

Large-scale imprinting of silver submicrometer structures

By Stefano Buzzi

Südwestdeutscher Verlag Für Hochschulschriften AG Co. KG Jul 2015, 2015. Taschenbuch. Book Condition: Neu. 220x150x7 mm. This item is printed on demand - Print on Demand Neuware - While metals are extremely widespread in the macroscopic world, the use of metallic microstructures is currently limited by the deficiency of efficient fabrication techniques and the incomplete understanding of the material properties at submicrometer scale. In this thesis the author exploited the exceptional malleability of silver and gold to extend the use of the forging technique (imprinting) to sizes down to 100 nm and aspect ratios above 10. The successful large-scale production of metal microstructures enabled the study of size effects on mechanical properties. Moreover, the interaction of light with metal-semiconductor subwavelength periodic structures (metamaterials) was investigated. The results indicate that (nano)imprinting can indeed be used for producing high-quality metal microstructures as well as for metalizing structured dielectrics. The observation of strong size effects in structures below 1 um (showing inhomogeneous deformation and up to 10-fold higher strengths compared to the bulk) and of sharp IR-light resonances in silver-silicon photonic crystals contribute to develop the necessary know-how for the design of innovative MEMS and optoelectronic applications. 120 pp. Englisch.



Reviews

This composed ebook is wonderful. It really is writter in basic words rather than hard to understand. You may like the way the writer compose this pdf. -- Ryder Nolan

This book can be well worth a go through, and a lot better than other. It is writter in simple words and phrases and not confusing. Its been printed in an exceptionally simple way in fact it is merely right after i finished reading through this pdf by which basically changed me, modify the way i think. -- Margot Carter V

Related Kindle Books

1	

Psychologisches Testverfahren

Reference Series Books LLC Nov 2011, 2011. Taschenbuch. Book Condition: Neu. 249x191x7 mm. This item is printed on demand - Print on Demand Neuware - Quelle: Wikipedia. Seiten: 100. Kapitel: Myers-Briggs-Typindikator, Keirsey Temperament Sorter, DISG, Eignungstest für das Medizinstudium, Adult Attachment Interview,...

Programming in

D

'em

Ali Cehreli Dez 2015, 2015. Buch. Book Condition: Neu. 264x182x53 mm. This item is printed on demand - Print on Demand Neuware -The main aim of this book is to teach D to readers who are new to computer programming. Although...

The Preschool Inclusion Toolbox: How to Build and Lead a High-Quality

Program Brookes Publishing Co, United States, 2015. Paperback. Book Condition: New. 274 x 213 mm. Language: English . Brand New Book. Filled with tips, tools, and strategies, this book is the comprehensive, practical toolbox preschool administrators need to implement

ſ	
	= 1
J	

It's Just a Date: How to Get 'em, How to Read 'em, and How to Rock

HarperCollins Publishers. Paperback. Book Condition: new. BRAND NEW, It's Just a Date: How to Get 'em, How to Read 'em, and How to Rock 'em, Greg Behrendt, Amiira Ruotola-Behrendt, A fabulous new guide to dating co-authored by Greg Behrendt, former writer on...

	5	С	٢	
	1		L	
=	L		L	

Tinga Tinga Tales: Why Lion Roars - Read it Yourself with

Ladybird

Paperback. Book Condition: New. Not Signed; This is a Tinga Tinga tale inspired by traditional stories from Africa. Lion is king of Tinga Tinga but he can't roar! Can his friend Flea help Lion to find his roar and behave more like...

٢	\neg
L	$\equiv 1$
L	ΞJ

Adobe Indesign CS/Cs2

early childhood inclusion through...

Breakthroughs

Peachpit Press, 2005. Softcover. Book Condition: Neu. Gebraucht - Sehr gut Unbenutzt. Schnelle Lieferung, Kartonverpackung. Abzugsfähige Rechnung. Bei Mehrfachbestellung werden die Versandkosten anteilig erstattet. - Adobe InDesign is taking the publishing world by storm and users are hungry for breakthrough solutions to...