

# CITATION REPORT

List of articles citing

**Ionized physical vapor deposition (IPVD): A review of technology and applications**

**DOI: 10.1016/j.tsf.2006.03.033**  
**Thin Solid Films, 2006, 513, 1-24.**

**Source:** <https://exaly.com/paper-pdf/40565792/citation-report.pdf>

**Version:** 2024-04-28

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
823	Extended Smoluchowski Model for the Formation of Size-Selected Silver Nanoclusters Generated via Modulated Pulsed Power Magnetron Sputtering.		
822	On the deposition rate in a high power pulsed magnetron sputtering discharge. <b>2006</b> , 89, 154104		135
821	High-power impulse magnetron sputtering of TiSiC thin films from a Ti <sub>3</sub> SiC <sub>2</sub> compound target. <i>Thin Solid Films</i> , <b>2006</b> , 515, 1731-1736	2.2	89
820	Guiding the deposition flux in an ionized magnetron discharge. <i>Thin Solid Films</i> , <b>2006</b> , 515, 1928-1931	2.2	67
819	Fundamentals of high power pulsed magnetron sputtering: Visualization of mechanisms for rate reduction and increased ion fraction. <b>2006</b> , 56, B93-B97		12
818	Ceramic PVD Coatings as Dense/Thin Barrier Layers on Interconnect Components for SOFC Applications. <b>2007</b> , 7, 2407-2416		1
817	Chapter 9 Integrated Approach to Dielectric Film Growth Modeling: Growth Mechanisms and Kinetics. <b>2007</b> , 34, 467-522		
816	High-power pulsed sputtering using a magnetron with enhanced plasma confinement. <b>2007</b> , 25, 42-47		71
815	Structural properties of transparent Tb-doped TiO <sub>2</sub> thin films. <b>2007</b> ,		
814	High power impulse magnetron sputtering: Current-voltage-time characteristics indicate the onset of sustained self-sputtering. <b>2007</b> , 102, 113303		249
813	Process characteristics and film properties upon growth of TiO <sub>x</sub> films by high power pulsed magnetron sputtering. <b>2007</b> , 40, 2108-2114		108
812	Ion flux characteristics in high-power pulsed magnetron sputtering discharges. <b>2007</b> , 77, 45002		55
811	Carbon nanochannels elaborated by buckle delamination control on patterned substrates. <b>2007</b> , 91, 013103		1
810	Growth and Novel Applications of Epitaxial Oxide Thin Films. <b>2007</b> , 219-304		25
809	Experimental study of a pre-ionized high power pulsed magnetron discharge. <b>2007</b> , 16, 501-510		55
808	Recent Progress in Researches on Sputter Deposition Process. <b>2007</b> , 50, 3-8		
807	Computer simulation of magnetron sputtering [Experience from the industry. <b>2007</b> , 202, 895-903		12

806	Simulation of Neutral Particle Flow During High Power Magnetron Impulse. <b>2007</b> , 4, S419-S423		59
805	Fluid Modelling of DC Magnetrons Flow Pressure Extension and Experimental Validation. <b>2007</b> , 4, S960-S964		3
804	Metal plasmas for the fabrication of nanostructures. <b>2007</b> , 40, 2272-2284		65
803	HIPIMS: Die neue PVD-Technologie. <b>2007</b> , 19, 12-17		3
802	Phase tailoring of Ta thin films by highly ionized pulsed magnetron sputtering. <i>Thin Solid Films</i> , <b>2007</b> , 515, 3434-3438	2.2	95
801	Hysteresis-free reactive high power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2008</b> , 516, 6398-6401	2.2	110
800	High power pulsed magnetron sputtering of transparent conducting oxides. <i>Thin Solid Films</i> , <b>2008</b> , 516, 5847-5859	2.2	93
799	Cr <sub>2</sub> O <sub>3</sub> template-texture effect on Al <sub>2</sub> O <sub>3</sub> thin-film growth. <i>Thin Solid Films</i> , <b>2008</b> , 516, 7447-7450	2.2	67
798	Surfactant sputtering. <b>2008</b> , 92, 517-524		61
797	La <sub>0.33</sub> Si <sub>0.26</sub> O <sub>2.6</sub> electrolyte thin films for IT-SOFC application deposited by a HIPIMS/DC hybrid magnetron sputtering process. <b>2008</b> , 14, 471-476		22
796	Application of magnetron sputtering for producing bioactive ceramic coatings on implant materials. <b>2008</b> , 31, 877-884		42
795	Filling trenches on a SiO <sub>2</sub> substrate with Cu using a hot refractory anode vacuum arc. <b>2008</b> , 85, 1713-1716		6
794	Characterization of the hardness and the substrate fluxes during reactive magnetron sputtering of TiN. <b>2008</b> , 202, 2314-2318		20
793	Process stabilization and enhancement of deposition rate during reactive high power pulsed magnetron sputtering of zirconium oxide. <b>2008</b> , 202, 5033-5035		67
792	A novel pulsing method for the enhancement of the deposition rate in high power pulsed magnetron sputtering. <b>2008</b> , 202, 5298-5301		6
791	The physical reason for the apparently low deposition rate during high-power pulsed magnetron sputtering. <b>2008</b> , 82, 867-870		78
790	Mechanical properties and oxidation behaviour of (Al,Cr)N and (Al,Cr,Si)N coatings for cutting tools deposited by HPPMS. <i>Thin Solid Films</i> , <b>2008</b> , 517, 1251-1256	2.2	101
789	HIPIMS Power for Improved Thin Film Coatings. <b>2008</b> , 20, 34-38		7

788	HIPIMS: The New PVD Technology. <b>2008</b> , 20, 27-32	9
787	Process Diagnostics. <b>2008</b> , 255-300	4
786	Properties of zinc oxide films synthesized in low-temperature plasma discharge under conditions of bombardment with plasma components. <b>2008</b> , 42, 486-489	14
785	Magnetic activity of Permalloy films grown in the recombination burning zone of a low-temperature plasma. <b>2008</b> , 53, 385-387	
784	Highly ionized fluxes of sputtered titanium atoms in high-power pulsed magnetron discharges. <b>2008</b> , 17, 025010	52
783	Self-sputtering runaway in high power impulse magnetron sputtering: The role of secondary electrons and multiply charged metal ions. <b>2008</b> , 92, 201501	74
782	Magnetron Sputtering of ZnO Films. <b>2008</b> , 187-233	8
781	Sputtering in vacuum: A technology for ultraclean metallization and space propulsion. <b>2008</b> ,	
780	Gasless sputtering: Opportunities for ultraclean metallization, coatings in space, and propulsion. <b>2008</b> , 92, 221503	65
779	Ionized physical vapor deposition (IPVD): magnetron sputtering discharges. <b>2008</b> , 100, 082002	12
778	Anomalous electron transport in high power impulse magnetron sputtering. <b>2008</b> , 17, 025007	47
777	Study of a fast high power pulsed magnetron discharge: role of plasma deconfinement on the charged particle transport. <b>2008</b> , 17, 035007	21
776	Cross-field ion transport during high power impulse magnetron sputtering. <b>2008</b> , 17, 035021	96
775	On the anisotropy and thermalization of the metal sputtered atoms in a low-pressure magnetron discharge. <b>2008</b> , 82, 15002	22
774	Industrial applications of HIPIMS. <b>2008</b> , 100, 082001	19
773	A bulk plasma model for dc and HiPIMS magnetrons. <b>2008</b> , 17, 045009	44
772	Spatial distribution of average charge state and deposition rate in high power impulse magnetron sputtering of copper. <b>2008</b> , 41, 135210	36
771	Tailoring the composition of self-assembled Si(1-x)C(x) quantum dots: simulation of plasma/ion-related controls. <b>2008</b> , 19, 355705	11

770	RF discharge under the influence of a transverse magnetic field. <b>2008</b> , 17, 045005	13
769	Ionization mechanism in the high power impulse magnetron sputtering (HiPIMS) discharge. <b>2008</b> , 100, 082013	36
768	Current developments in ionised physical vapour deposition by magnetron sputtering & state of the art & prospects for the future in terms of applications. <b>2008</b> , 24, 319-321	2
767	A semi-quantitative model for the deposition rate in non-reactive high power pulsed magnetron sputtering. <b>2008</b> , 41, 215301	20
766	Observation of Ti <sup>4+</sup> ions in a high power impulse magnetron sputtering plasma. <b>2008</b> , 93, 071504	54
765	3D IC Process integration challenges and solutions. <b>2008</b> ,	2
764	Broad, intense, quiescent beam of singly charged metal ions obtained by extraction from self-sputtering plasma far above the runaway threshold. <b>2009</b> , 106, 023306	10
763	Spatially resolved spectroscopy of an impulse plasma for thin film deposition. <b>2009</b> , 18, 035015	5
762	Integration of Atomic Layer Deposition-Grown Copper Seed Layers for Cu Electroplating Applications. <b>2009</b> , 156, H734	17
761	Nano-modification of textile surfaces using layer-by-layer deposition methods. <b>2009</b> , 214-237	2
760	Textile surface functionalization by physical vapor deposition (PVD). <b>2009</b> , 58-90	10
759	Low Temperature Copper Deposition by PE-ALD. <b>2009</b> , 1195, 283	
758	Alumina coatings on WC/Co substrates by physical vapor deposition. <b>2009</b> , 27, 507-512	34
757	Effects of capacitively-coupled radio-frequency discharge on operation voltage in magnetron sputtering. <b>2009</b> , 203, 2767-2770	
756	Spectroscopic evaluation of a compact magnetically boosted radiofrequency glow discharge for time-of-flight mass spectrometry. <b>2009</b> , 394, 373-82	9
755	Cathode Current Density Distributions in High Power Impulse and Direct Current Magnetron Sputtering Modes. <b>2009</b> , 6, S548-S553	15
754	Measurements of Deposition Rate and Substrate Heating in a HiPIMS Discharge. <b>2009</b> , 6, S543-S547	36
753	High Temporal Resolution Ion Energy Distribution Functions in HiPIMS Discharges. <b>2009</b> , 6, S610-S614	10

752	Thermal Stability and Phase Transformations of $\text{Hf}$ /Amorphous- $\text{Al}_2\text{O}_3$ Thin Films. <b>2009</b> , 6, S907-S911		62
751	Analysis on the corrosion behavior of DC53 tool steel coated by $\text{TiAlTiN}$ films via filtered cathodic arc deposition. <i>Thin Solid Films</i> , <b>2009</b> , 517, 5212-5215	2.2	9
750	Compositional and structural evolution of sputtered Ti-Al-N. <i>Thin Solid Films</i> , <b>2009</b> , 517, 6635-6641	2.2	57
749	Modulated pulse power sputtered chromium coatings. <i>Thin Solid Films</i> , <b>2009</b> , 518, 1566-1570	2.2	54
748	High-voltage glow discharge plasma immersion ion implantation assisted by magnetic field. <b>2009</b> , 203, 2751-2754		2
747	Ion energy and mass distributions of the plasma during modulated pulse power magnetron sputtering. <b>2009</b> , 203, 3676-3685		95
746	Metallic film deposition using a vacuum arc plasma source with a refractory anode. <b>2009</b> , 204, 865-871		26
745	The path to stoichiometric composition of IIIIV binary quantum dots through plasma/ion-assisted self-assembly. <b>2009</b> , 603, 359-368		10
744	Stress and microstructure evolution in thick sputtered films. <b>2009</b> , 57, 2055-2065		96
743	HiPIMS - Technologie und Anwendungsfelder. <b>2009</b> , 21, 32-38		10
742	Deposition of $\text{LaMnO}_3$ buffer layer on IBAD-MgO template by reactive DC sputtering. <b>2009</b> , 469, 1554-1558		5
741	Surface energy evaluation of unhydrogenated DLC thin film deposited by thermionic vacuum arc (TVA) method. <b>2009</b> , 54, 433-437		15
740	Study of a HPPMS discharge in Ar/ $\text{O}_2$ mixture: I. Discharge characteristics with Ru cathode. <b>2009</b> , 18, 045025		21
739	Physics and phenomena in pulsed magnetrons: an overview. <b>2009</b> , 42, 093001		59
738	Properties of permalloy films produced in low-temperature plasma flows with a controlled composition. <b>2009</b> , 54, 1228-1231		1
737	Neutralization of an ion beam from the end-Hall ion source by a plasma electron source based on a discharge in crossed $\text{E}$ $\text{H}$ fields. <b>2009</b> , 54, 1461-1466		2
736	High power pulsed magnetron sputtering: Fundamentals and applications. <b>2009</b> , 483, 530-534		99
735	Electron energy distributions and plasma parameters in high-power pulsed magnetron sputtering discharges. <b>2009</b> , 18, 025008		62

734	On the electron energy in the high power impulse magnetron sputtering discharge. <b>2009</b> , 105, 123302		61
733	Self-sputtering far above the runaway threshold: an extraordinary metal-ion generator. <b>2009</b> , 102, 045003		63
732	Energy flux measurements in high power impulse magnetron sputtering. <b>2009</b> , 42, 185202		51
731	Plasma Anti-assistance and Self-assistance to high power impulse magnetron sputtering. <b>2009</b> , 105, 073301		36
730	Investigations of Production Processes of Ti+in High-Pressure Magnetron Sputtering Plasmas. <b>2009</b> , 48, 126003		6
729	The structure and properties of chromium nitride coatings deposited using dc, pulsed dc and modulated pulse power magnetron sputtering. <b>2010</b> , 204, 2230-2239		137
728	On the film density using high power impulse magnetron sputtering. <b>2010</b> , 205, 591-596		261
727	Physicochemical and structural characteristics of TiC and VC thin films deposited by DC reactive magnetron sputtering. <b>2010</b> , 45, 4994-5001		8
726	Thin film deposition using a plasma source with a hot refractory anode vacuum arc. <b>2010</b> , 45, 6325-6331		13
725	Abrasive and Adhesive Wear Behavior of Arc-Evaporated Al <sub>1-x</sub> Cr <sub>x</sub> N Hard Coatings. <b>2010</b> , 37, 605-611		24
724	The Mn + 1AXn phases: Materials science and thin-film processing. <i>Thin Solid Films</i> , <b>2010</b> , 518, 1851-1878	2.2	759
723	A structure zone diagram including plasma-based deposition and ion etching. <i>Thin Solid Films</i> , <b>2010</b> , 518, 4087-4090	2.2	480
722	Texture and microstructure of Cr <sub>2</sub> O <sub>3</sub> and (Cr,Al) <sub>2</sub> O <sub>3</sub> thin films deposited by reactive inductively coupled plasma magnetron sputtering. <i>Thin Solid Films</i> , <b>2010</b> , 518, 4294-4298	2.2	55
721	Bias effects on the tribological behavior of cathodic arc evaporated CrTiAlN coatings on AISI 304 stainless steel. <i>Thin Solid Films</i> , <b>2010</b> , 518, 3825-3829	2.2	27
720	Structure and properties of high power impulse magnetron sputtering and DC magnetron sputtering CrN and TiN films deposited in an industrial scale unit. <i>Thin Solid Films</i> , <b>2010</b> , 518, 5558-5564	2.2	82
719	Fully dense, non-faceted 111-textured high power impulse magnetron sputtering TiN films grown in the absence of substrate heating and bias. <i>Thin Solid Films</i> , <b>2010</b> , 518, 5978-5980	2.2	93
718	Spatial and temporal investigation of high power pulsed magnetron discharges by optical 2D-imaging. <i>Thin Solid Films</i> , <b>2010</b> , 519, 1699-1704	2.2	24
717	High power pulsed magnetron sputtering: A review on scientific and engineering state of the art. <b>2010</b> , 204, 1661-1684		714

716	Control of reactive high power impulse magnetron sputtering processes. <b>2010</b> , 204, 2159-2164	46
715	Dual-magnetron open field sputtering system for sideways deposition of thin films. <b>2010</b> , 204, 2165-2169	21
714	Industrial-scale deposition of highly adherent CN <sub>x</sub> films on steel substrates. <b>2010</b> , 204, 3349-3357	26
713	Microstructure control of CrN <sub>x</sub> films during high power impulse magnetron sputtering. <b>2010</b> , 205, 118-130	70
712	Al and Zn film deposition using a vacuum arc plasma source with a refractory anode. <b>2010</b> , 205, 2369-2374	7
711	The high power impulse magnetron sputtering discharge as an ionized physical vapor deposition tool. <b>2010</b> , 84, 1360-1364	82
710	Effect of the target bias voltage during off-pulse period on the impulse magnetron sputtering. <b>2010</b> , 84, 1368-1371	14
709	Time and energy resolved ion mass spectroscopy studies of the ion flux during high power pulsed magnetron sputtering of Cr in Ar and Ar/N <sub>2</sub> atmospheres. <b>2010</b> , 84, 1159-1170	106
708	Reactive deposition of AlN coatings in Ar/N <sub>2</sub> atmospheres using pulsed-DC or high power impulse magnetron sputtering discharges. <b>2010</b> , 85, 120-125	29
707	Generation of transform-limited rectangular pulses in a spectral compressor. <b>2010</b> , 40, 868-872	8
706	An adaptive real-time disruption predictor for ASDEX Upgrade. <b>2010</b> , 50, 075004	40
705	Ion flux characteristics and efficiency of the deposition processes in high power impulse magnetron sputtering of zirconium. <b>2010</b> , 108, 063307	23
704	On the phase formation of sputtered hafnium oxide and oxynitride films. <b>2010</b> , 108, 014904	32
703	Thin Film Deposition Using Energetic Ions. <b>2010</b> , 3, 4109-4141	61
702	Ion current to a substrate in the pulsed dc hollow cathode plasma jet deposition system. <b>2010</b> , 43, 124019	5
701	Formation of iron nanoparticles on quartz substrate using dense plasma focus device. <b>2010</b> , 208, 012105	3
700	Nanoscale precipitation patterns in carbon/black nanocomposite thin films: Period and tilt control via ion energy and deposition angle. <b>2010</b> , 108, 043503	16
699	Compression and strong rarefaction in high power impulse magnetron sputtering discharges. <b>2010</b> , 108, 123306	62



698	. <b>2010</b> , 38, 3089-3094	35
697	Nanocomposite Coatings for Severe Applications. <b>2010</b> , 679-715	6
696	$\text{CrN}_x$ Films Prepared by DC Magnetron Sputtering and High-Power Pulsed Magnetron Sputtering: A Comparative Study. <b>2010</b> , 38, 3046-3056	65
695	Deposition rates of high power impulse magnetron sputtering: Physics and economics. <b>2010</b> , 28, 783-790	134
694	Advances in Thin Film Technology through the Application of Modulated Pulse Power Sputtering. <b>2010</b> , 638-642, 208-213	6
693	Enhancement of Ti+density in high-pressure magnetron sputtering plasmas. <b>2010</b> , 43, 124012	7
692	Effect of nitrogen doping on TiOxNythin film formation at reactive high-power pulsed magnetron sputtering. <b>2010</b> , 43, 285203	44
691	A phenomenological equilibrium model applicable to high-power pulsed magnetron sputtering. <b>2010</b> , 19, 065010	57
690	Distance-dependent plasma composition and ion energy in high power impulse magnetron sputtering. <b>2010</b> , 43, 275204	18
689	Vacuum Evaporation and Vacuum Deposition. <b>2010</b> , 195-235	13
688	Ion Plating and Ion Beam-Assisted Deposition. <b>2010</b> , 301-331	8
687	Sputter Deposition Processes. <b>2010</b> , 253-296	31
686	Ion Plating. <b>2010</b> , 297-313	
685	The evolution of the plasma potential in a HiPIMS discharge and its relationship to deposition rate. <b>2010</b> , 19, 045014	100
684	Effect of Negative Substrate Bias on the Structure and Properties of Ta Coatings Deposited Using Modulated Pulse Power Magnetron Sputtering. <b>2010</b> , 38, 3071-3078	41
683	Short- and long-term plasma phenomena in a HiPIMS discharge. <b>2010</b> , 19, 025010	90
682	Time-resolved investigation of dual high power impulse magnetron sputtering with closed magnetic field during deposition of TiCu thin films. <b>2010</b> , 108, 043305	50
681	Improvements to bit line contact processing in trench DRAM. <b>2011</b> , 29, 06B101	

680	Measured density of copper atoms in the ground and metastable states in argon magnetron discharge correlated with the deposition rate. <b>2011</b> , 44, 025202	14
679	Observation of the Magnetic Separatrix Between a Magnetron and an Electron-Cyclotron Resonance Discharge. <b>2011</b> , 39, 2464-2465	
678	A synchronized emissive probe for time-resolved plasma potential measurements of pulsed discharges. <b>2011</b> , 82, 093505	10
677	Plasma nanoscience: setting directions, tackling grand challenges. <b>2011</b> , 44, 174001	143
676	An ionization region model for high-power impulse magnetron sputtering discharges. <b>2011</b> , 20, 065007	78
675	The 2D plasma potential distribution in a HiPIMS discharge. <b>2011</b> , 44, 425201	35
674	Double magnetron self-sputtering in HiPIMS discharges. <b>2011</b> , 20, 065008	4
673	Angular-resolved energy flux measurements of a dc- and HIPIMS-powered rotating cylindrical magnetron in reactive and non-reactive atmosphere. <b>2011</b> , 44, 115201	29
672	Internal current measurements in high power impulse magnetron sputtering. <b>2011</b> , 20, 045003	31
671	Discharge Properties of High-Power Pulsed Unbalanced Magnetron Sputtering. <b>2011</b> , 13, 667-671	4
670	Effect of negative substrate bias voltage on the structure and properties of CrN films deposited by modulated pulsed power (MPP) magnetron sputtering. <b>2011</b> , 44, 425305	32
669	Controlled glow to arc transition in sputtering for high rate deposition of carbon films. <b>2011</b> , 20, 68-74	34
668	Microstructure and mechanical properties of CrN films fabricated by high power pulsed magnetron discharge plasma immersion ion implantation and deposition. <b>2011</b> , 258, 242-246	19
667	Atomistic mechanism of cyclic phase transitions in NdBeB based intermetallics. <b>2011</b> , 19, 1265-1273	14
666	Current-voltage-time characteristics of the reactive Ar/N <sub>2</sub> high power impulse magnetron sputtering discharge. <b>2011</b> , 110, 083306	47
665	Dynamic Study of Dual High-Power Impulse Magnetron Sputtering Discharge by Optical Emission Imaging. <b>2011</b> , 39, 2454-2455	3
664	A comparative research on magnetron sputtering and arc evaporation deposition of TiAlN coatings. <i>Thin Solid Films</i> , <b>2011</b> , 519, 3762-3767	2.2 27
663	Reactive ionized physical vapor deposition of thin films. <b>2011</b> , 56, 24002	11

662	Time-resolved plasma parameters in the HiPIMS discharge with Ti target in Ar/O <sub>2</sub> atmosphere. <b>2011</b> , 205, S317-S321		38
661	Time-resolved plasma characterisation of modulated pulsed power magnetron sputtering of chromium. <b>2011</b> , 205, S312-S316		26
660	Discharge physics of high power impulse magnetron sputtering. <b>2011</b> , 205, S1-S9		194
659	Structurally laminated CrN films deposited by multi pulse modulated pulsed power magnetron sputtering. <b>2011</b> , 206, 1780-1786		9
658	Hysteresis and process stability in reactive high power impulse magnetron sputtering of metal oxides. <i>Thin Solid Films</i> , <b>2011</b> , 519, 7779-7784	2.2	72
657	Morphology of TiN thin films grown on SiO <sub>2</sub> by reactive high power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2011</b> , 520, 1621-1624	2.2	56
656	Deposition rate characteristics for steady state high power impulse magnetron sputtering (HIPIMS) discharges generated with a modulated pulsed power (MPP) generator. <i>Thin Solid Films</i> , <b>2011</b> , 520, 1559-1563	2.2	40
655	Deposition of thin titanium-copper films with antimicrobial effect by advanced magnetron sputtering methods. <b>2011</b> , 31, 1512-1519		93
654	Multi-dimensional optical and laser-based diagnostics of low-temperature ionized plasma discharges. <b>2011</b> , 20, 053001		9
653	Growth and properties of Ti-Cu films with respect to plasma parameters in dual-magnetron sputtering discharges. <b>2011</b> , 64, 427-435		28
652	Effect of peak power in reactive high power impulse magnetron sputtering of titanium dioxide. <b>2011</b> , 205, 4828-4831		62
651	Recent advances in modulated pulsed power magnetron sputtering for surface engineering. <b>2011</b> , 63, 48-58		63
650	Wear behavior of HPPMS deposited (Ti,Al,Si)N coating under impact loading. <b>2011</b> , 42, 165-171		2
649	Time-Resolved Diagnostics of Dual High Power Impulse Magnetron Sputtering With Pulse Delays of 15 $\mu$ s and 500 $\mu$ s. <b>2011</b> , 51, 237-245		24
648	Ion density increase in high power twin-cathode magnetron system. <b>2011</b> , 86, 78-81		8
647	Investigation of reactive high power impulse magnetron sputtering processes using various target material-reactive gas combinations. <b>2011</b> , 205, 3613-3620		14
646	Mitigating the geometrical limitations of conventional sputtering by controlling the ion-to-neutral ratio during high power pulsed magnetron sputtering. <i>Thin Solid Films</i> , <b>2011</b> , 519, 6354-6361	2.2	44
645	Improved Step Coverage of Cu Seed Layers by Magnetic-Field-Assisted Ionized Sputtering. <b>2011</b> , 50, 05EA03		2

644	Effects of the magnetic field strength on the modulated pulsed power magnetron sputtering of metallic films. <b>2011</b> , 29, 061301	11
643	Improving the quality of barrier/seed interface by optimizing physical vapor deposition of Cu Film in hollow cathode magnetron. <b>2011</b> , 29, 041514	13
642	Growth of TiO <sub>2</sub> thin films on Si(001) and SiO <sub>2</sub> by reactive high power impulse magnetron sputtering. <b>2011</b> , 1352, 39	1
641	Thick Beryllium Coatings by Magnetron Sputtering. <b>2011</b> , 1339, 1	
640	Comparison of TiN thin films grown on SiO <sub>2</sub> by reactive dc magnetron sputtering and high power impulse magnetron sputtering. <b>2011</b> , 1335, 81	
639	Large effects of small pressure changes in the kinetics of low pressure glow discharges. <b>2011</b> , 20, 024006	10
638	Epitaxy of Ultrathin NiSi <sub>2</sub> Films with Predetermined Thickness. <b>2011</b> , 14, H268	21
637	Conformal Ni-silicide formation over three-dimensional device structures. <b>2012</b> , 101, 053508	4
636	Drifting localization of ionization runaway: Unraveling the nature of anomalous transport in high power impulse magnetron sputtering. <b>2012</b> , 111, 053304	115
635	Current-Voltage-Time characteristics of the reactive Ar/O <sub>2</sub> high power impulse magnetron sputtering discharge. <b>2012</b> , 30, 050601	33
634	Plasma Technology, Nanoengineering of Advanced Materials. <b>2012</b> , 1	1
633	Measurable time-restricted sensitivity. <b>2012</b> , 25, 3313-3325	5
632	Effects of substrate bias voltage on the microstructure, mechanical properties and tribological behavior of reactive sputtered niobium carbide films. <b>2012</b> , 212, 185-191	35
631	Nucleation and Resistivity of Ultrathin TiN Films Grown by High-Power Impulse Magnetron Sputtering. <b>2012</b> , 33, 1045-1047	28
630	High power impulse magnetron sputtering discharge. <b>2012</b> , 30, 030801	477
629	An introduction to thin film processing using high-power impulse magnetron sputtering. <b>2012</b> , 27, 780-792	217
628	Plasma flares in high power impulse magnetron sputtering. <b>2012</b> , 101, 224102	40
627	Growth of Ti-C nanocomposite films by reactive high power impulse magnetron sputtering under industrial conditions. <b>2012</b> , 206, 2396-2402	49

626	ZrB <sub>2</sub> thin films grown by high power impulse magnetron sputtering from a compound target. <i>Thin Solid Films</i> , <b>2012</b> , 526, 163-167	2.2	46
625	Plasma diagnostics of low pressure high power impulse magnetron sputtering assisted by electron cyclotron wave resonance plasma. <b>2012</b> , 112, 093305		15
624	A novel high-power pulse PECVD method. <b>2012</b> , 206, 4562-4566		21
623	Characteristics and tribological performance of DLC and Si-DLC films deposited on nitrile rubber. <b>2012</b> , 206, 4585-4593		38
622	Adhesion and composite micro-hardness of DLC and Si-DLC films deposited on nitrile rubber. <b>2012</b> , 206, 4881-4886		41
621	Titanium film deposition by high-power impulse magnetron sputtering: Influence of pulse duration. <b>2012</b> , 86, 2114-2119		45
620	Alfvén's critical ionization velocity observed in high power impulse magnetron sputtering discharges. <b>2012</b> , 19, 093505		27
619	Glass and Glass-Ceramics. <b>2012</b> , 323-386		4
618	Sputter Processing. <b>2012</b> , 55-88		8
617	Synthesis and properties of Cr <sub>2</sub> AlSiN <sub>2</sub> films deposited by hybrid coating system with high power impulse magnetron sputtering (HIPIMS) and DC pulse sputtering. <b>2012</b> , 22, s729-s734		8
616	Influence of ionization degree on film properties when using high power impulse magnetron sputtering. <b>2012</b> , 30, 031507		25
615	A strategy for increased carbon ionization in magnetron sputtering discharges. <b>2012</b> , 23, 1-4		84
614	Reactive Sputter Deposition of Alumina Coatings. <b>2012</b> , 39, 012009		1
613	Titanium aluminum nitride sputtered by HIPIMS. <b>2012</b> , 39, 012001		1
612	Domino Platform: PVD Coaters for Arc Evaporation and High Current Pulsed Magnetron Sputtering. <b>2012</b> , 39, 012004		4
611	Argon metastables in HiPIMS: time-resolved tunable diode-laser diagnostics. <b>2012</b> , 21, 025010		70
610	Plasma potential mapping of high power impulse magnetron sputtering discharges. <b>2012</b> , 111, 083302		65
609	Interface phenomena in (super)hard nitride nanocomposites: from coatings to bulk materials. <b>2012</b> , 41, 5081-101		25

608	Thick beryllium coatings by ion-assisted magnetron sputtering. <b>2012</b> , 27, 822-828	13
607	Pulse Magnetron Sputtering with high power density [An attempt at a critical evaluation. <b>2012</b> , 39, 012007	
606	Recent developments in the field of transparent conductive oxide films for spectral selective coatings, electronics and photovoltaics. <b>2012</b> , 12, S2-S11	60
605	Adhesion improvement of carbon-based coatings through a high ionization deposition technique. <b>2012</b> , 370, 012009	23
604	Understanding deposition rate loss in high power impulse magnetron sputtering: I. Ionization-driven electric fields. <b>2012</b> , 21, 025005	58
603	Ionized metal flux fraction measurements in HiPIMS discharges. <b>2012</b> , 45, 322001	27
602	Pressure effects on HiPIMS deposition of hafnium films. <b>2012</b> , 206, 3795-3802	9
601	Gas rarefaction and the time evolution of long high-power impulse magnetron sputtering pulses. <b>2012</b> , 21, 045004	63
600	Nonsputtering impulse magnetron discharge. <b>2012</b> , 38, 71-78	7
599	A New Approach to High-Power Pulsed Glow Plasma Generation: Shunting Glow Plasma. <b>2012</b> , 40, 1801-1808	4
598	Tribological behavior of thick CrN coatings deposited by modulated pulsed power magnetron sputtering. <b>2012</b> , 206, 2474-2483	41
597	The Kelvin probe technique for assessing efficiency of stearic acid removal from gold surfaces using atmospheric-pressure plasma. <b>2012</b> , 206, 3715-3720	
596	Exploring the potential of high power impulse magnetron sputtering for growth of diamond-like carbon films. <b>2012</b> , 206, 2706-2710	77
595	Effect of mid-frequency discharge assistance on dual-high power impulse magnetron sputtering. <b>2012</b> , 206, 2801-2809	36
594	A comparison of the oxidation behavior of CrN films deposited using continuous dc, pulsed dc and modulated pulsed power magnetron sputtering. <b>2012</b> , 206, 3283-3290	52
593	Investigation of the mechanical properties of aluminium oxide thin films on polymer substrates by a combination of fragmentation and scratch testing. <b>2012</b> , 206, 3309-3315	9
592	Deposition of titanium oxide films by reactive High Power Impulse Magnetron Sputtering (HiPIMS): Influence of the peak current value on the transition from metallic to poisoned regimes. <b>2012</b> , 206, 3542-3549	43
591	High rate deposition of mixed oxides by controlled reactive magnetron-sputtering from metallic targets. <i>Thin Solid Films</i> , <b>2012</b> , 520, 4122-4126	2.2 11

590	. <b>2013</b> , 41, 1819-1829		41
589	Magnetic dipole discharges. I. Basic properties. <b>2013</b> , 20, 083503		7
588	Atom insertion into grain boundaries and stress generation in physically vapor deposited films. <b>2013</b> , 103, 051910		51
587	Hybrid HIPIMS and DC magnetron sputtering deposition of TiN coatings: Deposition rate, structure and tribological properties. <b>2013</b> , 236, 13-21		58
586	Micrograph and structure of CrN films prepared by plasma immersion ion implantation and deposition using HPPMS plasma source. <b>2013</b> , 229, 210-216		12
585	Rutile TiO <sub>2</sub> thin films grown by reactive high power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2013</b> , 545, 445-450	2.2	45
584	Investigation of reactive HiPIMS+MF sputtering of TiO <sub>2</sub> crystalline thin films. <b>2013</b> , 232, 376-383		23
583	. <b>2013</b> , 41, 3012-3020		12
582	Modified high power impulse magnetron sputtering process for increased deposition rate of titanium. <b>2013</b> , 31, 060604		20
581	Influence of inert gases on the reactive high power pulsed magnetron sputtering process of carbon-nitride thin films. <b>2013</b> , 31, 011503		17
580	Microstructure and Platelet Adhesion Behavior of Titanium Oxide Films Synthesized by Reactive High-Power Pulse Magnetron Sputtering. <b>2013</b> , 41, 1837-1843		6
579	Spokes and charged particle transport in HiPIMS magnetrons. <b>2013</b> , 46, 084005		77
578	The properties of TiN ultra-thin films grown on SiO <sub>2</sub> substrate by reactive high power impulse magnetron sputtering under various growth angles. <i>Thin Solid Films</i> , <b>2013</b> , 548, 354-357	2.2	12
577	Epitaxial (100)-oriented Mo/V superlattice grown on MgO(100) by dcMS and HiPIMS. <i>Thin Solid Films</i> , <b>2013</b> , 549, 172-176	2.2	1
576	Characterization and device applications of ZnO films deposited by high power impulse magnetron sputtering (HiPIMS). <b>2013</b> , 46, 165105		11
575	Thick CrN/AlN superlattice coatings deposited by the hybrid modulated pulsed power and pulsed dc magnetron sputtering. <b>2013</b> , 228, S601-S606		18
574	Comparison of AlSiN nanocomposite coatings deposited by HIPIMS and DC magnetron sputtering. <b>2013</b> , 232, 680-689		60
573	Deposition of hematite Fe <sub>2</sub> O <sub>3</sub> thin film by DC pulsed magnetron and DC pulsed hollow cathode sputtering system. <i>Thin Solid Films</i> , <b>2013</b> , 549, 184-191	2.2	26

572	Angle-resolved investigation of ion dynamics in high power impulse magnetron sputtering deposition system. <i>Thin Solid Films</i> , <b>2013</b> , 549, 177-183	2.2	25
571	Influence of Al and Si content on structure and mechanical properties of arc evaporated AlCrSiN thin films. <i>Thin Solid Films</i> , <b>2013</b> , 534, 403-409	2.2	39
570	Influence of substrate rotation and target arrangement on the periodicity and uniformity of layered coatings. <b>2013</b> , 235, 32-44		25
569	Ultra-thin poly-crystalline TiN films grown by HiPIMS on MgO(100) □ In-situ resistance study of the initial stage of growth. <i>Thin Solid Films</i> , <b>2013</b> , 549, 199-203	2.2	10
568	Investigation and optimization of the magnetic field configuration in high-power impulse magnetron sputtering. <b>2013</b> , 22, 045012		16
567	Instabilities in high-power impulse magnetron plasmas: from stochasticity to periodicity. <b>2013</b> , 46, 084007		27
566	High Power Pulsed Plasma Enhanced Chemical Vapor Deposition: A Brief Overview of General Concepts and Early Results. <b>2013</b> , 46, 3-11		13
565	Microstructure, mechanical and tribological behaviors of MoS <sub>2</sub> -Ti composite coatings deposited by a hybrid HIPIMS method. <b>2013</b> , 228, 275-281		71
564	Metal seed layer sputtering on high aspect ratio through-silicon-vias for copper filling electroplating. <b>2013</b> , 114, 832-837		6
563	HiPIMS deposition of TiO <sub>x</sub> in an industrial-scale apparatus: Effects of target size and deposition geometry on hysteresis. <b>2013</b> , 235, 714-719		14
562	Effects of target voltage during pulse-off period in pulsed magnetron sputtering on afterglow plasma and deposited film structure. <b>2013</b> , 87, 109-113		18
561	Properties of silicon films grown under different pressures in a plasma-forming system. <b>2013</b> , 47, 1264-1266		3
560	Tilt of the columnar microstructure in off-normally deposited thin films using highly ionized vapor fluxes. <b>2013</b> , 113, 174906		24
559	Osteoblast behavior on various ultra short pulsed laser deposited surface coatings. <b>2013</b> , 33, 1676-82		8
558	Effect of incident angle on thin film growth: A molecular dynamics simulation study. <i>Thin Solid Films</i> , <b>2013</b> , 544, 496-499	2.2	15
557	Time-resolved Langmuir probe investigation of hybrid high power impulse magnetron sputtering discharges. <b>2013</b> , 90, 176-181		11
556	Extraordinary deposition rate of diamond-like carbon film using HIPIMS technology. <b>2013</b> , 229, 46-49		25
555	Time-resolved tunable diode laser absorption spectroscopy of excited argon and ground-state titanium atoms in pulsed magnetron discharges. <b>2013</b> , 22, 015002		27



554	Understanding the discharge current behavior in reactive high power impulse magnetron sputtering of oxides. <b>2013</b> , 113, 133302		75
553	Growth of $\text{VAlC}$ thin films by direct current and high power impulse magnetron sputtering from a powder metallurgical composite target. <i>Thin Solid Films</i> , <b>2013</b> , 538, 1-6	2.2	9
552	Plasma nanoscience: from nano-solids in plasmas to nano-plasmas in solids. <b>2013</b> , 62, 113-224		443
551	The $\Gamma$ to $\Phi$ phase transition of tantalum coatings deposited by modulated pulsed power magnetron sputtering. <b>2013</b> , 214, 38-45		63
550	Cu Ion Current Measurements in a Vacuum Arc With a Black Body Electrode Configuration. <b>2013</b> , 41, 1987-1991		3
549	Structural control of carbon nickel nano-composite thin films without substrate heating. <i>Thin Solid Films</i> , <b>2013</b> , 540, 10-16	2.2	6
548	Adhesion Tendency of Polymers to Hard Coatings. <b>2013</b> , 28, 415-420		6
547	Corrosion resistant coatings for dental implants. <b>2013</b> , 250-308		2
546	Time-domain and energetic bombardment effects on the nucleation and coalescence of thin metal films on amorphous substrates. <b>2013</b> , 46, 215303		16
545	Performance of Integrated Cu Gap-Filling Process with Chemical Vapor Deposition Cobalt Liner. <b>2013</b> , 52, 05FA01		12
544	Plasma Diagnostics and Characterizations of Al-Doped ZnO Films Deposited with Low Temperature Sputtering Process. <b>2013</b> , 52, 11NB02		6
543	Development of High-flux Ion Source for Size-selected Nanocluster Ions Based on High-power Impulse Magnetron Sputtering. <b>2013</b> , 42, 857-859		29
542	Decorative PVD Coatings. <b>2013</b> , 109-162		1
541	Plasma Electrolytic Oxidation Coatings on Lightweight Metals. <b>2013</b> ,		11
540	The use of Highly Ionized Pulsed Plasmas for the Synthesis of Advanced Thin Films and Nanoparticles. <b>2014</b> , 31, 171-180		6
539	Electron transport in magnetrons by a posteriori Monte Carlo simulations. <b>2014</b> , 23, 015012		5
538	Localized heating of electrons in ionization zones: Going beyond the Penning-Thornton paradigm in magnetron sputtering. <b>2014</b> , 105, 244104		39
537	Plasma Sources in Thin Film Deposition. <b>2014</b> , 307-324		2

536	High Power Impulse Magnetron Sputtering [HIPIMS. <b>2014</b> , 75-99			17
535	Impulse Plasma In Surface Engineering - a review. <b>2014</b> , 564, 012007			9
534	Downstream plasma transport and metal ionization in a high-powered pulsed-plasma magnetron. <b>2014</b> , 115, 223301			19
533	A combinatorial comparison of DC and high power impulse magnetron sputtered Cr <sub>2</sub> AlC. <b>2014</b> , 259, 746-750			13
532	The influence of deposition parameters on the structure and properties of aluminum nitride coatings deposited by high power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2014</b> , 572, 161-168	2.2		18
531	Epitaxial growth of Al <sub>2</sub> O <sub>3</sub> on Ti <sub>2</sub> AlC(0001) by reactive high-power impulse magnetron sputtering. <b>2014</b> , 4, 017138			4
530	Ionized sputtering with a pulsed hollow cathode magnetron. <i>Thin Solid Films</i> , <b>2014</b> , 572, 147-152	2.2		3
529	New Plasma Surface Processing Technology and its Application. <b>2014</b> , 697, 21-26			
528	Stable and high-quality Al-doped ZnO films with ICP-assisted facing targets sputtering at low temperature. <b>2014</b> , 1, 025003			2
527	Atomistic view on thin film nucleation and growth by using highly ionized and pulsed vapour fluxes. <b>2014</b> , 257, 326-332			11
526	High-rate deposition of AlTiN and related coatings with dense morphology by central cylindrical direct current magnetron sputtering. <i>Thin Solid Films</i> , <b>2014</b> , 556, 361-368	2.2		14
525	Oxidation behavior of magnetron sputtered double layer coatings containing molybdenum, silicon and boron. <b>2014</b> , 48, 19-27			39
524	Film deposition using 1-inch-sized HIPIMS system [Toward minimal fabrication semiconductor production system. <b>2014</b> , 250, 26-31			5
523	Upscaling plasma deposition: The influence of technological parameters. <b>2014</b> , 242, 237-245			12
522	Principles for designing sputtering-based strategies for high-rate synthesis of dense and hard hydrogenated amorphous carbon thin films. <b>2014</b> , 44, 117-122			14
521	Elaboration of a wide range of TiO <sub>2</sub> micro/nanostructures by high power impulse inverted cylindrical magnetron sputtering. <b>2014</b> , 47, 195201			8
520	Investigation of ionized metal flux in enhanced high power impulse magnetron sputtering discharges. <b>2014</b> , 115, 153301			17
519	Comparison of the structural properties and residual stress of AlN films deposited by dc magnetron sputtering and high power impulse magnetron sputtering at different working pressures. <i>Thin Solid Films</i> , <b>2014</b> , 550, 264-267	2.2		66

518	Sputtering and Thin Film Deposition. <b>2014</b> , 93-170	7
517	Kinetics of plasma species and their ionization in short-HiPIMS by particle modeling. <b>2014</b> , 255, 52-61	27
516	Investigation of ionized metal flux fraction in HiPIMS discharges with Ti and Ni targets. <b>2014</b> , 238, 152-157	48
515	Enhanced ionization sputtering: A concept for superior industrial coatings. <b>2014</b> , 255, 43-51	28
514	Corrosion protection with hard coatings on steel: Past approaches and current research efforts. <b>2014</b> , 257, 182-205	85
513	Effect of peak target power on the properties of Cr thin films sputtered by HiPIMS in deep oscillation magnetron sputtering (DOMS) mode. <b>2014</b> , 258, 249-256	49
512	Comparative analysis of Cr-B coatings deposited by magnetron sputtering in DC and HiPIMS modes. <b>2014</b> , 40, 614-617	7
511	Review of the progress in preparing nano TiO <sub>2</sub> : an important environmental engineering material. <b>2014</b> , 26, 2139-77	158
510	Unravelling the physical mechanisms that determine microstructural evolution of ultrathin Volmer-Weber films. <b>2014</b> , 116, 044302	33
509	Molecular dynamics simulations of clusters and thin film growth in the context of plasma sputtering deposition. <b>2014</b> , 47, 224004	30
508	Plasma diagnostics for understanding the plasma-surface interaction in HiPIMS discharges: a review. <b>2014</b> , 47, 224001	101
507	High-fluence hyperthermal ion irradiation of gallium nitride surfaces at elevated temperatures. <b>2014</b> , 317, 811-817	5
506	Time resolved tunable diode laser absorption spectroscopy of dual High Power Impulse Magnetron Sputtering discharges. <b>2014</b> , 32, 1460337	
505	An investigation of c-HiPIMS discharges during titanium deposition. <b>2014</b> , 258, 631-638	17
504	Optical absorption spectroscopy of facing targets and conventional magnetron sputtering during process of Al-doped ZnO films. <b>2014</b> , 254, 371-375	6
503	Titanium oxide thin film growth by magnetron sputtering: Total energy flux and its relationship with the phase constitution. <b>2014</b> , 254, 291-297	21
502	On the road to self-sputtering in high power impulse magnetron sputtering: particle balance and discharge characteristics. <b>2014</b> , 23, 025017	38
501	A review comparing cathodic arcs and high power impulse magnetron sputtering (HiPIMS). <b>2014</b> , 257, 308-325	156

500	Atomic layer deposition of Cu with a carbene-stabilized Cu(I) silylamide. <b>2014</b> , 2, 9205-9214		16
499	Improving HiPIMS deposition rates by hybrid RF/HiPIMS co-sputtering, and its relevance for NbSi films. <b>2014</b> , 250, 32-36		22
498	Correlation between mass-spectrometer measurements and thin film characteristics using dcMS and HiPIMS discharges. <b>2014</b> , 250, 52-56		32
497	Observation of multiple charge states and high ion energies in high-power impulse magnetron sputtering (HiPIMS) and burst HiPIMS using a LaB6target. <b>2014</b> , 23, 035001		16
496	Formation of hydrogenated diamond-like carbon films by reactive Ar/CH4high-power impulse magnetron sputtering. <b>2014</b> , 53, 090301		11
495	Spatial Distribution of a High-Power Impulse Magnetron Sputtering Glow Plasma by a Controlled Unbalanced Magnetic Field. <b>2014</b> , 42, 2786-2787		4
494	Effect of duty cycles on the deposition and characteristics of high power impulse magnetron sputtering deposited TiN thin films. <b>2014</b> , 259, 232-237		47
493	Optimisation of HiPIMS photocatalytic titania coatings for low temperature deposition. <b>2014</b> , 250, 7-13		27
492	Influence of negative bias voltage and deposition temperature on microstructure and properties of superhard TiB2 coatings deposited by high power impulse magnetron sputtering. <b>2014</b> , 253, 115-122		50
491	Structural and optical properties of zirconia thin films deposited by reactive high-power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2014</b> , 570, 404-411	2.2	18
490	A comparative research on TiAlN coatings reactively sputtered from powder and from smelting TiAl targets at various nitrogen flow rates. <b>2014</b> , 313, 10-18		20
489	Effect of the degree of high power impulse magnetron sputtering utilisation on the structure and properties of TiN films. <i>Thin Solid Films</i> , <b>2014</b> , 562, 132-139	2.2	29
488	Morphology of Tantalum Nitride Thin Films Grown on Fused Quartz by Reactive High Power Impulse Magnetron Sputtering (HiPIMS). <b>2015</b> , 1803, 1		
487	Features of the growth of amorphous silicon thin films synthesized by magnetron sputtering. <b>2015</b> , 9, 555-557		4
486	Comparison of Additive Manufacturing Materials and Human Tissues in Computed Tomography Scanning. <b>2015</b> , 369-384		1
485	A modified Katsumata probe--Ion sensitive probe for measurement in non-magnetized plasmas. <b>2015</b> , 86, 073510		3
484	Observation of a periodic runaway in the reactive Ar/O2 high power impulse magnetron sputtering discharge. <b>2015</b> , 5, 117240		2
483	HiPIMS in full face erosion circular cathode for semiconductor applications. <b>2015</b> ,		1

482	Description and Test of a New Multilayer Thin Film Vapor Deposition Apparatus for Organic Semiconductor Materials. <b>2015</b> , 60, 3776-3791	20
481	An Overview on Time-Resolved Optical Analysis of HiPIMS Discharge. <b>2015</b> , 12, 1010-1027	21
480	Coatings and Surface Engineering: Physical Vapor Deposition. <b>2015</b> , 1-20	
479	Fiber Bragg Grating Sensors for Distributed Torsional Strain Measurements in a (RE) BCO Tape. <b>2015</b> , 15, 2023-2030	21
478	Ionization of sputtered Ti, Al, and C coupled with plasma characterization in HiPIMS. <b>2015</b> , 24, 035018	40
477	Particle visualization in high-power impulse magnetron sputtering. II. Absolute density dynamics. <b>2015</b> , 117, 163303	20
476	Co-deposition of band-gap tuned Zn <sub>1-x</sub> Mg <sub>x</sub> O using high impulse power- and dc-magnetron sputtering. <b>2015</b> , 48, 135301	5
475	The use of hollow cathodes in deposition processes: A critical review. <i>Thin Solid Films</i> , <b>2015</b> , 579, 174-198.2	82
474	Effect of pulsed off-times on the reactive HiPIMS preparation of zirconia thin films. <b>2015</b> , 118, 38-42	9
473	DLC films deposited on rubber substrates: a review. <b>2015</b> , 31, 1-10	16
472	The role of pulse length in target poisoning during reactive HiPIMS: application to amorphous HfO <sub>2</sub> . <b>2015</b> , 24, 035015	29
471	The effect of changing the magnetic field strength on HiPIMS deposition rates. <b>2015</b> , 48, 215202	40
470	An overview of feasibilities and challenge of conductive cellulose for rechargeable lithium based battery. <b>2015</b> , 50, 204-213	36
469	On the Impact of Electron Temperature in Magnetron Sputtering Benchmarked with Energy Flux Measurements. <b>2015</b> , 55, 701-713	13
468	Effect of the nitrogen flow rate on the microhardness and microstructure of TiN coatings deposited by high power pulsed magnetron sputtering. <b>2015</b> , 9, 980-983	1
467	Optimization of deposition rate in HiPIMS by controlling the peak target current. <b>2015</b> , 48, 495204	31
466	Determination of titanium atom and ion densities in sputter deposition plasmas by optical emission spectroscopy. <b>2015</b> , 24, 065022	15
465	Low Temperature Coating Deriving from Metal-Organic Precursors. <b>2015</b> , 93-134	2

464	Low temperature fabrication of indium-tin oxide film by using ionized physical vapor deposition method. <b>2015</b> , 266, 10-13	6
463	Oxidation behavior of pack-cemented SiB oxidation protection coatings for MoSiB alloys at 1300 °C. <b>2015</b> , 266, 57-63	38
462	Formation of amorphous carbon nitride films by reactive Ar/N <sub>2</sub> high-power impulse magnetron sputtering. <b>2015</b> , 54, 01AD06	4
461	Tailoring the nanostructure of TiSiN thin films by HiPIMS in deep oscillation magnetron sputtering (DOMS) mode. <b>2015</b> , 264, 140-149	37
460	Nanostructured chromium coatings with enhanced mechanical properties and corrosion resistance. <b>2015</b> , 265, 154-159	17
459	Temporal and spatial distributions of carbon shunting arc plasma. <b>2015</b> , 54, 01AA04	1
458	Photoanodes with Fully Controllable Texture: The Enhanced Water Splitting Efficiency of Thin Hematite Films Exhibiting Solely (110) Crystal Orientation. <b>2015</b> , 9, 7113-23	85
457	Flexible hard nanocomposite coatings. <b>2015</b> , 5, 60482-60495	130
456	Argon metastables in HiPIMS: validation of the ionization region model by direct comparison to time resolved tunable diode-laser diagnostics. <b>2015</b> , 24, 045011	24
455	High power pulsed magnetron sputtering: A method to increase deposition rate. <b>2015</b> , 33, 031304	22
454	Properties of TiO <sub>2</sub> films deposited on flexible substrates using direct current magnetron sputtering and using high power impulse magnetron sputtering. <b>2015</b> , 117, 1-7	21
453	Modulate the deposition rate through changing the combination of frequency and pulse width at constant duty cycle. <b>2015</b> , 281, 27-34	9
452	The impact of substrate bias on a remote plasma sputter coating process for conformal coverage of trenches and 3D structures. <b>2015</b> , 48, 335303	14
451	Particle visualization in high-power impulse magnetron sputtering. I. 2D density mapping. <b>2015</b> , 117, 163302	30
450	Industrial-scale high power impulse magnetron sputtering of yttria-stabilized zirconia on porous NiO/YSZ fuel cell anodes. <b>2015</b> , 281, 150-156	17
449	Influence of composition on the wear properties of boron carbonitride (BCN) coatings deposited by high power impulse magnetron sputtering. <b>2015</b> , 284, 94-100	14
448	Continuous-flow hydrothermal synthesis for the production of inorganic nanomaterials. <b>2015</b> , 373,	50
447	The pressure dependence of the deposition rate in a magnetron sputtering system. <i>Thin Solid Films</i> , <b>2015</b> , 574, 52-59	2.2 17

446	Thermal Shock and Oxidation Behavior of HiPIMS TiAlN Coatings Grown on Ti-48Al-2Cr-2Nb Intermetallic Alloy. <b>2016</b> , 9,	9
445	Mechanically-Tunable Photonic Devices with On-Chip Integrated MEMS/NEMS Actuators. <b>2016</b> , 7,	30
444	Fabricating Metallic Circuit Patterns on Polymer Substrates through Laser and Selective Metallization. <b>2016</b> , 8, 33999-34007	32
443	Additional control of bombardment by deep oscillation magnetron sputtering: Effect on the microstructure and topography of Cr thin films. <i>Thin Solid Films</i> , <b>2016</b> , 619, 250-260	2.2 14
442	Flash post-discharge emission in a reactive HiPIMS process. <b>2016</b> , 109, 114101	7
441	The impact of medium frequency pulsed magnetron discharge power on the single probe Langmuir measurements and resulted plasma parameters. <b>2016</b> , 34, 374-385	5
440	The radiofrequency magnetic dipole discharge. <b>2016</b> , 23, 053511	1
439	An efficient way to evidence and to measure the metal ion fraction in high power impulse magnetron sputtering (HiPIMS) post-discharge with Pt, Au, Pd and mixed targets. <b>2016</b> , 82,	3
438	Study of cobalt mononitride thin films prepared using DC and high power impulse magnetron sputtering. <b>2016</b> ,	2
437	Time-resolved ion flux and impedance measurements for process characterization in reactive high-power impulse magnetron sputtering. <b>2016</b> , 34, 041305	11
436	Synthesis of hydrogenated diamondlike carbon thin films using neon/acetylene based high power impulse magnetron sputtering discharges. <b>2016</b> , 34, 061504	15
435	Correlative theoretical and experimental investigation of the formation of ALYB14 and competing phases. <b>2016</b> , 119, 085307	6
434	Atomic layer deposition of ultrathin Cu <sub>2</sub> O and subsequent reduction to Cu studied by in situ x-ray photoelectron spectroscopy. <b>2016</b> , 34, 01A111	6
433	Pulsed external magnetic fields increase the deposition rate in reactive HiPIMS while preserving stoichiometry: An application to amorphous HfO <sub>2</sub> . <b>2016</b> , 120, 103301	5
432	Mixed-mode high-power impulse magnetron sputter deposition of tetrahedral amorphous carbon with pulse-length control of ionization. <b>2016</b> , 119, 155303	25
431	Low electrical resistivity in thin and ultrathin copper layers grown by high power impulse magnetron sputtering. <b>2016</b> , 34, 051506	31
430	In-situ observation of self-cleansing phenomena during ultra-high vacuum anneal of transition metal nitride thin films: Prospects for non-destructive photoelectron spectroscopy. <b>2016</b> , 109, 211602	19
429	Comparative Study of Cu Films Prepared by DC, High-Power Pulsed and Burst Magnetron Sputtering. <b>2016</b> , 45, 4052-4060	16

428	Nitrogen-doped bcc-Cr films: Combining ceramic hardness with metallic toughness and conductivity. <b>2016</b> , 122, 40-44	29
427	Extended Smoluchowski Model for the Formation of Size-Selected Silver Nanoclusters Generated via Modulated Pulsed Power Magnetron Sputtering. <b>2016</b> , 120, 5667-5672	19
426	Structure, mechanical and corrosion properties of TiN films deposited on stainless steel substrates with different inclination angles by DCMS and HPPMS. <b>2016</b> , 292, 54-62	30
425	Influence of oxygen/argon reaction gas ratio on optical and electrical characteristics of amorphous IGZO thin films coated by HiPIMS process. <b>2016</b> , 303, 209-214	17
424	Mass spectrometry analyzes to highlight differences between short and long HiPIMS discharges. <b>2016</b> , 390, 497-505	18
423	An ionization region model of the reactive Ar/O <sub>2</sub> high power impulse magnetron sputtering discharge. <b>2016</b> , 25, 065004	73
422	Nanowire Array Structures for Photocatalytic Energy Conversion and Utilization: A Review of Design Concepts, Assembly and Integration, and Function Enabling. <b>2016</b> , 6, 1600683	72
421	Synthesis of a-C coatings by HPPMS using Ar, Ne and He as process gases. <b>2016</b> , 308, 80-89	14
420	The improvement of high power impulse magnetron sputtering performance by an external unbalanced magnetic field. <b>2016</b> , 133, 98-104	11
419	Properties of diamond-like carbon films prepared by high power pulsed sputtering with two facing targets. <b>2016</b> , 307, 1053-1058	10
418	Preparation of diamond-like carbon films using reactive Ar/CH <sub>4</sub> high power impulse magnetron sputtering system with negative pulse voltage source for substrate. <b>2016</b> , 55, 046201	4
417	Chemical and Physical Modification of Surfaces. <b>2016</b> , 23-66	6
416	Epitaxial and textured TiN thin films grown on MgO(1 0 0) by reactive HiPIMS: the impact of charging on epitaxial to textured growth crossover. <b>2016</b> , 49, 455301	5
415	Characterization of electromagnetic fluctuations in a HiPIMS plasma. <b>2016</b> , 25, 065016	6
414	( $\begin{array}{ccc} 1 & 0 & \\ \hline & & 1 \end{array}$ ) preferential orientation of polycrystalline AlN grown on SiO <sub>2</sub> /Si wafers by reactive sputter magnetron technique. <b>2016</b> , 74, 10301	2
413	Magnetron sputtering of copper on thermosensitive polymer materials of the gas centrifuge rotors. <b>2016</b> , 751, 012013	0
412	Preparation of hydrogenated diamond-like carbon films using high-density pulsed plasmas of Ar/C <sub>2</sub> H <sub>2</sub> and Ne/C <sub>2</sub> H <sub>2</sub> mixture. <b>2016</b> , 55, 07LE02	6
411	Plasma synthesis of photocatalytic TiO <sub>x</sub> thin films. <b>2016</b> , 25, 033003	8



410	OES studies of plasmoids distribution during the coating deposition with the use of the Impulse Plasma Deposition method controlled by the gas injection. <b>2016</b> , 128, 259-264	7
409	Influence of ionisation zone motion in high power impulse magnetron sputtering on angular ion flux and NbO <sub>x</sub> film growth. <b>2016</b> , 25, 015022	22
408	NbTiN thin films deposited by hybrid HiPIMS/DC magnetron co-sputtering. <b>2016</b> , 295, 99-106	15
407	Modeling of evolution of growing coating composition. <b>2016</b> , 227, 75-104	4
406	Fabrication of diamond-like carbon films using short-pulse HiPIMS. <b>2016</b> , 286, 239-245	44
405	Effect of DC input power and nitrogen ratio on the deposition of Ti 1/2 Al x N thin films using high power impulse magnetron sputtering technique. <b>2016</b> , 303, 48-53	10
404	Reactive processes in the high target utilization sputtering (HiTUS) W-C based coatings. <b>2016</b> , 36, 3029-3040	16
403	HiPIMS ITO films from a rotating cylindrical cathode. <b>2016</b> , 290, 65-72	13
402	Effect of bias voltage on the microstructure and hardness of Ti-Si-N films deposited by using high-power impulse magnetron sputtering. <b>2016</b> , 68, 351-356	4
401	Process stabilization by peak current regulation in reactive high-power impulse magnetron sputtering of hafnium nitride. <b>2016</b> , 49, 065202	19
400	Low-temperature synthesis of thermochromic vanadium dioxide thin films by reactive high power impulse magnetron sputtering. <b>2016</b> , 149, 137-144	61
399	Tribological behavior of TiN and Ti (Si,C)N coatings on cold sprayed Ti substrates. <b>2016</b> , 291, 264-275	18
398	Role of ion bombardment, film thickness and temperature of annealing on PEC activity of very-thin film hematite photoanodes deposited by advanced magnetron sputtering. <b>2016</b> , 41, 11547-11557	8
397	Two dimensional spatial Argon metastable dynamics in HiPIMS discharges. <b>2016</b> , 49, 125203	17
396	CrN thin films deposited by HiPIMS in DOMS mode. <b>2016</b> , 291, 365-375	51
395	On reactive high power impulse magnetron sputtering. <b>2016</b> , 58, 014002	29
394	Tribocorrosion response in biological environments of multilayer TaN films deposited by HPPMS. <b>2016</b> , 295, 60-69	15
393	Peak amplitude of target current determines deposition rate loss during high power pulsed magnetron sputtering. <b>2016</b> , 124, 1-4	40

392	Replication of microstructured tools for electrochemical machining applications. <b>2016</b> , 82, 197-209	2
391	Direct metallization of PMMA with aluminum films using HIPIMS. <b>2016</b> , 290, 77-81	10
390	Deposition of diamond-like carbon thin films by the high power impulse magnetron sputtering method. <b>2017</b> , 72, 71-76	11
389	Effect of nitrogen-argon flow ratio on the microstructural and mechanical properties of AlSiN thin films prepared by high power impulse magnetron sputtering. <b>2017</b> , 320, 138-145	17
388	Technical Note:Corrosion Behavior of Post-Deposition Polished Droplet-Embedded Arc Evaporated and Droplet-Free High Power Impulse Magnetron Sputtering/Direct Current Magnetron Sputtering Coatings. <b>2017</b> , 73, 685-693	4
387	Superhard nanocomposite nc-TiC/a-C:H coatings: The effect of HiPIMS on coating microstructure and mechanical properties. <b>2017</b> , 311, 257-267	43
386	Comparison between absolute densities of metastable state and ground state of atoms in CZTS sputtering plasmas. <b>2017</b> ,	
385	Ground state atomic oxygen in high-power impulse magnetron sputtering: a quantitative study. <b>2017</b> , 50, 075204	11
384	Effects of magnetic field strength and deposition pressure on the properties of TiN films produced by high power pulsed magnetron sputtering (HPPMS). <b>2017</b> , 315, 258-267	23
383	Energetic and Structural Insights into the Molecular and Supramolecular Properties of Rubrene. <b>2017</b> , 2, 1759-1769	4
382	Unprecedented Al supersaturation in single-phase rock salt structure VAlN films by Al+ subplantation. <b>2017</b> , 121, 171907	28
381	The behaviour of arcs in carbon mixed-mode high-power impulse magnetron sputtering. <b>2017</b> , 50, 145205	5
380	Quantification of the hysteresis and related phenomena in reactive HiPIMS discharges. <b>2017</b> , 121, 171905	14
379	Angular dependence of plasma parameters and film properties during high power impulse magnetron sputtering for deposition of Ti and TiO <sub>2</sub> layers. <b>2017</b> , 121, 171906	19
378	Structure of CuN layers synthesized by pulsed magnetron sputtering with variable frequency of plasma generation. <b>2017</b> , 409, 167-170	7
377	Combined magnetron sputtering and pulsed laser deposition of TiO and BFCO thin films. <b>2017</b> , 7, 2503	23
376	In-Flight Size Focusing of Aerosols by a Low Temperature Plasma. <b>2017</b> , 121, 12936-12944	16
375	Correlative plasma-surface model for metastable Cr-Al-N: Frenkel pair formation and influence of the stress state on the elastic properties. <b>2017</b> , 121, 215108	21

374	Nanomanufacturing Perspective and applications. <b>2017</b> , 66, 683-705		83
373	Cathodoluminescence studies of defects in coated boron nitride. <b>2017</b> , 50, 295302		1
372	Fabrication of Mo microcones for volcano-structured double-gate Spindt-type emitter cathodes using triode high power pulsed magnetron sputtering. <b>2017</b> , 35, 022204		5
371	Enhanced oxidation of TiO <sub>2</sub> films prepared by high power impulse magnetron sputtering running in metallic mode. <b>2017</b> , 121, 171914		9
370	Crystalline WS via Room Temperature, Solution-Phase Synthesis. <b>2017</b> , 56, 106-109		2
369	Microstructure and mechanical properties of (AlTi) <sub>x</sub> N <sub>1-x</sub> films by magnetic-field-enhanced high power impulse magnetron sputtering. <b>2017</b> , 35, 021402		6
368	Simultaneous electrical and optical study of spoke rotation, merging and splitting in HiPIMS plasma. <b>2017</b> , 50, 015209		13
367	Advanced deposition of hard a-C:Me coatings by HPPMS using Ne as process gas. <b>2017</b> , 332, 242-252		6
366	Plasma characterization in reactive sputtering processes of Ti in Ar/O <sub>2</sub> mixtures operated in metal, transition and poisoned modes: a comparison between direct current and high-power impulse magnetron discharges. <b>2017</b> , 71, 1		4
365	Foundations of DC plasma sources. <b>2017</b> , 26, 123001		42
364	Spectroscopic measurement of the degree of ionization in a helium electron cyclotron resonance discharge in a simple cusp field. <b>2017</b> , 111, 074101		4
363	Foundations of low-temperature plasma physics—An introduction. <b>2017</b> , 26, 113001		43
362	Benefits of energetic ion bombardment for tailoring stress and microstructural evolution during growth of Cu thin films. <b>2017</b> , 141, 120-130		39
361	Review Article: Tracing the recorded history of thin-film sputter deposition: From the 1800s to 2017. <b>2017</b> , 35, 05C204		131
360	Control of the metal/gas ion ratio incident at the substrate plane during high-power impulse magnetron sputtering of transition metals in Ar. <i>Thin Solid Films</i> , <b>2017</b> , 642, 36-40	2.2	16
359	Ion induced stress relaxation in dense sputter-deposited DLC thin films. <b>2017</b> , 111, 051902		11
358	Improvement on wear resistance of 304 stainless steel via Cr-C-O Arc-coatings. <b>2017</b> ,		
357	Atomic-scale characterization of plasma-induced damage in plasma-enhanced atomic layer deposition. <b>2017</b> , 425, 781-787		3

356	Vanadium and vanadium nitride thin films grown by high power impulse magnetron sputtering. <b>2017</b> , 50, 505302		14
355	Variation of local chemical compositions of (Ti, Al)N films on inner wall of small hole deposited by high-power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2017</b> , 644, 99-105	2.2	3
354	Sensors, data storage and communication technologies. <b>2017</b> , 7-278		
353	Ti atom and Ti ion number density evolution in standard and multi-pulse HiPIMS. <b>2017</b> , 50, 365202		16
352	Extended metastable Al solubility in cubic VAlN by metal-ion bombardment during pulsed magnetron sputtering: film stress vs subplantation. <b>2017</b> , 122, 025304		15
351	Particle-balance models for pulsed sputtering magnetrons. <b>2017</b> , 50, 354003		31
350	Reactive ion beam sputtering of Ti: Influence of process parameters on angular and energy distribution of sputtered and backscattered particles. <b>2017</b> , 35, 041001		15
349	Very thin thermally stable TiO <sub>2</sub> blocking layers with enhanced electron transfer for solar cells. <b>2017</b> , 9, 122-129		11
348	Conductive diamond-like carbon films prepared by high power pulsed magnetron sputtering with bipolar type plasma based ion implantation system. <b>2017</b> , 77, 122-130		11
347	Phase tailoring of tantalum thin films deposited in deep oscillation magnetron sputtering mode. <b>2017</b> , 314, 97-104		21
346	Pressure dependence of (Ti, Al)N film growth on inner walls of small holes in high-power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2017</b> , 624, 189-196	2.2	16
345	Fabrication Method for Nanocluster Superatoms with High-Power Impulse Magnetron Sputtering. <b>2017</b> , 60, 352-361		
344	Preparation of Diamond Like Carbon (DLC) Films by Hot Cathode Penning Ionization Gauge Type Plasma-Enhanced Chemical Vapor Deposition Method. <b>2017</b> , 60, 85-91		1
343	Electrochemical Synthesis of Zirconium n-Butoxide. <b>2017</b> , 85, 2-6		1
342	Decomposition of palladium acetate and C60 fullerite during thermal evaporation in PVD process. <b>2017</b> , 35, 594-600		3
341	Electrical and plasma characteristics of 150 kHz band high-power burst inductively coupled plasma. <b>2017</b> ,		
340	Transition Mode Control in Reactive High-Power Impulse Magnetron Sputtering (R-HiPIMS). <b>2017</b> , 60, 346-351		2
339	Influence of preparation conditions on structure and photosensing properties of GeSi/TiO <sub>2</sub> multilayers. <b>2017</b> ,		2

338	Methods of nanostructured coatings deposition by magnetron sputtering and cathodic arc evaporation. <b>2017</b> , 11, 36	1
337	The Target Material Influence on the Current Pulse during High Power Pulsed Magnetron Sputtering. <b>2017</b> , 5,	7
336	Ta <sub>2</sub> N <sub>3</sub> Thin Films Fabricated through HIPIMS/RFMS Co-Sputtering. <b>2017</b> , 7, 189	5
335	Effect of HPPMS Pulse-Frequency on Plasma Discharge and Deposited AlTiN Coating Properties. <b>2017</b> , 2017, 1-18	5
334	Computer Simulation of Metal Ions Transport to Uneven Substrates during Ionized Plasma Vapour Deposition. <b>2017</b> , 2017, 1-7	
333	Investigation of the Influence of Ni Doping on the Structure and Hardness of Ti-Ni-C Coatings. <b>2017</b> , 2017, 1-13	3
332	Ionization of sputtered carbon species by high-power inductively-coupled impulse sputtering (ICIS). <b>2018</b> , 153, 195-203	5
331	Manufacturing and Characterization of a Carbon-Based Amorphous (a-CN <sub>X</sub> ) Coating Material. <b>2018</b> , 1, 156-170	1
330	Effect of synchronized bias in the deposition of TiB <sub>2</sub> thin films using high power impulse magnetron sputtering. <b>2018</b> , 36, 031510	14
329	Direct calorimetric measurements in a PBI and deposition (PBI&D) experiment with a HiPIMS plasma source. <b>2018</b> , 352, 663-670	1
328	Growth (AlCrNbSiTiV)N thin films on the interrupted turning and properties using DCMS and HIPIMS system. <b>2018</b> , 440, 1-7	26
327	A thermal study of amorphous and textured carbon and carbon nitride thin films via transient grating spectroscopy. <b>2018</b> , 130, 355-361	4
326	A comparative study of thick TiSiCN nanocomposite coatings deposited by dcMS and HiPIMS with and without PEMS assistance. <b>2018</b> , 338, 84-95	19
325	Plasma studies of a linear magnetron operating in the range from DC to HiPIMS. <b>2018</b> , 123, 043302	17
324	Influence of reactive oxygen species during deposition of iron oxide films by high power impulse magnetron sputtering. <b>2018</b> , 51, 095205	7
323	Highly conductive ultrathin Co films by high-power impulse magnetron sputtering. <b>2018</b> , 112, 043103	14
322	Foundations of low-temperature plasma enhanced materials synthesis and etching. <b>2018</b> , 27, 023001	62
321	Time evolution of ion fluxes incident at the substrate plane during reactive high-power impulse magnetron sputtering of groups IVb and VIb transition metals in Ar/N <sub>2</sub> . <b>2018</b> , 36, 020602	23

320	Superimposed high power impulse and middle frequency magnetron sputtering: Role of pulse duration and average power of middle frequency. <b>2018</b> , 352, 680-689	19
319	Si micro-cantilever sensor chips for space-resolved stress measurements in physical and plasma-enhanced chemical vapour deposition. <b>2018</b> , 270, 271-277	8
318	Silicon carbonitride thin films deposited by reactive high power impulse magnetron sputtering. <b>2018</b> , 335, 248-256	9
317	Low-temperature deposition of nanocrystalline Al <sub>2</sub> O <sub>3</sub> films by ion source-assisted magnetron sputtering. <b>2018</b> , 149, 284-290	20
316	Improvement of discharge and microstructure of Cr-C-N coatings by electromagnetically enhanced magnetron sputtering. <b>2018</b> , 148, 98-105	2
315	Microstructure of laser-clad Ni60 cladding layers added with different amounts of rare-earth oxides on 6063 Al alloys. <b>2018</b> , 740, 1099-1107	50
314	High power impulse magnetron sputtering and its applications. <b>2018</b> , 20, 065501	9
313	Thermodynamic limit for synthesis of metastable inorganic materials. <b>2018</b> , 4, eaaq0148	106
312	Growth of HfN thin films by reactive high power impulse magnetron sputtering. <b>2018</b> , 8, 035124	7
311	Passive inference of collision frequency in magnetized capacitive argon discharge. <b>2018</b> , 25, 033506	5
310	First measurements of the temporal evolution of the plasma density in HiPIMS discharges using THz time domain spectroscopy. <b>2018</b> , 27, 035006	21
309	Activated Sputter Deposition of ta-C Films. <b>2018</b> , 679-719	
308	Reduced atomic shadowing in HiPIMS: Role of the thermalized metal ions. <b>2018</b> , 433, 934-944	21
307	On the role of the energetic species in TiN thin film growth by reactive deep oscillation magnetron sputtering in Ar/N <sub>2</sub> . <i>Thin Solid Films</i> , <b>2018</b> , 645, 253-264	2.2 15
306	Hard and dense diamond like carbon coatings deposited by deep oscillations magnetron sputtering. <b>2018</b> , 336, 92-98	19
305	Pulsed Magnetron Sputtering: The Role of the Applied Power on W Coatings Properties. <b>2018</b> , 183-190	
304	Towards high quality ITO coatings: The impact of nitrogen admixture in HiPIMS discharges. <b>2018</b> , 335, 126-133	12
303	Preparation of TiN films by reactive high-power pulsed sputtering Penning discharges. <b>2018</b> , 57, 06JE02	3

302	Effects of rf magnetic field on upstream dielectric multipactor. <b>2018</b> , 27, 125006	5
301	Noncontact measurement of substrate temperature by optical low-coherence interferometry in high-power pulsed magnetron sputtering. <b>2018</b> , 57, 01AC03	3
300	Formation of Superatom Monolayer Using Nanocluster Ion Source Based on High-Power Impulse Magnetron Sputtering. <b>2018</b> , 442-451	
299	Mechanical Properties of ZrBiN Films Fabricated through HiPIMS/RFMS Co-Sputtering. <b>2018</b> , 8, 263	5
298	Conformal Physical Vapor Deposition Assisted by Atomic Layer Deposition and Its Application for Stretchable Conductors. <b>2018</b> , 5, 1801379	1
297	Surface erosion of hot Cr target and deposition rates of Cr coatings in high power pulsed magnetron sputtering. <b>2018</b> , 354, 161-168	8
296	On three different ways to quantify the degree of ionization in sputtering magnetrons. <b>2018</b> , 27, 105005	24
295	Physical Sputtering and Sputter Deposition. <b>2018</b> , 87-149	3
294	Ion Plating. <b>2018</b> , 197-220	
293	2D PIC-MCC simulations of magnetron plasma in HiPIMS regime with external circuit. <b>2018</b> , 27, 105009	22
292	Preparation of titanium carbon nitride films by reactive high power pulsed sputtering Penning discharges. <b>2018</b> , 157, 192-201	5
291	Characterization of advanced coating architectures deposited by an arc-HiPIMS hybrid process. <b>2018</b> , 350, 154-160	5
290	Linear magnetron HiPIMS high deposition rate magnet pack. <b>2018</b> , 155, 559-565	8
289	Comparison of magnetic and structural properties of permalloy Ni80Fe20 grown by dc and high power impulse magnetron sputtering. <b>2018</b> , 51, 285005	10
288	Advanced interconnect technology and reliability. <b>2018</b> , 215-247	
287	Sputter Processing. <b>2018</b> , 195-230	11
286	Patterned Nanobrush Nature Mimics with Unprecedented Water-Harvesting Efficiency. <b>2018</b> , 5, 1800667	15
285	Mechanical properties of Cr-O-N coatings deposited by cathodic arc evaporation. <b>2018</b> , 156, 97-107	20

284	Effect of working power and pressure on plasma properties during the deposition of TiN films in reactive magnetron sputtering plasma measured using Langmuir probe measurement. <b>2018</b> , 995, 012068		1
283	Effect of substrate bias on properties of HiPIMS deposited vanadium nitride films. <i>Thin Solid Films</i> , <b>2018</b> , 663, 126-130	2.2	15
282	High purity and crystalline thin films of methylammonium lead iodide perovskites by a vapor deposition approach. <i>Thin Solid Films</i> , <b>2018</b> , 664, 12-18	2.2	8
281	Large-Scale Fabrication of High-Performance Ionic Polymer-Metal Composite Flexible Sensors by in Situ Plasma Etching and Magnetron Sputtering. <b>2018</b> , 3, 9146-9154		14
280	On the Effect of Aluminum on the Microstructure and Mechanical Properties of CrN Coatings deposited by HiPIMS. <b>2018</b> , 21,		5
279	Ion density evolution in a high-power sputtering discharge with bipolar pulsing. <b>2018</b> , 112, 234103		33
278	Enhanced mechanical and electrochemical properties of TiN <sub>x</sub> thin films prepared by magnetron sputtering with an anode layer ion source. <b>2019</b> , 365, 253-260		3
277	Advances in catalytic/photocatalytic bacterial inactivation by nano Ag and Cu coated surfaces and medical devices. <b>2019</b> , 240, 291-318		65
276	Modification of magnetron sputter deposition of nc-WC/a-C(:H) coatings with an additional RF discharge. <b>2019</b> , 98, 107509		7
275	Advanced Surface Treatments on Titanium and Titanium Alloys Focused on Electrochemical and Physical Technologies for Biomedical Applications. <b>2019</b> ,		6
274	The comparative study of electrical, optical and catalytic properties of Co <sub>3</sub> O <sub>4</sub> thin nanocrystalline films prepared by reactive high-power impulse and radio frequency magnetron sputtering. <i>Thin Solid Films</i> , <b>2019</b> , 686, 137427	2.2	8
273	Microstructure and mechanical properties of ta-C films by pulse-enhanced cathodic arc evaporation: Effect of pulsed current. <b>2019</b> , 98, 107479		8
272	Overcoming the insulating materials limitation in HiPIMS: Ion-assisted deposition of DLC coatings using bipolar HiPIMS. <b>2019</b> , 494, 871-879		19
271	Preparation and performance of nanometric Ti/TiN multi-layer physical vapor deposited coating on 316L stainless steel as bipolar plate for proton exchange membrane fuel cells. <b>2019</b> , 435, 226818		33
270	Paradigm shift in thin-film growth by magnetron sputtering: From gas-ion to metal-ion irradiation of the growing film. <b>2019</b> , 37, 060801		55
269	Improving the mechanical and anti-wear properties of AlTiN coatings by the hybrid arc and sputtering deposition. <b>2019</b> , 378, 125022		15
268	Deposition of Fe/Nb multilayers and Fe/Nb/Fe trilayers using HiPIMS: XRR measurements for interface diffusion study. <b>2019</b> ,		
267	Atomic layer deposition of metals: Precursors and film growth. <b>2019</b> , 6, 041309		38



266	Time-resolved optical emission spectroscopy of a unipolar and a bipolar pulsed magnetron sputtering discharge in an argon/oxygen gas mixture with a cobalt target. <b>2019</b> , 28, 115020	18
265	Differences in surface reactivity in two synthetic routes between HiPIMS and DC magnetron sputtered carbon. <b>2019</b> , 378, 125003	2
264	Effect of Bias Voltage on Mechanical Properties of HiPIMS/RFMS Cosputtered Zr-Si-N Films. <b>2019</b> , 12,	3
263	Thick CrN/AlN superlattice coatings deposited by hot filament assisted HiPIMS for solid particle erosion and high temperature wear resistance. <b>2019</b> , 377, 124922	8
262	Surface Stoichiometry and Optical Properties of $Cu_xNi_yCz$ Thin Films Deposited by Magnetron Sputtering. <b>2019</b> , 9, 551	11
261	Ecological and functional optimization of the pretreatment process for plasma based coatings of cutting tools. <b>2019</b> , 33, 618-624	2
260	Correlation between the formation of particle defects on sputtered Cu seed layers and Cu targets. <b>2019</b> , 14, 1079-1082	
259	On the Large Near-Field Enhancement on Nanocolumnar Gold Substrates. <b>2019</b> , 9, 13933	4
258	Microstructure and adhesion of MeN/TiSiN (Me = Ti, Cr, Zr, Mo, Nb, Al) multilayered coatings deposited by cathodic arc ion plating. <b>2019</b> , 497, 143602	10
257	Bioapplication of TiN thin films deposited using high power impulse magnetron sputtering. <b>2019</b> , 362, 167-175	23
256	The Effect of Magnetic Field Strength and Geometry on the Deposition Rate and Ionized Flux Fraction in the HiPIMS Discharge. <b>2019</b> , 2, 201-221	25
255	Recent Advances and Applications of Semiconductor Photocatalytic Technology. <b>2019</b> , 9, 2489	121
254	Metal filling by high power impulse magnetron sputtering. <b>2019</b> , 52, 365202	2
253	Tribological properties and corrosion resistance of CrSiN coatings prepared via hybrid HiPIMS and DCMS. <b>2019</b> , 6, 086432	4
252	Room-temperature, atmospheric-pressure micro-sputtering of dense, electrically conductive, sub-100 nm gold films. <b>2019</b> , 30, 285602	4
251	Frequency dependence of plasma characteristics at different pressures in cylindrical inductively coupled plasma source. <b>2019</b> , 21, 075401	2
250	Fabrication of Ni/Al composite coating on stainless steel using hybrid gas-phase coating technique and its corrosion study. <b>2019</b> , 1, 1	1
249	Role of ionization fraction on the surface roughness, density, and interface mixing of the films deposited by thermal evaporation, dc magnetron sputtering, and HiPIMS: An atomistic simulation. <b>2019</b> , 37, 031306	12

248	Effect of bias voltage on microstructure and optical properties of Al <sub>2</sub> O <sub>3</sub> thin films prepared by twin targets reactive high power impulse magnetron sputtering. <b>2019</b> , 166, 88-96	15
247	Microstructure and mechanical properties of Ti-Al-Cr-N films: Effect of current of additional anode. <b>2019</b> , 483, 1058-1068	11
246	Microstructure-driven strengthening of TiB <sub>2</sub> coatings deposited by pulsed magnetron sputtering. <b>2019</b> , 368, 88-96	14
245	Recent progress on high power impulse magnetron sputtering (HiPIMS): The challenges and applications in fabricating VO <sub>2</sub> thin film. <b>2019</b> , 9, 035242	15
244	Beryllium thin films deposited by thermionic vacuum arc for nuclear applications. <b>2019</b> , 481, 327-336	5
243	Preparation of cobalt oxide catalysts on stainless steel wire mesh by combination of magnetron sputtering and electrochemical deposition. <b>2019</b> , 334, 13-23	12
242	Co <sub>3</sub> O <sub>4</sub> thin films prepared by hollow cathode discharge. <b>2019</b> , 366, 303-310	10
241	European Nano Knowledge that Led to Faraday's Understanding of Gold Nanoparticles. <b>2019</b> , 141-212	
240	Reversely toposelective vapor deposition at normal pressure and temperature by capillary condensation. <b>2019</b> , 6, 1230-1237	3
239	Comparison of Langmuir probe and laser Thomson scattering for plasma density and electron temperature measurements in HiPIMS plasma. <b>2019</b> , 26, 040702	14
238	Observation of ring-shaped pulsed DC discharge plasma source using single pole magnet setups for material processing. <b>2019</b> , 174, 380-396	
237	Evolution of discharge parameters and sputtered species ionization in reactive HiPIMS with oxygen, nitrogen and acetylene. <b>2019</b> , 28, 025011	7
236	Negative ion-induced deuterium retention in mixed W-Al layers co-deposited in dual-HiPIMS. <b>2019</b> , 363, 273-281	6
235	Structure, Morphology, and Mechanical Properties of AlCrN Coatings Deposited by Cathodic Arc Evaporation. <b>2019</b> , 28, 1522-1531	22
234	Electrical Discharge Characteristics of Magnetized Capacitive Coupled Plasma. <b>2019</b> , 603-609	
233	Effect of Target Voltage on Tribological and Adhesive Properties of c-BN Films Coated with HiPIMS. <b>2019</b> ,	1
232	Investigation of plasma ion composition generated by high-power impulse magnetron sputtering (HiPIMS) of graphite. <b>2019</b> , 1393, 012018	3
231	Unipolar and bipolar mode of deep oscillation magnetron sputtering. <b>2019</b> , 1393, 012051	2

230	. <b>2019</b> ,	6
229	Packet-Pulse Dual Magnetron Sputtering. <b>2019</b> , 62, 1191-1198	1
228	Effect of frequency and pulse-on time of high power impulse magnetron sputtering on deposition rate and morphology of titanium nitride using response surface methodology. <b>2019</b> , 29, 2577-2590	5
227	Fabrication and characterization of Si Ge nanocrystals in as-grown and annealed structures: a comparative study. <b>2019</b> , 10, 1873-1882	3
226	Key Problems Affecting the Anti-Erosion Coating Performance of Aero-Engine Compressor: A Review. <b>2019</b> , 9, 821	4
225	<sup>57</sup> Fe Mössbauer study of epitaxial TiN thin film grown on MgO (1 0 0) by magnetron sputtering. <b>2019</b> , 464, 682-691	4
224	Influence of peak current on substrate plasma sheath properties of Ti films deposited by high-power pulsed magnetron sputtering. <b>2019</b> , 33, 1940016	0
223	Energy-enhanced deposition of copper thin films by bipolar high power impulse magnetron sputtering. <b>2019</b> , 359, 97-107	28
222	Influence of dry micro abrasive blasting on the physical and mechanical characteristics of hybrid PVD-ALTiN coated tools. <b>2019</b> , 37, 446-456	14
221	Smart photoactive soft materials for environmental cleaning and energy production through incorporation of nanophotocatalyst on polymers and textiles. <b>2019</b> , 30, 235-253	13
220	Comparison Between DC and HiPIMS Discharges. Application to Nickel Thin Films. <b>2019</b> , 196-203	2
219	. <b>2019</b> , 47, 1215-1222	5
218	Global model analysis of Ar inductively coupled plasma driven by a 150 kHz-band high-power pulse burst. <b>2019</b> , 58, SAAB06	2
217	Structure and mechanical properties of hafnium nitride films deposited by direct current, mid-frequency, and high-power impulse magnetron sputtering. <i>Thin Solid Films</i> , <b>2019</b> , 669, 65-71	2.2 6
216	The influence of positive pulses on HiPIMS deposition of hard DLC coatings. <b>2019</b> , 358, 43-49	34
215	High rate reactive sputtering of Al <sub>2</sub> O <sub>3</sub> coatings by HiPIMS. <b>2019</b> , 357, 402-411	10
214	The correlation between structure, multifunctional properties and application of PVD MAX phase coatings. Part I. Texture and room temperature properties. <b>2020</b> , 36, 225-267	2
213	Tribomechanical properties of hard Cr-doped DLC coatings deposited by low-frequency HiPIMS. <b>2020</b> , 382, 124899	32

212	Introduction to magnetron sputtering. <b>2020</b> , 1-48	5
211	Hardware and power management for high power impulse magnetron sputtering. <b>2020</b> , 49-80	6
210	Adhesion and dynamic impact wear of nanocomposite TiC-based coatings prepared by DCMS and HiPIMS. <b>2020</b> , 86, 105123	10
209	Heavy species dynamics in high power impulse magnetron sputtering discharges. <b>2020</b> , 111-158	4
208	Modeling the high power impulse magnetron sputtering discharge. <b>2020</b> , 159-221	3
207	Synthesis of thin films and coatings by high power impulse magnetron sputtering. <b>2020</b> , 333-374	5
206	Efficacy of aroma compounds for postharvest management of mango anthracnose. <b>2020</b> , 127, 245-256	5
205	Cubic-structure Al-rich TiAlSiN thin films grown by hybrid high-power impulse magnetron co-sputtering with synchronized Al <sup>+</sup> irradiation. <b>2020</b> , 385, 125364	5
204	The effects of deposition conditions on hydrogenation, hardness and elastic modulus of W-C:H coatings. <b>2020</b> , 40, 2721-2730	4
203	Preparation of silicon-doped diamond-like carbon films with electrical conductivity by reactive high-power impulse magnetron sputtering combined with a plasma-based ion implantation system. <b>2020</b> , 101, 107635	4
202	Influence of sputtered species ionisation on the hysteresis behaviour of reactive HiPIMS with oxygen admixture. <b>2020</b> , 29, 025027	8
201	Correlation between Substrate Ion Fluxes and the Properties of Diamond-Like Carbon Films Deposited by Deep Oscillation Magnetron Sputtering in Ar and Ar + Ne Plasmas. <b>2020</b> , 10, 914	3
200	Hot target magnetron sputtering process: Effect of infrared radiation on the deposition of titanium and titanium oxide thin films. <b>2020</b> , 181, 109734	7
199	Hybrid HIPIMS+MFMS power supply for dual magnetron sputtering systems. <b>2020</b> , 181, 109670	5
198	Design of hard coatings deposited by HiPIMS and dcMS. <b>2020</b> , 280, 128540	16
197	A poly-diagnostic study of bipolar high-power magnetron sputtering: role of electrical parameters. <b>2020</b> , 53, 435205	3
196	Effects of Varying Power and Argon Gas Flux on Tribological Properties and High-Speed Drilling Performance of Diamond-Like Carbon Coatings Deposited using High-Power Impulse Magnetron Sputtering System. <b>2020</b> , 29, 7291-7307	1
195	Mechanical and Tribological Properties and High-Speed Drilling Performance of NbTiN Coatings Prepared by High-Power Impulse Magnetron Sputtering with Varying Nitrogen and Acetylene Flux Rates. <b>2020</b> , 29, 8194-8212	1

194	The effect of magnetic field configuration on structural and mechanical properties of TiN coatings deposited by HiPIMS and dcMS. <b>2020</b> , 404, 126572	11
193	Revisiting particle dynamics in HiPIMS discharges. I. General effects. <b>2020</b> , 128, 043303	8
192	Revisiting particle dynamics in HiPIMS discharges. II. Plasma pulse effects. <b>2020</b> , 128, 043304	5
191	Thin-film nanocomposite devices for renewable energy current status and challenges. <b>2020</b> , 26, e00233	0
190	Effect of the Substrate Biasing on the Structure and Properties of Tantalum Coatings Deposited Using HiPIMS in Deep Oscillations Magnetron Sputtering Mode. <b>2020</b> , 10, 1618	1
189	Advanced Concepts and Architectures for Plasma-Enabled Material Processing. <b>2020</b> , 5, 1-90	
188	Organosiloxane Monolayers Terminated with Amine Groups as Adhesives for Si Metallization. <b>2020</b> , 3, 3741-3749	5
187	Metal-ion subplantation: A game changer for controlling nanostructure and phase formation during film growth by physical vapor deposition. <b>2020</b> , 127, 180901	16
186	Plasma Diagnostics in Reactive High-Power Impulse Magnetron Sputtering System Working in Ar + H <sub>2</sub> S Gas Mixture. <b>2020</b> , 10, 246	2
185	Multi-instrument characterization of HiPIMS and DC magnetron sputtered tungsten and copper films. <b>2020</b> , 52, 433-441	3
184	Present advances and perspectives of broadband photo-detectors based on emerging 2D-Xenes beyond graphene. <b>2020</b> , 13, 891-918	27
183	A Strategy for Alleviating Micro Arcing during HiPIMS Deposition of DLC Coatings. <b>2020</b> , 13,	3
182	Effect of helium incorporation on plasma parameters and characteristic properties of hydrogen free carbon films deposited using DC magnetron sputtering. <b>2020</b> , 127, 014901	2
181	Effect of substrate bias on microstructure of epitaxial film grown by HiPIMS: An atomistic simulation. <b>2020</b> , 38, 043006	4
180	Electrophoretic deposition of a supercapacitor electrode of activated carbon onto an indium-tin-oxide substrate using ethyl cellulose as a binder. <b>2020</b> , 58, 188-196	9
179	Semiconducting p-Type Copper Iron Oxide Thin Films Deposited by Hybrid Reactive-HiPIMS + ECWR and Reactive-HiPIMS Magnetron Plasma System. <b>2020</b> , 10, 232	3
178	Synthesis of hard diamond-like carbon films by double-pulse high-power impulse magnetron sputtering. <b>2020</b> , 108, 107996	5
177	Temporal evolution of spatial optical emission characteristics by inductively-coupled impulse sputtering (ICIS) using high power-burst 155kHz-ICP. <b>2020</b> , 175, 109283	

176	Investigating the plasma parameters and discharge asymmetry in dual magnetron reactive high power impulse magnetron sputtering discharge with Al in Ar/O <sub>2</sub> mixture. <b>2020</b> , 175, 109253	2
175	Processing and characterization of a multibeam sputtered nanocrystalline CoCrFeNi high-entropy alloy film. <b>2020</b> , 386, 125465	10
174	Dual mode of deep oscillation magnetron sputtering. <b>2020</b> , 387, 125559	6
173	Thin Films. <b>2020</b> , 1-55	0
172	Obtaining SiGe nanocrystallites between crystalline TiO <sub>2</sub> layers by HiPIMS without annealing. <b>2020</b> , 511, 145552	4
171	Comparative study of TiAlN coatings deposited by different high-ionization physical vapor deposition techniques. <b>2020</b> , 46, 10814-10819	10
170	Silicon wafer etching by pulsed high-power inductively coupled Ar/CF <sub>4</sub> plasma with 150 kHz band frequency. <b>2020</b> , 59, SHHE04	2
169	Sideways deposition rate and ionized flux fraction in dc and high power impulse magnetron sputtering. <b>2020</b> , 38, 033009	12
168	Properties of secondary particles for ion beam sputtering of silicon using low-energy oxygen ions. <b>2020</b> , 38, 033011	6
167	Effects of aspect ratio on electron loss mechanisms and plasma uniformity in cylindrical inductively coupled plasma. <b>2020</b> , 27, 043502	2
166	Optimization of HiPIMS discharges: The selection of pulse power, pulse length, gas pressure, and magnetic field strength. <b>2020</b> , 38, 033008	16
165	Technical Characteristics and Wear-Resistant Mechanism of Nano Coatings: A Review. <b>2020</b> , 10, 233	19
164	Conductive polyurethane nanofiber membrane prepared through high-power impulse magnetron sputtering using brass alloy. <b>2021</b> , 405, 126589	1
163	Tailoring the degradation rate of magnesium through biomedical nano-porous titanate coatings. <b>2021</b> , 9, 336-350	6
162	Pretreatment of cutting tools by plasma electrolytic polishing (PEP) for enhanced adhesion of hard coatings. <b>2021</b> , 405, 126504	7
161	A comparative investigation of hetero-epitaxial TiC thin films deposited by magnetron sputtering using either hybrid DCMS/HiPIMS or reactive DCMS process. <b>2021</b> , 537, 147903	5
160	Surface characterization determined from the secondary electron emission coefficient upon ion bombardment. <b>2021</b> , 538, 148042	
159	Mechanical and microstructural properties of broadband anti-reflective TiO <sub>2</sub> /SiO <sub>2</sub> coatings for photovoltaic applications fabricated by magnetron sputtering. <b>2021</b> , 220, 110841	18

158	Effects of substrate bias voltage on structure and internal stress of amorphous carbon films on Fe substrate: Molecular dynamics simulation. <b>2021</b> , 188, 110206	3
157	Tribological performance of DLC coatings deposited by DOMS in mixed Ar-Ne discharges. <b>2021</b> , 285, 129056	4
156	Characteristics of HfN coatings by inductively coupled plasma-assisted magnetron sputtering. <b>2021</b> , 58, 178-183	2
155	Influence of pulse frequency on microstructure and mechanical properties of Al-Ti-V-Cu-N coatings deposited by HIPIMS. <b>2021</b> , 405, 126514	8
154	Titanium Silicon Nitride Films With Low Silicon Content Deposited via Reactive High-Power Pulsed Sputtering Penning Discharge. <b>2021</b> , 49, 53-60	1
153	HiPIMS optimization by using mixed high-power and low-power pulsing. <b>2021</b> , 30, 015015	7
152	EFFECT AND MECHANISM OF CeO <sub>2</sub> ON THE MICROSTRUCTURE AND PROPERTIES OF Ni <sub>60</sub> Al <sub>3</sub> Cr <sub>3</sub> C <sub>2</sub> LASER CLADDING LAYER. <b>2021</b> , 28, 2150018	0
151	Effect of Peak Power in Deep Oscillation Magnetron Sputtering on Film Properties. <b>2021</b> , 30, 3912-3924	1
150	Overview of residual stress in MEMS structures: Its origin, measurement, and control. <b>2021</b> , 32, 6705-6741	2
149	Influence of magnetic field configuration on plasma characteristics and thin film properties in dual magnetron reactive high power impulse magnetron sputtering discharge with Al in Ar/O <sub>2</sub> mixture. <b>2021</b> , 409, 126837	3
148	Experimental verification of deposition rate increase, with maintained high ionized flux fraction, by shortening the HiPIMS pulse. <b>2021</b> , 30, 045006	4
147	Low temperature growth of stress-free single phase TiW films using HiPIMS with synchronized pulsed substrate bias. <b>2021</b> , 129, 155305	0
146	Delayed Discharge Bridging Two Sputtering Modes from Modulated Pulsed Power Magnetron Sputtering (MPPMS) to Deep Oscillation Magnetron Sputtering (DOMS). <b>2021</b> , 4, 239-251	2
145	Improving the Quality of Friction Stir Welds in Aluminium Alloys. <b>2021</b> , 11, 539	0
144	Silicon Wafer Etching Rate Characteristics with Burst Width Using 150 kHz Band High-Power Burst Inductively Coupled Plasma. <b>2021</b> , 12,	1
143	Dependence of Optical Emission Spectra on Argon Gas Pressure during Modulated Pulsed Power Magnetron Sputtering (MPPMS). <b>2021</b> , 4, 269-280	1
142	Properties of millisecond-scale modulated pulsed power magnetron discharge applied for reactive sputtering of zirconia. <b>2021</b> , 30, 055002	1
141	An upgraded ultra-high vacuum magnetron-sputtering system for high-versatility and software-controlled deposition. <b>2021</b> , 187, 110137	11

140	Structure of DC magnetron sputtering discharge at various gas pressures: a two-dimensional particle-in-cell Monte Carlo collision study. <b>2021</b> , 30, 055009		1
139	Structure and isotropy of lattice pressure tensors for multirange potentials. <b>2021</b> , 103, 063309		1
138	Mechanical Properties and Diffusion Barrier Performance of CrWN Coatings Fabricated through Hybrid HiPIMS/RFMS. <b>2021</b> , 11, 690		2
137	Surface Stoichiometry and Depth Profile of Ti-CuN Thin Films Deposited by Magnetron Sputtering. <b>2021</b> , 14,		2
136	Performance of diamond-like carbon coatings (produced by the innovative Ne-HiPIMS technology) under different lubrication regimes. <b>2021</b> , 477, 203775		3
135	Coating Techniques For Materials Medical: A Mini-Review. <b>2021</b> ,		
134	A high-power impulse magnetron sputtering global model for argon plasma-chromium target interactions. <b>2021</b> , 39, 043004		
133	On the relationship between the plasma characteristics, the microstructure and the optical properties of reactively sputtered TiO <sub>2</sub> thin films. <b>2021</b> , 54, 415202		0
132	Fabrication of TiZrNbTaFeN high-entropy alloys coatings by HiPIMS: Effect of nitrogen flow rate on the microstructural development, mechanical and tribological performance, electrical properties and corrosion characteristics. <b>2021</b> , 873, 159605		17
131	Pulse synchronized substrate bias for the High Power Pulsed Magnetron Sputtering deposition of CrAlN. <i>Thin Solid Films</i> , <b>2021</b> , 732, 138792	2.2	1
130	Atomic level engineering of noble metal nanocrystals for energy conversion catalysis. <b>2021</b> , 63, 604-604		1
129	Influence of substrate bias and temperature on the crystallization of metallic NbTaTiVZr high-entropy alloy thin films. <b>2021</b> , 421, 127357		6
128	Enhancing mechanical properties and cutting performance of industrially sputtered AlCrN coatings by inducing cathodic arc glow discharge. <b>2021</b> , 422, 127563		3
127	Afterglow dynamics of plasma potential in bipolar HiPIMS discharges.		0
126	Copper thin films deposited using different ion acceleration strategies in HiPIMS. <b>2021</b> , 422, 127487		5
125	Research on Ti-GLC/TiCN/TiN composite multilayer coating with ultra-low friction coefficient in various environments. <b>2021</b> , 26, 101426		0
124	Microstructure of titanium coatings controlled by pulse sequence in multipulse HiPIMS. <b>2021</b> , 423, 127624		3
123	Tailoring interface alloying and magnetic properties in (111) Permalloy/Pt multilayers. <b>2021</b> , 538, 168288		0



122	Cylindrical inertial electrostatic confinement plasma source for surface treatment. <b>2021</b> , 193, 110502	2
121	On the role of ion potential energy in low energy HiPIMS deposition: An atomistic simulation. <b>2021</b> , 426, 127726	0
120	Corrosion behavior and interfacial conductivity of amorphous hydrogenated carbon and titanium carbide composite (a-C: H/TiC) films prepared on titanium bipolar plates in PEMFCs. <b>2021</b> , 120, 108628	6
119	Comparative Investigations of AlCrN Coatings Formed by Cathodic Arc Evaporation under Different Nitrogen Pressure or Arc Current. <b>2021</b> , 14,	7
118	On how to measure the probabilities of target atom ionization and target ion back-attraction in high-power impulse magnetron sputtering. <b>2021</b> , 129, 033303	5
117	Noble-metal single-atoms in thermocatalysis, electrocatalysis, and photocatalysis. <b>2021</b> , 14, 2954-3009	64
116	Optical Plasma Diagnostics During Reactive Magnetron Sputtering. <b>2008</b> , 301-335	5
115	Comparative study on protective properties of CrN coatings on the ABS substrate by DCMS and HiPIMS techniques. <b>2020</b> , 394, 125890	13
114	Fabrication of Cr-Si-N coatings using a hybrid high-power impulse and radio-frequency magnetron co-sputtering: The role of Si incorporation and duty cycle. <b>2020</b> , 403, 126378	6
113	Calorimetric probe measurements for a high voltage pulsed substrate (PBII) in a HiPIMS process. <b>2017</b> , 26, 065013	15
112	Physics and technology of magnetron sputtering discharges. <b>2020</b> , 29, 113001	79
111	Study of Structure Densification in TiO <sub>2</sub> Coatings Prepared by Magnetron Sputtering under Low Pressure of Oxygen Plasma Discharge. <b>2011</b> , 120, 49-52	5
110	Comparative Study of Tribomechanical Properties of HiPIMS with Positive Pulses DLC Coatings on Different Tools Steels. <b>2021</b> , 11, 28	7
109	Time-of-flight mass spectrometric diagnostics for ionized and neutral species in high-power pulsed magnetron sputtering of titanium. <b>2020</b> , 59, SHHB05	4
108	Microstructure and electrical property of tantalum oxynitride thin films prepared using high-power impulse reactive magnetron sputtering. <b>2020</b> , 59, 116502	1
107	Comparison of plasma characteristics of high-power pulsed sputtering glow discharge and hollow-cathode discharge. <b>2021</b> , 60, 015501	1
106	Magnetic Field Dependent Characteristics of Al-doped ZnO by High Power Impulse Magnetron Sputtering (HIPIMS). <b>2010</b> , 20, 629-635	1
105	Overview of thin film deposition techniques. <b>2019</b> , 6, 174-199	70

- 104 Properties of VN Coatings Deposited by ICP Assisted Sputtering: Effect of ICP Power. **2017**, 54, 38-42 5
- 103 A Review of Inductively Coupled Plasma-Assisted Magnetron Sputter System. **2019**, 28, 131-138 6
- 102 Improved Step Coverage of Cu Seed Layers by Magnetic-Field-Assisted Ionized Sputtering. **2011**, 50, 05EA03 3
- 101 Plasma flux and energy enhancement in BP-HiPIMS discharge via auxiliary anode and solenoidal coil. **2021**, 30, 115002 1
- 100 Magnetic activity of Permalloy films grown in the recombination burning zone of a low-temperature plasma. **2010**, 53, 385
- 99 Lafad-Assisted Plasma Surface Engineering Processes for Wear and Corrosion Protection: A Review. 105-122 0
- 98 Origin of the Activity of Semiconductor Photocatalysts. **2014**, 91-135
- 97 Effect of Inductively Coupled Plasma on the Microstructure, Structure and Mechanical Properties of VN Coatings. **2016**, 49, 376-381 1
- 96 High-Power Impulse Magnetron Sputtering (HiPIMS). **2016**, 588-602
- 95 Modification of Microstructure of Metal Films using High Power Pulsed Magnetron Sputtering. **2017**, 38, 228-233 1
- 94 Uniqueness of High Power Impulse Magnetron Sputtering in Ionized Physical Vapor Deposition. **2017**, 68, 712-717 1
- 93 Physical Synthesis of Nanoalloys. **2020**, 1-31
- 92 Effect of Peak Current Density on Inner-wall Deposition of Ti Films by High-power Impulse Magnetron Sputtering. **2020**, 63, 404-412
- 91 Nanoindentation-induced deformation behaviors of tetrahedral amorphous carbon film deposited by cathodic vacuum arc with different substrate bias voltages. **2021**, 576, 151741 1
- 90 Vacuum Arc Plasma Sources. Thin Film Deposition. **2020**, 933-1001
- 89 Advanced Tribological Characterization of DLC Coatings Produced by Ne-HiPIMS for the Application on the Piston Rings of Internal Combustion Engines. **2021**, 11, 10498 2
- 88 Toward low-temperature processing of lead zirconate titanate thin films: Advances, strategies, and applications. **2021**, 8, 041315 2
- 87 An Electrical Impedance-Based Technique to Infer Plasma Density in a 13.56-MHz Magnetized Capacitive Coupled RF Discharge. **2021**, 49, 3582-3588 1

86	Deposition of Al <sub>2</sub> O <sub>3</sub> coatings in Ar-O <sub>2</sub> low-pressure discharge plasma under a high dissociation degree of O <sub>2</sub> . <b>2021</b> , 2064, 012047	
85	Magnetron sputtered titanium carbide-based coatings: A review of science and technology. <b>2022</b> , 197, 110853	3
84	Bio-electron transfer modulated localized surface plasmon resonance biosensing with charge density monitoring.. <b>2022</b> , 201, 113956	1
83	Application of High Power Impulse Magnetron Sputtering (HIPIMS) Technology for Deposition of Protective Coatings. <b>2020</b> ,	
82	Sputtering onto liquids: a critical review.. <b>2022</b> , 13, 10-53	5
81	Formation and phase behavior of porphyrin/arachidic acid mixed systems and morphology study of Langmuir-Schaefer thin films. 1-12	0
80	Formation of Diamond-Like Carbon Film on Organic Substrate by High Power Impulse Magnetron Sputtering. <b>2022</b> , 73, 47-52	
79	Optical Properties and Stability of Copper Thin Films for Transparent Thermal Heat Reflectors. <b>2022</b> , 12, 262	0
78	Study on the Hydrophobic Modification of MTES/NH Vapor Surface Treatment for SiO Broadband Anti-Reflection Coating.. <b>2022</b> , 15,	0
77	Condensation-Controlled Toposelective Vapor Deposition in Nano- and Microcavities: Theory, Methods, Applications, and Related Technologies. 2101314	1
76	Towards control of TiO <sub>2</sub> thickness film in R-HiPIMS process with a coupled optical and electrical monitoring of plasma. <b>2022</b> , 433, 128073	
75	On the population density of the argon excited levels in a high power impulse magnetron sputtering discharge. <b>2022</b> , 29, 023506	
74	Ionization region model of a high power impulse magnetron sputtering discharge of copper. <b>2022</b> , 128189	1
73	Impact damage of the surface layer of quartz amorphized by the Ar <sup>+</sup> ions implantation. 1-9	
72	Improvement of plasma uniformity and mechanical properties of Cr films deposited on inner surface of tube by auxiliary anode near tube tail.	0
71	Development of a Plasma Diagnostic Method for High Power Pulsed Magnetron Sputtering Using a Reflectron-Type Time-of-Flight Mass Spectrometer. <b>2022</b> , 70, 30-35	0
70	A comprehensive review of vapour deposited coatings for cutting tools: properties and recent advances. 1-14	1
69	Double-Layer Broadband Antireflective Coatings with Constant High Transmittance. <b>2022</b> , 12, 435	

68	Development of Al-Ni-TiC Composite Coating on Commercially Pure Al Using Tungsten Inert Gas Welding Route and its Wear Behavior.	
67	The effect of RF plasma power on remote plasma sputtered AZO thin films. <b>2022</b> , 128402	2
66	Tribological Behaviour of AlNiTiB <sub>2</sub> Composite Coating on AA1100 Al-alloy Prepared Using TIG Torch Welding Route. 1	0
65	Enhanced radio-frequency performance of niobium films on copper substrates deposited by high power impulse magnetron sputtering. <b>2022</b> , 35, 054008	0
64	Recent advancements in nanomaterials for biomedical implants. <b>2022</b> , 3, 100029	2
63	Short-pulse high-power dual magnetron sputtering. <b>2022</b> , 200, 111026	1
62	Recent Advances in Design and Fabrication of Wear Resistant Materials and Coatings. <b>2022</b> , 87-117	1
61	Recent Advances in Copper-Doped Titanium Implants.. <b>2022</b> , 15,	0
60	Ion energy analysis of a bipolar HiPIMS discharge using a retarding field energy analyser.	0
59	Preparation and Characterization of DC Magnetron Sputtered Thin Films of Titanium, Silver, Gold and Their Compound. <b>2022</b> ,	
58	Properties of Multilayered CrN/VN Films Prepared Using a Hybrid System of High-Power Impulse Magnetron Sputtering and Pulsed Magnetron Sputtering. <b>2022</b> , 1-7	
57	Hybrid coatings for orthopaedic implants formed by physical vapour deposition and microarc oxidation. <b>2022</b> , 110811	0
56	Mechanical Properties and Residual Stress Measurement of TiN/Ti Duplex Coating Using HiPIMS TiN on Cold Spray Ti. <b>2022</b> , 12, 759	0
55	Tailoring of rhenium oxidation state in ReOx thin films during reactive HiPIMS deposition process and following annealing. <b>2022</b> , 126399	0
54	Modeling of high power impulse magnetron sputtering discharges with tungsten target.	1
53	Modelling of dcMS and HiPIMS process with hydrocarbon gas admixture.	
52	Time-of-flight mass spectrometry diagnostics in deep oscillation magnetron sputtering (DOMS) of titanium. <b>2022</b> , 131, 243301	1
51	A review on materials, advantages, and challenges in thin film based solid oxide fuel cells.	1

50	Langmuir-Blodgett monolayer of electrochemically synthesized PANI-TiO <sub>2</sub> nanocomposites for MSG biosensor. <b>2022</b> , 10, 100264	1
49	Tailoring the structural and optical properties of HiPIMS TiO <sub>2</sub> thin films for photovoltaic applications. <b>2022</b> , 131, 112590	0
48	Modeling and Experimental Study of Hysteresis during the Reactive Sputter Deposition of Titanium Oxides and Nitrides Using a Pulsed DC Magnetron. 1065, 215-229	
47	Foundations of physical vapor deposition with plasma assistance.	2
46	Plasma diagnostics and film growth of multicomponent nitride thin films with magnetic-field-assisted-dc magnetron sputtering. <b>2022</b> , 111331	0
45	Tailoring the Hybrid Magnetron Sputtering Process (HiPIMS and dcMS) to Manufacture Ceramic Multilayers: Powering Conditions, Target Materials, and Base Layers. <b>2022</b> , 12, 2465	0
44	Improving corrosion resistance of 3D printed Ti-6Al-4V by TiN coating. <b>2021</b> , 31, 137-146	
43	Influence of annealing temperature on corrosion inhibition and nanostructure of nitride Ni and Ni/Ti coatings on AISI stainless steel. <b>2022</b> , 137,	
42	Magnetic field topology for altering ion density in bipolar sputtering. <b>2022</b> , 121, 051603	0
41	Fabrication of Al-Ni-Al <sub>2</sub> O <sub>3</sub> metal matrix composite coating on AA1100 wrought aluminium alloy by Gas Tungsten Arc (GTA) coating technique..	
40	Application of positive pulse to extract ions from HiPIMS ionization region. <b>2022</b> , 204, 111383	
39	A review of tribological properties and deposition methods for selected hard protective coatings. <b>2022</b> , 176, 107919	2
38	Material Processing. <b>2020</b> , 41-72	0
37	Optical and Photoluminescent Properties of a Thin Zinc Oxide Film on a Lithium Tantalate Substrate. <b>2022</b> , 130, 173-179	0
36	Microstructure and Performance of High-Velocity Oxygen-Fuel Coupled Physical Vapor Deposition (HVOF-PVD) Duplex Protective Coatings: A Review. <b>2022</b> , 12, 1395	0
35	Microstructure and mechanical properties of nanomultilayered AlTiN/Cu coatings prepared by a hybrid system of AIP and PDCMS. <b>2022</b> ,	0
34	Influence of friction stir process on the MIG cladded AA 6063 to study the wear performance.	1
33	Frequency Effect on the Structure and Properties of Mo-Zr-Si-B Coatings Deposited by HiPIMS Using a Composite SHS Target. <b>2022</b> , 12, 1570	1

32	Development and Evaluation of Copper Based Transparent Heat Reflectors Obtained by Magnetron Sputtering. <b>2022</b> , 12, 3544	0
31	Rational Design of Noble Metal-Based Multimetallic Nanomaterials: A Review. <b>2022</b> , 107959	1
30	Magnetic Micro/Nanorobots: A New Age in Biomedicines. 2200208	0
29	Magnetron sputtered thin films based on transition metal nitride: structure and properties.	0
28	Structure optimization of Spindt-type emitter fabricated by triode high power pulsed magnetron sputtering. <b>2022</b> , 40, 063201	0
27	Effect of bias voltage and nitrogen content on the morphological, structural, mechanical, and corrosion resistance properties of micro-alloyed Ti <sub>1-x</sub> Al <sub>0.8x</sub> P <sub>0.2x</sub> N <sub>y</sub> films deposited by high power impulse magnetron sputtering. <b>2023</b> , 41, 013101	0
26	Target ion and neutral spread in high power impulse magnetron sputtering. <b>2023</b> , 41, 013002	0
25	Investigation of the magnetron balancing effect on the ionized flux fraction and deposition rate of sputtered titanium species for the high-power impulse magnetron sputtering pulses of different lengths. <b>2023</b> , 41, 013003	0
24	On selective ion acceleration in bipolar HiPIMS: A case study of (Al,Cr) <sub>2</sub> O <sub>3</sub> film growth. <b>2023</b> , 454, 129153	0
23	Controlling the structure of a glow discharge by supersonic gas flow. <b>2022</b> , 29, 120702	0
22	Numerical simulation of the bifurcation-remerging process and intermittency in an undriven direct current glow discharge. <b>2022</b> , 106,	1
21	Surface modification technologies for enhancing the tribological properties of cemented carbides: A Review. <b>2023</b> , 108257	0
20	Insights on film growth conditions on a floating substrate during reactive Ar/O <sub>2</sub> bipolar High Power Impulse magnetron sputter deposition..	0
19	Diagnostic Techniques for Electrical Discharge Plasma Used in PVD Coating Processes. <b>2023</b> , 13, 147	2
18	Hybrid deposition of Cr <sub>2</sub> O <sub>3</sub> /Al <sub>2</sub> O <sub>3</sub> hard coatings combining cathodic arc evaporation and high power impulse magnetron sputtering. <b>2023</b> , 129235	0
17	α-phase tantalum film deposition using bipolar high-power impulse magnetron sputtering technique. <b>2023</b> , 767, 139668	0
16	Chromium arc plasma characterization, structure and properties of CrN coatings prepared by vacuum arc evaporation. <b>2023</b> , 209, 111796	0
15	Corrosion Reactivity in the Pre-clinical Study of 23 Grade Titanium Alloy in Ringer Solution. <b>2022</b> ,	0

- 14 Dynamics of sputtered particles in multipulse HiPIMS discharge. **2023**, 32, 045003 ○
- 13 The study of hydroxyapatite growth kinetics on CP Ti and Ti65Zr treated by Plasma electrolytic oxidation process. **2023**, 24, 2169-2186 ○
- 12 Effect of tail time of discharge current on film properties in diamond-like carbon deposition by high-frequency inclusion high-power impulse magnetron sputtering. **2023**, 135, 109868 ○
- 11 Evidence for fireballs in bipolar HiPIMS plasmas. **2023**, 32, 025015 ○
- 10 Structural color generation: from layered thin films to optical metasurfaces. **2023**, 12, 1019-1081 ○
- 9 High power impulse magnetron sputtering of tungsten: a comparison of experimental and modelling results. **2023**, 32, 034003 ○
- 8 Predicting the Average Composition of an AlFeNiTiVZr-Cr Alloy with Machine Learning and X-ray Spectroscopy. **2023**, 3, 224-232 ○
- 7 Evolution of microstructure and properties of TiNbCrAlHfN films grown by unipolar and bipolar high-power impulse magnetron co-sputtering: The role of growth temperature and ion bombardment. **2023**, 459, 129389 ○
- 6 Plasma Enhanced High-Rate Deposition of Advanced Film Materials by Metal Reactive Evaporation in Organosilicon Vapors. **2023**, 13, 374 ○
- 5 The investigation of structural, surface topography, and optical behaviors of Al-doped ZnO thin films with annealing temperature deposited by RF magnetron sputtering. **2023**, 34, ○
- 4 Recent advances and strategies for high-performance coatings. **2023**, 136, 101125 ○
- 3 A Comparative Investigation on the Microstructure and Thermal Resistance of W-Film Sensor Using dc Magnetron Sputtering and High-Power Pulsed Magnetron Sputtering. **2023**, 9, 97 ○
- 2 Optical emission spectroscopy in deep oscillation magnetron sputtering (DOMS) of titanium. ○
- 1 Structure and Properties of Ti<sub>0.5</sub>Ni<sub>0.5</sub>Al Wear-Resistant Coatings Obtained by HIPIMS Method. **2023**, 59, 76-84 ○