
- 413 Numerical and experimental crossed analysis of coated nanostructures through nanoindentation. **2023**, 245, 108091 ○
- 412 Effect of abrasives' characteristics on brake squeal noise generation. **2023**, 518-519, 204618 ○
- 411 Mechanical characterization of thin films via constant strain rate membrane deflection experiments. **2023**, 173, 105209 ○
- 410 Microstructure and micromechanical properties of interfacial transition zone in green recycled aggregate concrete. **2023**, 66, 105860 ○
- 409 Structure-property correlation of thermally activated nano-size phase change material in the cementitious system. **2023**, 66, 105871 ○
- 408 Dynamic response characteristics of coral reef sand concrete under impact loading. **2023**, 66, 105847 ○
- 407 Amorphous silicon carbonitride (a-SiCN) thin film coatings by remote plasma chemical vapor deposition using organosilicon precursor: Effect of substrate temperature. ○
- 406 Synthesis and characterization of spark plasma sintered zirconia and ferrotitanium reinforced hybrid aluminium composite. ○
- 405 Effect of Vacuum Heat Treatment on Larch Earlywood and Latewood Cell Wall Properties. **2023**, 14, 43 ○
- 404 Sliding Wear Resistance of Borided AISI 4140 Steel. 1
- 403 An Improved Method for Determining Residual Stresses in Thin Hard Coatings. **2022**, 51, S28-S35 ○
- 402 Additive Manufacturing of Dense Ti6Al4V Layer via Picosecond Pulse Laser. **2023**, 16, 324 ○
- 401 Evaluating the Mechanical Properties of Dense Hybrid Aerosol Deposition Alumina Coatings Using the Nanoindentation Method. ○
- 400 The Influence of High-Temperature Helium and the Amount of Revert Material on the Material Properties of Inconel 738. **2023**, 13, 45 ○
- 399 Influence of the Glassy Fraction Surface of a ZrCoAlAg Ribbon Alloy on the Bioactive Response to Simulated Body Fluid and Its Effect on Cell Viability. **2023**, 13, 55 ○

- 398 High-throughput determination of mechanical and diffusion properties of TiAlBe alloys. **2022**, 32, 3963-3972 ○
- 397 Characterising AlTiN coating and assessing its performance during Ti-6Al-4V milling. **2013**, 33, 9-15 ○
- 396 Incorporating Ethylene Oxide Functionalized Inorganic Particles to Solid Polymer Electrolytes for Enhanced Mechanical Stability and Electrochemical Performance. 2200125 ○
- 395 Adapted Schmidt Hardness Testing on Large Rock Samples—Anfanar-South Quarry Case Study. **2023**, 15, 2058 ○
- 394 3D printed poly(lactic acid)-based nanocomposite scaffolds with bioactive coatings for tissue engineering applications. **2023**, 58, 2740-2763 ○
- 393 Enhanced Surface Properties of the Al_{0.65}CoCrFeNi High-Entropy Alloy via Laser Remelting. **2023**, 16, 1085 1
- 392 Tunable Hybridized Morphologies Obtained through Flash Joule Heating of Carbon Nanotubes. ○
- 391 Effects of Thermal Treatment on the Mechanical Properties of Bamboo Fiber Bundles. **2023**, 16, 1239 ○
- 390 Comparative Material and Mechanical Properties among Cicada Mouthparts: Cuticle Enhanced with Inorganic Elements Facilitates Piercing through Woody Stems for Feeding. **2023**, 12, 207 ○
- 389 Structure-Property Relationship in High-Strength Aluminum Alloys/Stainless Steel Brazed Joints. **2023**, 13, 242 ○
- 388 Nanoindentation Derived Mechanical Properties of TiN Thin Film Deposited Using Magnetron Sputtering Method. **2023**, 245-254 ○
- 387 Wear Mechanism of Superhard Tetrahedral Amorphous Carbon (ta-C) Coatings for Biomedical Applications. 2202370 1
- 386 Effect of Heat Treatment on the Mechanical and Tribological Properties of Dual-Reinforced Cold-Sprayed Al Coatings. **2023**, 7, 32 ○
- 385 Application of Ecuadorian Ferrotitaniferous Sands in Reinforcing Epoxy Composites. **2023**, 148-158 ○
- 384 Rational positioning of 3D printed micro-bricks to realize high-fidelity, multi-functional soft-hard interfaces. ○
- 383 Solving Strength-Toughness Dilemma in Superhard Transition-Metal Diborides via a Distinct Chemically Tuned Solid Solution Approach. **2023**, 6, ○
- 382 A universal adhesive containing copper nanoparticles improves the bonding and mechanical properties of resin cement-root dentin interface: an in vitro study. 1-17 ○
- 381 Non-equimolar Cantor high entropy alloy fabrication using metal powder cored wire arc additive manufacturing. **2023**, 100124 ○

- 380 Mammalian tooth enamel functional sophistication demonstrated by combined nanotribology and synchrotron radiation FTIR analyses. **2023**, 26, 105679 1
- 379 Effect of ultrasonic vibration on microstructure and mechanical properties of Mg98Y1.0Ni0.5Al0.5 alloy containing LPSO structure. **2023**, 33, 59-66 0
- 378 Effect of indentation rate on deformation behavior and mechanical properties of FeO/Fe is simulated based on molecular dynamics. **2023**, 129, 0
- 377 Fabrication and Characterization of Carbon Nanotube/Bismaleimide Nanocomposite Laminates with Ultrahigh Nanofiber Volume Fraction. **2023**, 0
- 376 Creep behavior of graphene oxide reinforced cement composites: Experiments, numerical simulations, and prediction models. 0
- 375 Flexible Optical Waveguides in Heterocyclic Schiff Base Self-Assembled Hydrogen-Bonded Solvates. 0
- 374 A novel biomedical TiN-embedded TiO₂ nanotubes composite coating with remarkable mechanical properties, corrosion, tribocorrosion resistance, and antibacterial activity. **2023**, 0
- 373 An Insight into the Mechanical and Fracture Characterization of Minerals and Mineral Interfaces in Granite Using Nanoindentation and Micro X-Ray Computed Tomography. 0
- 372 Multi-Parametric Exploration of a Selection of Piezoceramic Materials for Bone Graft Substitute Applications. **2023**, 16, 901 0
- 371 Toward Material Property Extraction from Dynamic Spherical Indentation Experiments on Hardening Polycrystalline Metals. **2023**, 13, 276 0
- 370 Metasurface-Enabled Holographic Lithography for Impact-Absorbing Nano-Architected Sheets. 2209153 0
- 369 Fabrication and Characterization of Carbon Nanotube/Silicon Carbide Nanocomposite Laminates. **2023**, 0
- 368 Study on the Wood Characteristics of the Chinese Ancient Ship Luoyang I. **2023**, 16, 1145 0
- 367 Understanding Lithium Dendrite Suppression by Hybrid Composite Separators: Indentation Measurements Informed by Operando X-ray Computed Tomography. 0
- 366 Improving the Surface Properties of an API 5L Grade B Pipeline Steel by Applying the Boriding Process. Part I: Kinetics and Layer Characterization. **2023**, 13, 298 2
- 365 Chemo-mechanical-microstructural coupling in the tarsus exoskeleton of the scorpion *Scorpio palmatus*. **2023**, 0
- 364 Insight into the mechanism underlying modification of *Neosinocalamus affinis* by hygrothermal treatment. **2023**, 0
- 363 Characterization of the tribologically relevant cover layers formed on copper in oxygen and oxygen-free conditions. 0

- 362 Deep learning based nanoindentation method for evaluating mechanical properties of polymers. **2023**, 246, 108162 ○
- 361 Development of a high strength, low density and corrosion resistant novel FeCrMoNb_{1.5}Ti_{0.5} complex concentrated alloy. **2023**, 35, 105521 ○
- 360 Holding time effect on mechanical properties and protrusion behaviors of through silicon via copper under various annealing processes. **2023**, 158, 107353 ○
- 359 The anisotropy dependence of deformation mechanism of cleavage planes in β -Ga₂O₃ single crystal. **2023**, 158, 107357 ○
- 358 Dense and hard TiWC protective coatings grown with tungsten ion irradiation using WC-HiPIMS/TiC-DCMS co-sputtering technique without external heating. **2023**, 618, 156639 ○
- 357 The effect of kink-like defects on the twin boundaries of nanotwinned Ta under nanoindentation. **2023**, 618, 156659 ○
- 356 A high Z² structure of an organic salt with unusually high phase stability, nanoindentation, and mechano and vapo-fluorochromism. ○
- 355 Interfacial Nanoblisters Formed in Water Serving as Freestanding Platforms for Measuring Elastic Moduli of Polymeric Nanofilms. **2023**, 23, 3078-3084 ○
- 354 Surface Modified β -Ti-18Mo-6Nb-5Ta (wt%) Alloy for Bone Implant Applications: Composite Characterization and Cytocompatibility Assessment. **2023**, 14, 94 ○
- 353 NIR-Triggered High-Efficiency Self-Healable Protective Optical Coating for Vision Systems. **2023**, 15, 8510-8520 ○
- 352 Microstructural Evolution and Mechanical Performance of Two Joints of Medium-Mn Stainless Steel with Low- and High-Alloyed Steels. **2023**, 16, 1624 ○
- 351 Tribological Properties of Diamond-Like Carbon, TiAlN, and Diamond-Like Carbon/TiAlN Coatings Deposited on Carburized 18CrNi4A Steel for Heavy-Duty Aerospace Transmission Components. ○
- 350 In situ high-temperature 3D imaging of the damage evolution in a SiC nuclear fuel cladding material. **2023**, 227, 111784 ○
- 349 Evaluation of the Selected Mechanical and Aesthetic Properties of Experimental Resin Dental Composites Containing 1-phenyl-1,2 Propanedione or Phenylbis(2,4,6-trimethylbenzoyl)-phosphine Oxide as a Photoinitiator. **2023**, 24, 5573 ○
- 348 Mechanical, Oxidative Properties, and Wear Behaviors of CrAlSiN Coatings Applied on Cutting Tools. **2023**, 74, 156-162 ○
- 347 Thermo-magneto-mechanical properties of near stoichiometric Ni₂MnGa (Mn > Ga) thin films deposited by radio-frequency magnetron sputtering on Si substrate. **2023**, 768, 139718 ○
- 346 Microstructures and properties of as-cast AlCrFeMnV, AlCrFeTiV, and AlCrMnTiV multi-principal element alloys. **2023**, 133, 104901 ○
- 345 Rapid Conversion of Perhydropolysilazane into Thin Silica Coating at Low Temperature. ○

- 344 Effects of the substrate state beneath the coating-substrate interface on fatigue properties of micro-arc oxidation coated 6082-T6 aluminum alloy. **2023**, 457, 129274 ○
- 343 Polyvinyl-alcohol-based color resist for low-temperature color-filter production. **2023**, 77, 102393 ○
- 342 High Resolution Patterning of Organic-Inorganic Photoresins for Tungsten and Tungsten Carbide Microstructures. ○
- 341 Waterborne polyurethane via encapsulated blocked isocyanate crosslinker for 1 K clearcoats. **2023**, 177, 107408 ○
- 340 Optical Multicoating Using Low-Refractive-Index SiO₂ Optical Thin Films Deposited by Sputtering and Electron Beam Evaporation. **2023**, 139824 ○
- 339 The characterization of wear-causing particles and silica sand in particular. **2023**, 204872 ○
- 338 The effect of heat treatment on fatigue response of laser powder bed fused Al-Cu-Mg-Ag-TiB₂ (A20X) alloy. **2023**, 106009 ○
- 337 Irradiation effects on binary tungsten alloys at elevated temperatures: Vacancy cluster formation, precipitation of alloying elements and irradiation hardening. **2023**, 229, 111899 ○
- 336 Surface hardening through oxygen diffusion in niobium: The defining role of stress inhomogeneity in tensile embrittlement. **2023**, 870, 144883 ○
- 335 Influence of ceramic reinforcement characteristics on the microstructure and wear behavior of NiTi matrix composites. **2023**, 28, 101726 ○
- 334 Ion kinetic energy- and ion flux-dependent mechanical properties and thermal stability of (Ti,Al)N thin films. **2023**, 250, 118864 ○
- 333 Application of nanoindentation technique in mechanical characterization of organic matter in shale: Attentive issues, test protocol, and technological prospect. **2023**, 113, 204966 ○
- 332 Influence of Si and Ta mixed doping on the structure, mechanical and thermal properties of Ti Al N coatings. **2023**, 461, 129428 ○
- 331 Calibration of machine platform nonlinearity in Instrumented Indentation Test in the macro range. **2023**, 81, 145-157 ○
- 330 Degradation Damage of Stress Corrosion in Epoxy Zinc-Rich Coating/Steel Substrate Systems. **2023**, 35, ○
- 329 A novel flat indentation test method for obtaining stress-strain relationships of metallic materials based on energy density equivalence. **2023**, 269, 112195 ○
- 328 Role of low-level void swelling on plasticity and failure in a 33 dpa neutron-irradiated 304 stainless steel. **2023**, 164, 103577 ○
- 327 Design and processing of near- β -Ti-Ni-Al alloy with low elastic modulus and enhanced corrosion resistance for orthopedic implants. **2023**, 24, 259-273 ○

- 326 A multi-technique and multi-scale analysis of the thermal degradation of PEEK in laser heating. **2023**, 211, 110282 ○
- 325 Lubrication and anti-wear behavior of duplex annealed nanodiamonds/PEO coating on Ti6Al4V: Functional mechanism of structural transformation. **2023**, 461, 129426 ○
- 324 Enhancing Recycled Aggregate Concrete Using a Three-Stage Mixed Coal Bottom Ash Slurry Coating. **2023**, 35, ○
- 323 A facile strategy and mechanism to achieve biobased bismaleimide resins with high thermal-resistance and strength through copolymerizing with unique propargyl ether-functionalized allyl compound. **2023**, 186, 105570 ○
- 322 Fullerene C60 films on dental implants: Durability study after in vitro short-term exposure. **2023**, 135, 109886 ○
- 321 Dynamic Hardness Evolution in Metals from Impact Induced Gradient Dislocation Density. **2023**, 249, 118807 ○
- 320 Enhancement of impact resistance for low water/binder cementitious composites (LWBCC) based on porous aggregate: From the perspective of macroscopic and microscopic. **2023**, 376, 130952 ○
- 319 Magnesium-based composite by nano-nucleation of $\text{Mg}_{17}\text{Al}_{12}$ using spark plasma sintering route for advanced structural application. **2023**, 24, 1547-1561 ○
- 318 Bonding property between fiber and cementitious matrix: A critical review. **2023**, 378, 131169 ○
- 317 How the micro-mechanical stability of carbides in chromium-rich hardfacings influences the impact-abrasion resistance at elevated temperatures. **2023**, 522, 204693 ○
- 316 Micro-hydroxyapatite reinforced Ti-based composite with tailored characteristics to minimize stress-shielding impact in bio-implant applications. **2023**, 142, 105852 ○
- 315 Effect of carbide orientation during single scratch test in directionally solidified and heat-treated high chromium cast irons. **2023**, 523, 204823 ○
- 314 Influence of non-equilibrium solidification of melt pools and annealing on microstructure formation and mechanical properties of laser powder bed fusion-built Ti6Al4V alloys. **2023**, 873, 144964 ○
- 313 Improved adhesion of cathodic arc PVD AlCrSiN coating on ion-implanted WC-Co substrates. **2023**, 113, 106187 ○
- 312 Bonding mechanisms and micro-mechanical properties of the interfacial transition zone (ITZ) between biochar and paste in carbon-sink cement-based composites. **2023**, 139, 105004 ○
- 311 Predicting micromechanical properties of cement paste from backscattered electron (BSE) images by computer vision. **2023**, 229, 111905 ○
- 310 Structure and mechanical properties investigation of MoSe₂-Ag composite films fabricated by magnetron co-sputtering. **2023**, 945, 169340 ○
- 309 Datasets on the elastic and mechanical properties of hydroxyapatite: A first principle investigation, experiments, and pedagogical perspective. **2023**, 48, 109075 ○

- 308 Fracture study of glass with bubbles: Multiscale finite element method and experimental facts. **2023**, 28, 101746 ○
- 307 Research on irrecoverable creep of the hardened cement paste under different relative humidity. **2023**, 69, 106276 ○
- 306 Multi-scale analysis framework for predicting tensile strength of cement paste by combining experiments and simulations. **2023**, 139, 105006 ○
- 305 Robust high-performance self-lubrication of nanostructured Mo-S-Cu-B film. **2023**, 623, 157076 ○
- 304 Capturing the softening in T91 steel annealed with molten LBE through interfacial gradient plasticity. **2023**, 35, 105719 ○
- 303 Linker engineering of larger POSS-based ultra-low-k dielectrics toward outstanding comprehensive properties. **2023**, 14, 100146 ○
- 302 Hard yet tough thermodynamics-driven nanostructured (AlCrNbSixTi)N multicomponent nitride hard coating. **2023**, 947, 169645 ○
- 301 Mechanical properties and thermal stability of nanostructured thermoelectric materials on the basis of PbTe and GeTe. **2023**, 946, 169364 ○
- 300 Weibull modulus of a novel mixture of natural hydroxyapatite materials produced from biowastes. **2023**, 18, 100394 ○
- 299 Physico-chemical variations of shale with artificial maturation: In the presence and absence of water. **2023**, 225, 211675 ○
- 298 Gas nitriding behavior of refractory metals and implications for multi-principal element alloy design. **2023**, 947, 169568 ○
- 297 Influence of molten-salt-synthesised high-entropy (V_{0.2}Cr_{0.2}Mo_{0.2}W_{0.2}Ni_{0.2})B powder characteristics on superhard mechanism during spark plasma sintering. **2023**, 947, 169618 ○
- 296 Heterogeneity in tribologically transformed structure (TTS) of Ti₆Al₄V under fretting. **2023**, 522, 204680 ○
- 295 Microstructures, mechanical properties, and irradiation tolerance of the Ti₂Zr₁Nb₁Mo refractory high-entropy alloys. **2023**, 157, 107873 ○
- 294 Investigation of mechanical and corrosion properties of light and high hardness cast AlTiVCrCu_{0.4} high entropy alloy. **2023**, 200, 112878 ○
- 293 Research on the surface characterization, corrosion and bioactivity of nano-featured tantalum coating on selective electron beam melted Ti₆Al₄V alloy. **2023**, 946, 169351 ○
- 292 Grain size effect on the mechanical properties of nanocrystalline magnesium aluminate spinel. **2023**, 251, 118881 ○
- 291 Mechanical and microstructural analysis of tungsten exposed in JET deuterium plasmas. **2023**, 35, 101420 ○

- 290 Revealing the structure-property relationships of amorphous carbon tribofilms on platinum-gold surfaces. **2023**, 522, 204690 ○
- 289 Interdiffusion behaviors and mechanical properties of Hf-X (X=Nb, Ta) binary systems. **2023**, 81, 102548 ○
- 288 Design of Fe_{36.29}Cr_{28.9}Ni_{26.15}Cu_{4.17}Ti_{1.67}V_{2.48}Co_{0.46} HEA using a new criterion based on VEC: Microstructural study and multiscale mechanical response. **2023**, 35, 105681 ○
- 287 Cr-containing diamond-like carbon coatings deposited on 316 stainless steel substrates: Characterization and interfacial fracture toughness measurements. **2023**, 462, 129462 ○
- 286 Predicting the bond strength between steel wire and mortar based on interfacial porosity and shrinkage. **2023**, 68, 106188 ○
- 285 Measurement of local mechanical properties for Cr-coated accident tolerant fuel cladding. **2023**, 579, 154407 ○
- 284 Annealing of Cu nanolayers on glass: Structural, mechanical and thermodynamic analysis. **2023**, 212, 111991 ○
- 283 M2 coating prepared by ultra-high speed laser cladding: Microstructure and interfacial residual stress. **2023**, 35, 105638 ○
- 282 Influence of deposition parameters on microstructure and mechanical properties of chemical vapor deposited Ti_{1-x}Al_xN coatings. **2023**, 113, 106203 ○
- 281 Recycling of arsenic residue and waste soda-lime silicate glass via vitrification. **2023**, 609, 122300 ○
- 280 Multi-scale experimental investigation and analytical micro-mechanical modeling to determine Young's modulus of alkali-activated slag concrete. **2023**, 383, 131272 ○
- 279 Iron aluminides: A step towards sustainable high-temperature wear resistant materials. **2023**, 523, 204754 ○
- 278 Evaluation of the wear-resistance of DLC-coated hard-on-soft pairings for biomedical applications. **2023**, 523, 204728 ○
- 277 Irradiation response of liquid-phase sintered SiC assisted with Y₂O₃-Al₂O₃ sintering additive at 300°C up to 100 dpa. **2023**, 579, 154405 ○
- 276 Investigating the effect of operating temperature on the tribo-mechanical behavior of cold rolled superelastic nickel titanium alloy. **2023**, 523, 204729 ○
- 275 Ti6Al4V coatings on titanium samples by sputtering techniques: Microstructural and mechanical characterization. **2023**, 952, 170018 ○
- 274 Corrosion and corrosive wear of AlCrFeCoNi and Co-free AlCrFeNi-Ti_x (x = 0-1.5) high-entropy alloys in 3.5 wt % NaCl and H₂SO₄ (pH = 3) solutions. **2023**, 523, 204765 ○
- 273 Behavior of Cu-Y₂O₃ and CuCrZr-Y₂O₃ composites before and after irradiation. **2023**, 539, 73-78 ○

- 272 Transformation of borides in directionally solidified nickel base superalloy and its mechanical response. **2023**, 952, 169996 ○
- 271 Interface characterization and intermetallic compounds formation mechanism of V-4Cr-4Ti/316SS laser welded joints. **2023**, 193, 113658 ○
- 270 Which crystal structure is present on the surface of Ti₂CrAl compound - a deduction from electronic structure measurements and calculations. **2023**, 733, 122288 ○
- 269 Mechanistic origin of abnormal annealing-induced hardening in an AlCoCrFeNi_{2.1} eutectic multi-principal-element alloy. **2023**, 252, 118905 ○
- 268 Influence of solution-hardening on the mechanical properties and wear resistance of copper alloys. **2023**, 523, 204869 ○
- 267 Simulation and dimensional analysis of instrumented dynamic spherical indentation of ductile metals. **2023**, 251, 108333 ○
- 266 Shedding new light on the dislocation-mediated plasticity in wurtzite ZnO single crystals by photoindentation. **2023**, 156, 206-216 ○
- 265 Synthesis of high-entropy carbides from multi-metal polymer precursors. **2023**, 43, 4233-4243 ○
- 264 Effect of ECR-glass additions in the mechanical and tribological properties of TiO₂ reinforced polyimide composites. **2023**, 62, 547-553 ○
- 263 Strength determination for rough substrate-coating interfaces with three-dimensional defect structure. **2023**, 112, 106149 ○
- 262 Effects of amino acids on the multiscale properties of carbonated wollastonite composites. **2023**, 374, 130816 ○
- 261 A microstructure-based multiscale approach to predict the formability of multiphase steels. **2023**, 108398 ○
- 260 Utilising H/E to predict fretting wear performance of DLC coating systems. **2023**, 108524 ○
- 259 Thermal and ablation properties of a high-entropy metal diboride: (Hf_{0.2}Zr_{0.2}Ti_{0.2}Ta_{0.2}Nb_{0.2})B₂. **2023**, ○
- 258 The scratch characteristics of laser nitrided Zr-based metallic glass surface. **2023**, 155, 107832 ○
- 257 Investigating the time- and space- dependent mechanical, physical and chemical properties of aged polyethylene gas pipes using nanoindentation tests. **2023**, 24, 3383-3398 ○
- 256 Microstructure, mechanical properties, and oxidation behavior of arc-evaporated Cr_{100-x}Al_x coatings with various Cr/Al ratios. **2023**, 49, 16412-16421 ○
- 255 Thermally induced planar defect formation in sputtered V_{1-x}MoxB₂-films. **2023**, 229, 115365 ○

- 254 Processing and properties of a graphene-reinforced superhydrophobic siloxane. **2023**, 229, 111856 ○
- 253 Mechanical and creep properties of granitic minerals of albite, biotite, and quartz at elevated temperature. **2023**, 34, 100465 ○
- 252 On the mechanical behavior of the sintered Nd-Fe-B permanent magnet during diamond scratching. **2023**, 94, 79-93 ○
- 251 Effect of hydrogen on nanomechanical properties of Inconel 625 studied using in-situ electrochemical nanoindentation technique. **2023**, 948, 169742 ○
- 250 Parameter identification and pileup behavior of TiAl alloy through nanoindentation and crystal plasticity simulation. **2023**, 948, 169743 ○
- 249 High versus low energy ion irradiation impact on functional properties of PLD-grown alumina coatings. **2023**, 540, 24-29 ○
- 248 Influence of cooling rate on the microstructure and room temperature mechanical properties in the refractory AlMo_{0.5}NbTa_{0.5}TiZr superalloy. **2023**, 949, 169871 ○
- 247 Fatigue of Light Alloys. **2023**, ○
- 246 Improving high-temperature wear resistance of arc-evaporated AlCrN coatings by Mo alloying. **2023**, 456, 129253 ○
- 245 Powder metallurgy and hardness of the LI-10Mg alloy reinforced with carbon nanotubes. **2022**, 54, 387-399 ○
- 244 Porosity effect on the mechanical properties of nano-silver solder. **2023**, 34, 165701 ○
- 243 Novel silicon oxycarbide/spodumene glass-ceramic composites with tailored thermal expansion coefficient. **2023**, 604, 122155 ○
- 242 Evolution of morphology, microstructure and phase composition of zirconia thin coating on copper as a result of low energy high current pulsed electron beam irradiation. **2023**, 456, 129257 ○
- 241 The structural and dynamic nanohardness properties of yttrium substituted layered (La, Ca)₃Mn₂O₇ manganites. **2023**, 34, ○
- 240 Nano-mechanical and nano-tribological characterization of Ni-Co-BN nano-composite coating for bearing applications. **2023**, 180, 108281 ○
- 239 Nanoindentation deformation and fracture mechanisms of SiC/SiO₂ thermally oxidized in plasma wind tunnel. **2023**, 768, 139715 ○
- 238 Martens hardness of Constantan thin films on (100) Si wafer: Improvement in contact area function in nanoindentation. **2023**, 768, 139712 ○
- 237 Mechanical properties and strengthening mechanism of Ni/Al nanolaminates: Role of dislocation strengthening and constraint in soft layers. **2023**, 226, 111632 ○

- 236 Non-isocyanate Polyurethane Coating with High Hardness, Superior Flexibility, and Strong Substrate Adhesion. **2023**, 15, 5998-6004 1
- 235 Ultra-superior mechanical properties of multilayer graphene nanosheets reinforced carbon-graphite materials. **2023**, 133, 109719 0
- 234 Thin films sputter-deposited from EUROFER97 in argon and deuterium atmosphere: Material properties and deuterium retention. **2023**, 34, 101375 0
- 233 Solid-State Field-Assisted Ion Exchange (Ag → Na) in Soda-Lime Float Glass: Tin Versus Air Side. 2201572 0
- 232 Effect of Sintering Temperature on Mechanical Behaviors of an Oxide Fiber-Reinforced Oxide Matrix Composite. **2023**, 25, 0
- 231 Zinc finger protein 521 attenuates osteoarthritis via the histone deacetylases 4 in the nucleus. **2022**, 13, 14489-14502 0
- 230 Investigation of upward speed and thickness effects on optical and mechanical properties of hard transparent thin films deposited on polycarbonate substrate. **2023**, 177, 107405 0
- 229 Comparative study on microstructure and properties of nanocrystal and amorphous WSiB coatings. **2023**, 210, 111871 0
- 228 Cyclic Nanoindentation for Local High Cycle Fatigue Investigations: A Methodological Approach Accounting for Thermal Drift. 2201676 0
- 227 High-temperature sintering resistance of novel NdYbZr₂O₇ thermal barrier coating. **2023**, 456, 129275 0
- 226 Effects of gradient structure and modulation period on mechanical performance and thermal stress of TiN/TiSiN multilayer hard coatings. **2023**, 866, 144696 0
- 225 Adiabatic shear localization induced by dynamic recrystallization in an FCC high entropy alloy. **2023**, 162, 103550 0
- 224 Fe₂O₃/Fe₃O₄@GO nanosheets boost the functionality of Ni-P thin film deposited by electroless method. **2023**, 456, 129288 0
- 223 Microstructure, Mechanics, and Chloride Diffusion of Three-Dimensional Graphene Reinforced Cement Paste. **2023**, 35, 0
- 222 Probabilistic Modeling for Cementitious Materials Based on Data of Nanoindentation. **2023**, 13, 416 0
- 221 The Clinical and Skeletal Effects of Long-Term Therapy of Hypoparathyroidism With rhPTH (1-84). **2023**, 38, 480-492 0
- 220 Performance of biocement treatment in improving the interfacial properties of recycled aggregate concrete. **2023**, 369, 130509 1
- 219 Photoinduced Strain in Organometal Halide Perovskites. **2023**, 14, 1343-1353 1

- 218 Low-temperature deposition of Al-rich $(\text{Al}, \text{Cr})_2\text{O}_3$ films by sputtering $\text{Al}_x\text{Cr}_{95-x}(\text{Al}_2\text{O}_3)_5$ targets. **2023**, 49, 16587-16593 ○
- 217 Advances in the measurement of hardness at high strain rates by nanoindentation. **2023**, 38, 1163-1177 ○
- 216 Analysis of warpage of a flip-chip BGA package under thermal loading: Finite element modelling and experimental validation. **2023**, 271-272, 111947 ○
- 215 Investigation of the wear transition in CoCrMo alloys after heat treatment to produce an HCP structure. **2023**, 518-519, 204649 ○
- 214 Material point simulations as a basis for determining Johnson-Cook hardening parameters via instrumented scratch tests. **2023**, 267, 112146 ○
- 213 Investigation on self-healing performance of asphalt mixture containing microcapsules and survival behaviour of microcapsules. **2023**, 24, ○
- 212 Enhancing the toughness of nano-composite coating for light alloys by the plastic phase transformation of zirconia. **2023**, 163, 103555 ○
- 211 Dexamethasone-doped nanoparticles improve mineralization, crystallinity and collagen structure of human dentin. **2023**, 130, 104447 ○
- 210 Effects of Wax Components and the Cooling Rate on Crystal Morphology and Mechanical Properties of Wax/Oil Mixtures. **2023**, 23, 1422-1433 ○
- 209 Nanoindentation size effects of mechanical and creep performance in Ni-based superalloy. 1-12 ○
- 208 Tuning microstructure and mechanical and wear resistance of ZrNbTiMo refractory high-entropy alloy films via sputtering power. 10, ○
- 207 Changes in the Surface Structure and Properties of Zirconium Upon Exposure to a Low-Energy High-Current Electron Beam. **2023**, 65, 1650-1656 ○
- 206 Effect of Strain Rate on Nano-Scale Mechanical Behavior of A-Plane (112 $\bar{0}$) ZnO Single Crystal by Nanoindentation. **2023**, 14, 404 ○
- 205 Mechanical tensile behaviour of cement paste/aggregate bond exposed to leaching. **2023**, 369, 130592 ○
- 204 Evaluation of stress and elastic energy relief efficiency in a hard coating with a metal interlayer Using TiN/Ti as a model system. **2023**, 41, 023104 ○
- 203 Dense nanocrystalline W alloys: Enhancement of hardness and thermal stability by Al addition. **2023**, 112, 106150 ○
- 202 3D Finite Element Simulations of Indentation Fracture Test of ZrO₂-Ceramics with Taking into Account its Microstructure. **2022**, ○
- 201 Inverse parameter determination for metal foils in multifunctional composites. **2023**, 227, 111711 ○

- 200 Analysis of Mechanical Characteristics of Surface Layers of Nickel with a Sputtered Aluminum Film after Ion-Beam Mixing. **2022**, 67, 677-682 ○
- 199 Bright Lanthanide III Triboluminescence despite Low Photoluminescence, and Dual Triboluminescence and Mechano-Responsive Photoluminescence. 2203139 ○
- 198 Organic Films Synthesized on an Iron Surface in Low-Temperature Plasma of Adamantane. **2022**, 67, 718-724 ○
- 197 Development of Cellulose-Reinforced Polyurethane Coatings: A Novel Eco-Friendly Approach for Wind Turbine Blade Protection. **2023**, 16, 1730 ○
- 196 Unraveling the dispersion mechanism of carbon nanotubes in aluminum powder particles during high energy ball milling by FIB-TEM study. **2023**, 419, 118339 ○
- 195 Microstructure and Mechanical Properties of TiAl₃/TiAlN Coatings Alloyed with Si. ○
- 194 Tribological Properties and Cutting Performance of AlTiN Coatings with Various Geometric Structures. **2023**, 13, 402 1
- 193 Electron microscope loading and in situ nanoindentation of water ice at cryogenic temperatures. **2023**, 18, e0281703 ○
- 192 Nanoindentation of embedded particles. **2023**, 38, 1694-1705 ○
- 191 Superior oxidation resistance of the chemically complex but structurally simple Ti-Al-Ta-Ce-Si-La-B-nitride. **2023**, 227, 111722 ○
- 190 Improved thermal stability and irradiation tolerance of oxide dispersion strengthened chromium coatings. **2023**, 577, 154328 ○
- 189 Construction of CNC@SiO₂@PL Based Superhydrophobic Wood with Excellent Abrasion Resistance Based on Nanoindentation Analysis and Good UV Resistance. **2023**, 15, 933 ○
- 188 The impact of surface scratches on the corrosion behavior of nanocrystalline high entropy alloy coatings: Electrochemical experiments and first-principles study. **2023**, 31, 101767 ○
- 187 Improvement of the mechanical and tribological behaviors by Ti-C interlayer for diamond-like carbon films on nitrile butadiene rubber. **2023**, 290, 116289 ○
- 186 Composition, structure, and mechanical properties of cathodic arc deposited Cr-rich Cr-N coatings. **2023**, 41, 023105 ○
- 185 Irradiation tolerance enhanced by coherent interfaces of FCC/BCC HEA multilayers. **2023**, 457, 129338 ○
- 184 Nanoindentation method and its application to light-weight metallic materials. **2022**, 72, 669-679 ○
- 183 Developmental biomechanics and age polyethism in leaf-cutter ants. ○

- 182 Hydrated behavior of multilayer polyelectrolyte-nanoclay coatings on porous materials and demonstration of shape memory effect. **2023**, 458, 129335 ○
- 181 Load bearing capability of three-units 4Y-TZP monolithic fixed dental prostheses: An innovative model for reliable testing. **2023**, 227, 111751 ○
- 180 Powder Metallurgy Processing and Characterization of the β Phase Containing Multicomponent Al-Cr-Fe-Mn-Mo Alloy. **2023**, 2, 44-54 ○
- 179 Microstructure and wear properties of powder-pack borided Ti6Al4V alloy. **2023**, 23, 4032-4043 ○
- 178 A unified approach to quantify the material and geometrical effects in indentation size effect. **2023**, 38, 1740-1755 ○
- 177 Deterioration of Microstructures and Properties in Ancient Architectural Wood from Yingxian Wooden Pagoda (1056 AD) during Natural Aging. **2023**, 14, 393 1
- 176 Comparison of three different deconvolution methods for analyzing nanoindentation test data of hydrated cement paste. **2023**, 138, 104990 ○
- 175 Impact of Particle Addition and Aging on the Friction Stir Processed Magnesium Matrix Surface Composite Properties. ○
- 174 Variation in Juvenile Long Bone Properties as a Function of Age: Mechanical and Compositional Characterization. **2023**, 16, 1637 ○
- 173 In-situ micro-cantilever bending studies of a white etching layer thermally induced on rail wheels. **2023**, 869, 144805 ○
- 172 Large Piezoelectric Response in a Metal-Free Three-Dimensional Perovskite Ferroelectric. **2023**, 145, 4892-4899 ○
- 171 Micro-mechanical properties of Cu modified by various carbon nanotubes and the correlation with the nano/micro-structures. ○
- 170 The Significantly Enhanced Mechanical and Tribological Performances of the Dual Plasma Nitrided and PVD Coated Ti6Al4V Alloy. **2023**, 24, 607-619 ○
- 169 Nanoscale Structure-Property Relations in Self-Regulated Polymer-Grafted Nanoparticle Composite Structures. **2023**, 15, 10974-10985 ○
- 168 Reactive metal additive manufacturing: Surface near ZrN metallic glass composite formation and mechanical properties. **2023**, 66, 103457 ○
- 167 Microstructure evolution and wear resistance of nitrogen-strengthened β Fe based alloy fabricated by N_2 pressure sintering. **2023**, 23, 6262-6273 ○
- 166 Tribo-Mechanical Behavior of Films and Modified Layers Produced by Cathodic Arc and Glow Discharge Plasma Nitriding Techniques. **2023**, 13, 430 ○
- 165 Nanoindentation test of a DLC coated high-speed steel substrate using a two-dimensional axisymmetric finite element method. **2023**, 134, 109792 ○

- 164 Development and characterization of agglomerated abrasives based on agro-industrial by-products. **2023**, 20, ○
- 163 Thermally Mendable Self-Healing Epoxy Coating for Corrosion Protection in Marine Environments. **2023**, 16, 1775 ○
- 162 Atomic force microscopy-based indentation of cells: modelling the effect of a pericellular coat. **2023**, 20, ○
- 161 Hardness of nano- and microcrystalline lonsdaleite. **2023**, 122, 081902 ○
- 160 Remarkable plasticity and softness of polymorphic InSe van der Waals crystals. **2023**, ○
- 159 Dry Friction Performances of MoNx Coatings Deposited by HighPower Pulsed Magnetron Sputtering. **2023**, 9, 60 ○
- 158 Seawater sea-sand Engineered Geopolymer Composites (EGC) with high strength and high ductility. **2023**, 138, 104998 ○
- 157 Radio-frequency magnetron sputter deposition of ultrathick boron carbide films. **2023**, 41, 023407 ○
- 156 Mechanical heterogeneities in cured structural wood adhesives. 1-10 ○
- 155 The utilisation of coconut shell ash in production of hybrid composite: Microstructural characterisation and performance analysis. **2023**, 398, 136494 ○
- 154 Evaluation of strength in stainless steel weld joints using ball indentation technique. 1-19 ○
- 153 Development of sustainable ultra-high performance concrete recycling aluminum production waste. **2023**, 371, 130212 ○
- 152 In situ scanning electron microscopy of hydrogen embrittlement by near atmospheric-pressure hydrogen microplasma jet. **2023**, 94, 023707 ○
- 151 Characterization of mechanical properties of five hot-pressed lignins extracted from different feedstocks by microscopy-aided nanoindentation. **2023**, 227, 111765 ○
- 150 Role of Crystal Disorder and Mechanoactivation in Solid-State Stability of Pharmaceuticals. **2023**, ○
- 149 Salinity induced stiffening of drying particulate film and dynamic warping. **2023**, 7, ○
- 148 Improving the Creep Resistance of Hardened Cement Paste through the Addition of Wollastonite Microfibers: Evaluation Using the Micro-Indentation Technique. **2023**, 13, 2933 ○
- 147 Cyclic severe plastic deformation processes. **2023**, ○

- 146 Static and Time-Dependent Plasticity of Monolithic Metal-Organic Frameworks. **2023**, 127, 4749-4758 ○
- 145 Tribological assessment of the SiO₂ coating deposited by sol-gel process toward cutting tool coating. **2023**, 126, 487-503 ○
- 144 Effect of substrate pretreatments on the structure and properties of AlTiN coatings deposited on TiCN-based cermets. **2023**, 770, 139769 ○
- 143 Nanomechanics of minerals: understandings and developments through instrumented nanoindentation techniques. **2023**, 50, ○
- 142 Stability and Mechanical Properties of Darunavir Isostructural Solvates: An Experimental and Computational Study. **2023**, 23, 2905-2915 ○
- 141 Nano-mechanical approach to study the behavior of annealed nanodiamond reinforced epoxy nanocomposites. ○
- 140 Effect of deformation parameters on microstructure evolution, flow softening behavior and nanoindentation properties of Nb₂4Ti₁6Si₁Al₁Fe₅V alloy. **2023**, 870, 144862 ○
- 139 Hybrid octa-silane polyhedral oligomeric silsesquioxane (OS-POSS) optical films prepared by ion beam assisted evaporation. **2023**, 41, 023409 ○
- 138 PET/Graphene Nanocomposite Fibers Obtained by Dry-Jet Wet-Spinning for Conductive Textiles. **2023**, 15, 1245 ○
- 137 Effect of the measurement contact scale on the thermomechanical characterization of biocomposite surfaces. **2023**, 11, 014009 ○
- 136 Structure evolution and mechanical properties of Al-alloyed tantalum diboride films prepared by magnetron sputtering co-deposition. **2023**, 41, 023410 ○
- 135 Effect of Grain Sizes on the Friction and Wear Behavior of Dual-Phase Microstructures with Similar Macrohardness and Composition. **2023**, 13, 533 ○
- 134 Influence of Microstructure on Fracture Mechanisms of the Heat-Treated AlSi10Mg Alloy Produced by Laser-Based Powder Bed Fusion. **2023**, 16, 2006 2
- 133 Deposition processing and surface metrology of MoN_x thin films by design of experiment and single variable (nitrogen flow rate) methods. **2023**, 11, 014011 ○
- 132 Mechanical performance and microstructure of the grade 91 stainless steel produced via Directed Energy deposition laser technique. **2023**, 227, 111804 ○
- 131 Machine learning and experiments: A synergy for the development of functional materials. **2023**, 48, 142-152 ○
- 130 Nanoscratch Testing of 3Al₂O₃/2SiO₂ EBCs: Assessment of Induced Damage and Estimation of Adhesion Strength. **2023**, 6, 664-677 ○
- 129 Synthesis and characterization of metal carbides for nanoindentation tip applications. **2023**, 133, 095107 ○

128	Evaluation of the Wear and Mechanical Properties of Titanium Diboride-Reinforced Titanium Matrix Composites Prepared by Spark Plasma Sintering. 2023 , 16, 2078	1
127	Characterization of Distribution of Microstructure and Micro-mechanical Properties of Nickel-Based Single Crystal Superalloy Within the Shot-Peened Layer.	0
126	Porous beta titanium alloy coated with a therapeutic biopolymeric composite to improve tribomechanical and biofunctional balance. 2023 , 300, 127559	0
125	Learning the right channel in multimodal imaging: automated experiment in piezoresponse force microscopy. 2023 , 9,	1
124	Impact of the Cu Current Collector Grade and Ink Solid Fraction on the Electrochemical Performance of Silicon-Based Electrodes for Li-Ion Batteries. 2201483	0
123	CHARACTERISATION OF MICROMECHANICAL AND TRIBOLOGICAL PROPERTIES OF TITANIUM GRADE 2 AFTER CYCLIC OXIDATION. 2023 , 303, 7-16	0
122	Preventing Disused Bone Loss through Inhibition of Advanced Glycation End Products. 2023 , 24, 4953	0
121	Microwave-assisted debinding of Al ₂ O ₃ parts printed by stereolithography. 2023 , 49, 18343-18352	0
120	Microstructure Design of Powder-Pack Borided AISI 4140 Steel.	0
119	Effects of process parameters on strengthening mechanisms of additively manufactured AlSi10Mg. 2023 , 65, 409-422	0
118	Irradiation hardening and void swelling behaviors of F82H IEA by using dual-ion irradiation. 1-9	0
117	Grinding Burn Detection via Magnetic Barkhausen Noise Analysis Independently of Induction Hardened Depth. 2023 , 16, 2127	0
116	Determining the elastic-plastic properties of materials with residual stress included using nanoindentation experiments and dimensionless functions. 2023 , 282, 109175	0
115	Why do cracks occur in the weld joint of Ti-22Al-25Nb alloy during post-weld heat treatment?. 10,	0
114	Face Turning of Single Crystal (111)Ge: Cutting Mechanics and Surface/Subsurface Characteristics. 2023 , 145,	0
113	Measuring elastic parameters of transversely isotropic materials by cylindrical indentation. 2023 , 34, 065602	0
112	Practical Estimation Method of Anti-corrosion Performance Based on Physical Properties Evaluation of Glass-fiber Reinforced Plastic Based on Unsaturated Polyester Resin Used in Petroleum Fuels for a Long Period. 2023 , 72, 10-21	0
111	Strength of a cement-based dental material: Early age testing and first micromechanical modeling at mature age. 11,	0

- 110 Hardness and Young's Modulus Measurements of the Nonlinear Optical Crystals BaGa₂GeS₆ and BaGa₂GeSe₆. **2022**, ○
- 109 Effect of ultrasonic impact treatment on the properties of CoCrFeNiCu high-entropy alloy coatings on steel by induction cladding. **2023**, 459, 129390 ○
- 108 Design strategies of the mantis shrimp spike: How the crustacean cuticle became a remarkable biological harpoon. ○
- 107 Effect of Grain-Size in Nanocrystalline Tungsten on Hardness and Dislocation Density: A Molecular Dynamics Study. **2023**, 13, 469 ○
- 106 Microstructural evolution and mechanical properties of Ni/Al reactive nanolaminates with different Ni_xAl_y intermetallic phases. **2023**, 871, 144898 ○
- 105 Microstructure and Mechanical Properties of Ti-TiH₂ Based Matrix Composites Reinforced with xTiB₂ Particles Processed by Powder Metallurgy. **2023**, 13, 587 ○
- 104 Investigation of Mechanical Properties of Granular α Alumina using Experimental Nano indentation and Nano scratch Tests. ○
- 103 Elevated Temperature Wear Behavior of AZ91 Magnesium Alloy After Micro-Arc Oxidation in Single and Dual Phase Electrolytes. **2023**, 145, ○
- 102 A Critical Review of High-Temperature Tribology and Cutting Performance of Cermet and Ceramic Tool Materials. **2023**, 11, 122 ○
- 101 Synthesis and properties of Zn and ZnMg-doped tricalcium phosphates obtained by Spark Plasma Sintering. **2023**, ○
- 100 Inverse analysis of micro-mechanical parameters of rock-forming minerals based on nano-indentation technology. **2023**, 98, 055003 ○
- 99 Effects of nitrogen flow rate on the microstructure and mechanical and tribological properties of TiAlN films prepared via reactive magnetron sputtering. **2023**, ○
- 98 Experimental study on the effect of impurity concentration on phonon and electronic transport properties of single-crystal silicon. **2023**, 47, 106356 ○
- 97 Laser Sintering of CNT/PZT Composite Film. **2023**, 23, 3103 ○
- 96 Coordinatively Cross-Linked Binders for Silicon-Based Electrodes for Li-Ion Batteries: Beneficial Impact on Mechanical Properties and Electrochemical Performance. **2023**, 15, 15509-15524 ○
- 95 Nanostructure-dependent indentation fracture toughness of metal-organic framework monoliths. **2023**, 1, 100009 ○
- 94 Self-healing polyacrylate coatings with dynamic H-bonds between urea groups. **2023**, 140, ○
- 93 Fracture Testing of Lithium-Ion Battery Cathode Secondary Particles in-situ inside the Scanning Electron Microscope. ○

- 92 Integration of nanoindentation and finite element method for interpretable tensile properties: A cross-scale calculation method of uneven joints. **2023**, ○
- 91 Nanomechanical and Electrochemical Corrosion Testing of Nanocomposite Coating Obtained on AZ31 via Plasma Electrolytic Oxidation Containing TiN and SiC Nanoparticles. **2023**, 13, 508 ○
- 90 Preparation of Macroscopic Low-Density Gold Foams with Good Machinability. 1-9 ○
- 89 Study on the Wear Modes of PVD Films Using Different Concentrations of Al₂O₃ Abrasive Particles and Textured Rotating Balls. **2023**, 13, 628 1
- 88 Degradation of chemical and mechanical properties of cements with different formulations in CO₂-containing HTHP downhole environment. **2023**, ○
- 87 Surface, mechanical, and in vitro corrosion properties of arc-deposited TiAlN ceramic coating on biomedical Ti6Al4V alloy. **2023**, 33, 494-506 ○
- 86 Influence of substrate type on deformation specificity of soft film/hard substrate coated systems under nanomicroindentation. 1-31 ○
- 85 Carbon fiber reinforced ceramics: a flexible material for sophisticated applications. **2023**, 551-566 ○
- 84 Biocrystal assembly patterns, biopolymer distribution and material property relationships in mytilus galloprovincialis, Bivalvia, and haliotis glabra, Gastropoda, shells. **2023**, 28, 101749 ○
- 83 Unsupervised clustering of nanoindentation data for microstructural reconstruction: Challenges in phase discrimination. **2023**, 28, 101750 1
- 82 Effects of stoichiometry and individual layer thickness ratio on the quality of epitaxial CrB_x/TiB_y superlattice thin films. **2023**, 228, 111842 ○
- 81 Influence of Thermal Treatment on the Cross-Sectional Properties of Aerosol-Deposited Pb(Mg_{1/3}Nb_{2/3})O₃PbTiO₃ Thick Films. **2023**, 13, 536 ○
- 80 The Influence of Annealing and Film Thickness on the Specific Properties of Co₄₀Fe₄₀Y₂₀ Films. **2023**, 16, 2490 ○
- 79 Microstructure and Mechanical Properties of a Ni-Based Superalloy Thin Film Investigated by Micropillar Compression. **2023**, 54, 1526-1534 ○
- 78 Structure and Mechanical Properties of the NiTi Wire Joined by Laser Welding. **2023**, 16, 2543 ○
- 77 Polymer Nanofibers. 1-39 ○
- 76 Influence of graphene oxide on rheology, mechanical, dielectric, and triboelectric properties of poly(vinyl alcohol) nanocomposite hydrogels prepared via a facile one step process. ○
- 75 First Approach to ZrB₂ Thin Films Alloyed with Silver Prepared by Magnetron Co-Sputtering. **2023**, 13, 663 ○

- 74 Corrosion Resistance Performance of Epoxy Coatings Incorporated with Unmilled Micro Aluminium Pigments. **2023**, 13, 558 ○
- 73 Adhesive wear of TiAlN coatings during low speed turning of stainless steel 316L. **2023**, 204838 ○
- 72 The Impact of Laser Beam Power on the Microstructure and Some Mechanical Properties of Laser-Alloyed Inconel 600 with WC Particles. **2023**, 16, 2619 ○
- 71 Parametric crystalline characterization of Anatase/Rutile polymorphic ceramic. **2023**, 129, ○
- 70 Indentation Reverse Algorithm of Mechanical Response for Elastoplastic Coatings Based on LSTM Deep Learning. **2023**, 16, 2617 ○
- 69 Nanoindentation and Structural Analysis of Sintered TiAl(100 μ)-xTaN Composites at Room Temperature. **2023**, 16, 2607 ○
- 68 Microstructure, Mechanical, and Tribological Properties of Amorphous WB₂/Ti Multilayer Coatings. ○
- 67 Polymeric Interlayer Strengthening with Boron Neutron Capture Radiation Treatment for Laminated Glass. **2023**, 15, 1672 ○
- 66 A Devonian crinoid with a diamond microlattice. **2023**, 290, ○
- 65 Vpliv vlažnosti na mikrotrdoto smrekovine, določeno z vtiskanjem. **2023**, 72, ○
- 64 Assessment of Deformation Flow in 1050 Aluminum Alloy by the Implementation of Constitutive Model Parameters. **2023**, 13, 4359 ○
- 63 Rheology of Coal at Particle Level Characterized by Nanoindentation. ○
- 62 High-Throughput Alloy Development Using Advanced Characterization Techniques During Directed Energy Deposition Additive Manufacturing. ○
- 61 Silver Diamine Fluoride Compound for Dental Caries and Its Characterisation Using Microscopic Computed Tomography and Nanoindentation. **2023**, 23, 60-67 ○
- 60 Data-driven optimization of hardness and toughness of high-entropy nitride coatings. **2023**, ○
- 59 Analysis of zirconia mechanical properties after application of a protocol to simulate clinical aging. **2023**, ○
- 58 Synthesis and mechanical properties of co-deposited W nanoparticle and ZrCuAg metallic glass thin film composites. **2023**, 773, 139822 ○
- 57 Estimation of Residual Stresses in Coatings of Hard-Topocomposites by Repeated Microindentation. **2023**, 52, 31-37 ○

- 56 Physical Properties of Wood and Wood-Based Materials. **2023**, 281-353
- 55 Effect of ion-induced nuclear reactions on structure modification and radiolysis in LiF irradiated by 410 MeV ³⁶S ions. **2023**, 138, 113686
- 54 Adhesive Properties of Semiconducting Polymers: Poly(3-alkylthiophene) as an Ersatz Glue.
- 53 Tribological behavior of different doped ta-C coatings for slip-rolling contacts with high hertzian contact pressure.
- 52 Scratch and Wear Behaviour of Co-Cr-Mo Alloy in Ringer's Lactate Solution. **2023**, 16, 2923
- 51 Electrochemical-mechanical coupling measurements. **2023**, 7, 652-674
- 50 Fiber-bridging-induced toughening of perovskite for resistance to crack propagation. **2023**,
- 49 The interfacial transition zone microstructure of ground ferronickel slag incorporated self-compacting concrete investigated by nanoindentation. **2023**, 71, 106437
- 48 Nanoindentation and Corrosion Behavior of Additively Manufactured Ti-6Al-4V Alloy for Biomaterial Applications.
- 47 Toward an Instrumented Strength Microprobe: Origins of the Oliver-Pharr Method and Continued Advancements in Nanoindentation Part 2.
- 46 Y-TZP nanostructures with non-homogeneous yttria distribution for improved hydrothermal degradation resistance and mechanical properties. **2023**,
- 45 Improvement of the Surface Properties of Polyether Ether Ketone via Arc Evaporation for Biomedical Applications. **2023**, 16, 2990
- 44 Influence of deposition temperature on the structure and functional properties of Mg doped hydroxyapatite coatings deposited on manufactured AZ31B alloy substrates by RF magnetron sputtering. **2023**,
- 43 Multiscale Wood Micromechanics and Size Effects Study via Nanoindentation. **2023**,
- 42 Effects of Hydrogen Peroxide Concentration and Heat Treatment on the Mechanical Characteristics and Corrosion Resistance of Hydroxyapatite Coatings.
- 41 Three dimensional architected thermoelectric devices with high toughness and power conversion efficiency. **2023**, 14,
- 40 High speed nanoindentation aided correlative study between local mechanical properties and chemical segregation in equiatomic MoNb and MoNbTi alloys.
- 39 Chemical short range order and deformation mechanism of a refractory high entropy alloy HfNbTaZr under nanoindentation: An atomistic study. **2023**, 24, 3588-3598

- 38 Study on parameter measurement of elastic thin films with substrate effect based on contact mechanics. **2023**, 271-272, 112254 ○
- 37 Characterization, nanomechanical, and wear attributes of sintered AlTiB₂ composites. **2023**, 24, 4153-4167 ○
- 36 Tuning the absorption, luminescence, morphological and mechanical characteristics of ZrSiO₄ structure through simultaneous additions of Pr³⁺/PO₄³⁻ **2023**, ○
- 35 A criterion of the critical threshold of the maximum shear stress in bulk metallic glasses with cryogenic thermal cycling by statistics in nanoindentation. **2023**, 145031 ○
- 34 Microstructure analysis of Xe²⁰⁺ irradiation and postirradiation corrosion of Zr-4 and Zr-Nb alloys. **2023**, 209, 110986 ○
- 33 Spark plasma sintering and characterization of bulk La_{1-x}Sr_xB₆ hexaborides. **2023**, ○
- 32 Design and Fabrication of Micro Saw Enabling Root-Side Cutting of Bone. **2023**, 14, 856 ○
- 31 Improved nanoindentation methods for polymer based multilayer film cross-sections. **2023**, ○
- 30 Lifetime modeling of copper metallization for SiC power electronics. **2023**, ○
- 29 Deep learning virtual indenter maps nanoscale hardness rapidly and non-destructively, revealing mechanism and enhancing bioinspired design. **2023**, ○
- 28 Nanoindentation technique in characterizing cementitious materials—A review. **2023**, ○
- 27 Diamond grits reinforced coating on 35CrMnSi coal shearer cutting teeth: Microstructure, wear resistance and service performance in coal extraction. **2023**, 204929 ○
- 26 Friction and wear of DLC films deposited on additive manufactured AlSi10Mg: The role of surface finishing. **2023**, 129531 ○
- 25 Mechanical properties and peculiarities of molecular crystals. ○
- 24 Structural-Phase State and Properties of Cr-Al-Si-N Coatings Obtained by Vacuum Arc Plasma Deposition. **2023**, 26, 126-136 ○
- 23 Unveiling the secret of ancient Maya masons: Biomimetic lime plasters with plant extracts. **2023**, 9, ○
- 22 Study on dynamic fracture growth mechanism of continental shale under compression failure. **2023**, 204983 ○
- 21 Effect of yttrium on phase composition and microstructure of FeCoNiAlCrB high entropy alloys. **2023**, 873, 145058 ○

- 20 Indentation, Finite Element Modeling and Artificial Neural Network Studies on Mechanical Behavior of GFRP Composites in an Acidic Environment. **2023**, ○
- 19 Nanohardness and Elastic Modulus of TiNi-TiFe Single and Polycrystals. **2023**, 26, 152-156 ○
- 18 Microstructural features, physicmechanical properties, and wear behavior of dental translucent polychromic multilayer zirconia of hybrid composition prepared by milling technology. ○
- 17 Macromolecular Engineering: From Precise Macromolecular Inks to 3D Printed Microstructures. ○
- 16 Dispersant- and solvent-free pastes for UV-assisted micro-extrusion of porous proton conductive membrane supports. **2023**, ○
- 15 Modeling crystallographic anisotropy in interfacial sliding phenomenon in nanoindentation of nanoscale Cu/Nb accumulated rolling bonding (ARB) multilayered materials. **2023**, ○
- 14 On wear mechanisms and microstructural changes in nano-scratches of fcc metals. **2023**, 204928 ○
- 13 Effect of Cr:Fe ratio on the mechanical properties of (Cr,Fe)₇C₃ ternary carbides in abrasion-resistant white cast irons. ○
- 12 Nanoindentation Hardness, Strain-Rate Sensitivity, and Corrosion Response of Additively Manufactured Metals. **2023**, 1-13 ○
- 11 How the duty cycle affects wear and corrosion: A parametric study in the Ni-B-TiN composite coatings. **2023**, 100112 ○
- 10 Minor titanium addition markedly improves the co-deformability of copper-tantalum composites. **2023**, 145000 ○
- 9 Structural and functional heterogeneity of mineralized fibrocartilage at the Achilles tendon-bone insertion. **2023**, ○
- 8 Severe Plastic Deformed Zones and White Etching Layers Formed During Service of Railway Wheels. ○
- 7 Determination of Residual Stresses in Thin Hard Coatings of Topocomposites by Microindentation. **2023**, 43, 291-296 ○
- 6 Modelling and simulation of the hardness profile and its effect on the stress-strain behaviour of punched electrical steel sheets. **2023**, 54, 512-526 ○
- 5 Tissue phase affected fracture toughness of nano-columnar TiB₂ + z thin films. **2023**, 11, 613-622 ○
- 4 Electron-beam synthesis of ceramic- and boron-based coatings. **2023**, 98, 065930 ○
- 3 Microstructure, mechanical properties, electrical resistivity, and corrosion behavior of (AlCr)_x(HfMoNbZr)_{1-x} films. **2023**, 629, 157368 ○

- 2 Limits of powder metallurgy to fabricate porous Ti35Nb7Zr5Ta samples for cortical bone replacements. **2023**, 24, 6212-6226 ○
- 1 Study on tribological behavior of a-C:H:Si:O film caused by temperature-induced friction interface evolution. **2023**, 186, 108605 ○