

# OPTICA APPLICATA

Vol. XXX (2000) No. 1

PL ISSN 0078-5466

Index 367729

A joint publication of the

INSTITUTE OF PHYSICS,  
WROCLAW UNIVERSITY  
OF TECHNOLOGY,  
POLAND

&

SPIE/POLAND CHAPTER  
in association with  
SPIE—THE INTERNATIONAL SOCIETY  
FOR OPTICAL ENGINEERING

## Contents

Editorial .....	3
BADZIAK J., High-peak-power lasers at the IPPLM, Warsaw .....	5
WOŁOWSKI J., Study of laser-produced plasma by means of ion diagnostics at the IPPLM, Warsaw .....	27
PISARCZYK T., KASPERCZUK A., MIKLAZSEWSKI R., ZAKHAROV Y.P., Investigation of dynamic and stability of laser-produced plasma in strong external magnetic field .....	41
WOŁOWSKI J., PARYS P., WORYNA E., ZAKHAROV Y.P., ORISHICH A.M., EREMIN A.V., Laser-produced plasma for simulation of plasma jets propagation in geoplasma .....	61
WOŁOWSKI J., PARYS P., WORYNA E., KRÁSA J., LASKÁ L., ROHLENA K., GAMMINO S., CIAVOLA G., TORRISI L., BOODY F.P., HÖPFL R., HORA H., HASEROTH H., Laser ion sources for various applications .....	69
BADZIAK J., MAKOWSKI J., PARYS P., RYĆ L., WOŁOWSKI J., WORYNA E., VANKOV A., High-intensity interaction of picosecond laser pulses with metal target .....	83
FIEDOROWICZ H., BARTNIK A., SZCZUREK M., CANG HEE NAM, MOCEK T., HYUN JOON SHIN, YONG HO CHA, DONG GUN LEE, KYUNG HAN HONG, Femtosecond-pulse-driven soft X-ray laser studies using a gas puff target irradiated with a Ti:Sapphire laser .....	93
WIEWIÓR P., RADZEWICZ C., Dynamics of molecular liquids studied by femtosecond optical Kerr effect .....	103
WASYLCZYK P., Compact, alignment-free autocorrelator for femtosecond laser pulses .....	121
MAĆKOWIAK P., NAKWASKI W., Impact of mismatch-related phenomena on a room- temperature operation of nitride VCSELs .....	125
BORECKI M., KRUSZEWSKI J., KOPCZYŃSKI K., Concepts of fibre optic intensity sensors for liquid level measurement .....	141
SIKORSKI Z., PIOTROWSKI J., GRUDZIEN M., Electromagnetic limit of the optical gain for long-wave IR diffractive optics .....	151
JABCZYŃSKI J.K., Modelling of laser pumped intracavity frequency doubled laser ..	161
RYSIAKIEWICZ-PASEK E., ŁUKASZEWSKI P., BOGDAŃSKA J., Influence of water adsorption on mechanical properties of porous glasses .....	173
SUJECKI S., BENSON T. M., SEWELL P., KENDALL P.C., Tapered rib waveguides: fast and accurate finite difference beam propagation method .....	177
SĘK G., CIORGA M., BRYJA L., MISIEWICZ J., RADZIEWICZ D., ŚCIANA B., TŁACZALA M., Optical characterisation of strained-layer $\text{In}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ MQW LED grown by MOVPE .....	183

**Letters to the Editor**

<b>PERLICKI K., SIUZDAK J., Dispersion supported optical pulse compression . . . . .</b>	<b>189</b>
<b>ULATOWSKA A., PODBIELSKA H., Influence of organic dopant – urease on sol-gel matrix optical properties in visible range . . . . .</b>	<b>193</b>