

JEMNÁ MECHANIKA A OPTIKA

VĚDECKO-TECHNICKÝ ČASOPIS
ROČNÍK 51 4/2006

OBSAH

SHM, s.r.o. – profil společnosti (P. Holubář)	95
PVD technologie přípravy otěruvzdorných a kluzných vrstev v průmyslových podmínkách (T. Cselle, P. Holubář, M. Jílek, M. Růžička, M. Šíma, O. Zindulka)	96
Vliv PVD čištění na strukturu povrchu slinutého karbidu (O. Zindulka)	113
13. mezinárodní strojírenský veletrh (jpe)	115
Růst krystalů kovů metodou visuté zonální tavby s optickým ohřevem (P. Lejček, J. Kopeček)	116
SPIE/CS – společnost optiků informuje	119
Obnovitelné zdroje energie jsou podporovány (M. Libra)	120
Osvetlenie pracovných miest (P. Horňák)	121
15. seminár „Měřicí technika pro kontrolu jakosti“ (I. Brezina)	123

FINE MECHANICS AND OPTICS

SCIENTIFIC-TECHNICAL JOURNAL
VOLUME 51 4/2006

CONTENTS

SHM s. r. o. - a company profile (P. Holubář)	95
PVD technology preparation of abrasion-resistant and sliding layers in the industrial environment (T. Cselle, P. Holubář, M. Jílek, M. Růžička, M. Šíma, O. Zindulka)	96
Influence of PVD cleaning on the sintered carbide surface structure (O. Zindulka)	113
13th international engineering fair (jpe)	115
Growth of Metallic Crystals by Floating-Zone Technique with Optical Heating (P. Lejček, J. Kopeček)	116
SPIE/CS - society of opticians informs	119
Renewable energy sources advanced (M. Libra)	120
Workplace illumination (P. Horňák)	121
15th workshop “Measuring techniques for quality control” (I. Brezina)	123

Obsah časopisu Jemná mechanika a optika je uveden na internetu: <http://jmo.fzu.cz>

Informace o předplatném podá, objednávky přijímá, objednávky do zahraničí vyřizuje: SLO UP a FZÚ AV ČR, Tř. 17. listopadu 50, 772 07 Olomouc, tel.: 585 223 936, fax: 585 631 531.

Cena čísla 40 Kč včetně DPH

You can also find the contents of the Journal on Internet: <http://jmo.fzu.cz>

Information on subscription rate and on ordering gives the SLO UP a FZÚ AV ČR, Tř. 17. listopadu 50, 772 07 Olomouc, tel.: 585 223 936, fax: 585 631 531.

Price for single copy: 40 Kč incl. VAT

CONTENTS

SHM s. r. o. - a company profile (P. Holubář).....	95	13th international engineering fair (jpe)	115
PVD technology preparation of abrasion-resistant and sliding layers in the industrial environment (T. Cselle, P. Holubář, M. Jílek, M. Růžička, M. Šíma, O. Zindulka)	96	Growth of Metallic Crystals by Floating-Zone Technique with Optical Heating (P. Lejček, J. Kopeček)	116
Generally, the importance of surface treatments is highly appreciated. Surface treatments that may include “only” visual coatings and finishing or conversely surfaces very useful in optics, electronics, cutting, plastic working, resistance to corrosion and thermal protection, all they represent one of determining aims of science and development extending application possibilities of treated substrates or reaching their quite novel employment. This article does not pretend being highly scientific valuable, it attempts to describe the up to date technology state-of-the-art usable in the industrial environment and especially useful for the Czech middle sized company.		Successful application of optical heating for growth of controlled structures of metallic materials by means of floating-zone technique is demonstrated for examples of oriented single crystals and tricrystals of an Fe–Si alloy, and coarse grained multicrystals of FeAl intermetallics and NiTi shape memory alloy. The results show the big advantage of the use of optical heating for visual check of the behavior of the molten zone and its controlled changes during the growth process.	
Influence of PVD cleaning on the sintered carbide surface structure (O. Zindulka).....	113	SPIE/CS - society of opticians informs	119
Predeposition requirements for the preparation of tool surfaces in PVD technology are more time-consuming in comparison with the PVD technology. An adhesive boundary is not created by coating diffusion into the substrate as it may happen in CVD case, but during a creation of physical coupling between surface and energetic particles deposited in the process of the particle impact and their condensation. Provided that deposited atoms join for instance the carbon or oxygen atoms, which alone have an absolutely insufficient adhesion to the tool surface, the total adhesion will be essentially defined just by adhesion impurity - surface.		Renewable energy sources advanced (M. Libra).....	120
		Workplace illumination (P. Horňák).....	121
		To advance the most precise use of new European standards in all possible light technical applications we cannot afford something to neglect or to leave to luck. Briefly, each CEN (European Committee for Standardization) member demands not only to take over the new standard provisions but also to introduce the designers into the dilemmas of established changes. This article contains data specific to EN 12464-1.	
		15th workshop “Measuring techniques for quality control” (I. Brezina)	123
