

ACTA  
UNIVERSITATIS PALACKIANAE  
OLOMUCENSIS

FACULTAS RERUM NATURALIUM  
2003–2004

# PHYSICA 42–43

COLLECTED REPORTS  
OF THE NATURAL SCIENCE FACULTY,  
PALACKÝ UNIVERSITY OLOMOUC,  
CZECH REPUBLIC





ACTA  
UNIVERSITATIS PALACKIANAE  
OLOMUCENSIS

FACULTAS RERUM NATURALIUM (2003–2004)  
PHYSICA 42–43



ACTA  
UNIVERSITATIS PALACKIANAE  
OLOMUCENSIS  
FACULTAS RERUM NATURALIUM  
2003–2004

# PHYSICA 42–43

COLLECTED REPORTS  
OF THE NATURAL SCIENCE FACULTY,  
PALACKÝ UNIVERSITY OLOMOUC,  
CZECH REPUBLIC

This volume has been accepted to be printed on October 10, 2004.

The authors and reviewers are responsible for the content and for the translation of the papers.

© Vítězslav Bičík, Jaroslav Pospíšil, 2004

ISBN 80-244-0941-0

ISSN 0231-9772

## CONTENTS

<i>Vyšín, I. – Říha, J.:</i> None on the application of Drude term in the interpretation of crystalline optical activity .....	9
<i>Říha, J. – Vyšín, I. – Lapšanská, H.:</i> Application of three coupled oscillators model to the optical activity of benzil crystal .....	27
<i>Vyšín, I. – Říha, J. – Vavříková, H.:</i> Simple method of dispersion relations derivation in the crystalline optical activity .....	47
<i>Pospíšil, J. – Hrdý, J.:</i> Response approaches to digital electro-optical imaging systems under determined signal representations .....	63
<i>Pospíšil, J. – Jakubík, P. – Pluháček, F.:</i> Response approaches to digital electro-optical imaging systems under random signals .....	99
<i>Keprt, J. – Bartoněk, L. – Horáček, J. – Švec, J. G.:</i> Application of moire topography on the form of the plaster model of vocal folds .....	125
<i>Bartoněk, L. – Keprt, J.:</i> Structural image recognition in optical interferometry .....	135
<i>Hrabovský, M. – Kopřiva, M.:</i> Contributed paper to the quality evaluation of the weld of anticorrosive materials by EBW method .....	149
<i>Horváth, P. – Šmíd, P. – Hrabovský, M.:</i> The usage of a speckle correlation method for measurement of an object small deformation .....	157
<i>Stranyánek, M. – Hrabovský, M.:</i> FEM in the laser surface alloying process .....	175
<i>Nožka, L. – Mandát, D. – Hrabovský, M.:</i> The 3D optical scanning topography, theory and application .....	185
<i>Pintr, P. – Peřinová, V.:</i> The solar system from the quantization viewpoint .....	195
<i>Holubová, R.:</i> Multimedia in teaching physics .....	211

