



## Interaction of physical fields with nanostructured materials

Schlüsseltechnologien / Key Technologies

Band / Volume 211

ISBN 978-3-95806-450-8

Forschungszentrum Jülich GmbH  
Institute of Complex Systems  
Bioelectronics (ICS-8)

National Taras Shevchenko University of Kyiv  
Faculty of Radiophysics, Electronics and  
Computer Systems

## **Interaction of physical fields with nanostructured materials**

### Contributors

M.V. Petrychuk, V.I. Grygoruk, S.P. Pavlyuk, I.V. Serdeha,  
G.S. Felinskyi, V.I. Kanevskii, S.O. Koliienov, S.N. Savenkov,  
E.A. Oberemok, I.S. Kolomiets, A.S. Klimov, A.O. Sitnichenko,  
V.V. Oliynyk, V.V. Zagorodnii, L.Yu. Matzui, L.L. Vovchenko,  
I.A. Gural'skiy, O.I. Kucheriv, M.O. Popov, V.L. Launets,  
A.L. Nikytenko, S. Vitusevich

# INTERACTION OF PHYSICAL FIELDS WITH NANOSTRUCTURED MATERIALS

## LIST of CHAPTERS

	<b>INTRODUCTION</b>	7
<b>1</b>	<b>LIQUID-MEDIATED MOLECULE-SURFACE INTERACTIONS: SEMICONDUCTOR STRUCTURES WITH DIELECTRIC LAYERS FOR SENSOR APPLICATIONS</b>  M.V. Petrychuk, V.I.Grygoruk, S.P. Pavlyuk, S.Vitusevich	11
<b>2</b>	<b>LIGHT AMPLIFICATION BASED ON STIMULATED RAMAN EFFECT AND SPECTROSCOPIC MODELING OF RAMAN GAIN IN SINGLE MODE FIBERS</b>  V. I. Grygoruk, I. V. Serdeha, G. S. Felinskyi, S.Vitusevich	47
<b>3</b>	<b>LIGHT EFFECT FOR SUBNANO POLISHING OF QUARTZ COVERED WITH LAYER OF SODIUM HYPOCHLORITE AQUEOUS SOLUTION</b>  V.I. Grygoruk, V.I. Kanevskii, S.O. Kolienov, S.Vitusevich	119
<b>4</b>	<b>INTERACTION OF ELECTROMAGNETIC RADIATION WITH LINEAR ANIZOTROPIC MEDIUM: JONES MATRIX OF THE LINEAR ANIZOTROPY</b>  S.N.Savenkov, E.A. Oberemok, I.S. Kolomiets, A.S. Klimov, A.O.Sitnichenko, S.Vitusevich	171
<b>5</b>	<b>INTERACTION OF MICROWAVE RADIATION WITH NANOSTRUCTURED COMPOSITES: TOWARD EFFECTIVE SELECTIVE ADSORBERS</b>  V.I.Grygoruk, V.V. Oliynyk, V.V. Zagorodnii, L.Yu. Matzui, L.L. Vovchenko, I.A. Gural'skiy, O.I. Kucheriv, M.O. Popov, V.L. Launets, A.L. Nikytenko, S.Vitusevich	195
	<b>CONCLUSIONS</b>	251

Schlüsseltechnologien / Key Technologies

Band / Volume 211

ISBN 978-3-95806-450-8