

Contents

Basic informations	6
Briefly on the preceding years	9
Department of Technologies for Optoelectronic Structures, <i>O. Procházková</i>	15
Feedback relationships in optoelectronic devices, <i>F. Šrobár</i>	16
Preparation of GaInAsP/InP DC PBH lasers with quantum wells, <i>D. Nohavica, J. Těmínová</i>	17
InGaAsP/InP heterostructures usable for both coherent and noncoherent radiation sources, <i>J. Novotný, O. Procházková</i>	19
1.3 and 1.55 μm wavelength GaInAsP/InP DC PBH lasers, <i>D. Nohavica, D. Berková, J. Těmínová, J. Zelinka, K. Starosta, J. Kortán, V. Malina</i>	21
Department of Optoelectronic Structures and Devices, <i>J. Kortán</i>	23
Non-alloyed Ti/Au ohmic contacts to InP and InGaAsP, <i>V. Malina, E. Hájková, J. Zelinka</i>	24
Spectrum-optimized sources for optical fibre systems, <i>J. Kortán, K. Starosta, D. Berková</i>	25
Department for Characterization of Semiconductor Materials and Structures, <i>K. Žd'ánský</i>	27
p-n junction position and threshold current of InP/GaInAsP laser diodes for $\lambda = 1.3 \mu\text{m}$, <i>J. Walachová</i>	28
Wave propagation and threshold current of many-layer semiconductor lasers, <i>K. Žd'ánský</i>	29
Department of Coherent and Guided-Wave Optics, <i>J. Čtyroký</i>	32
Holographic optics, <i>M. Miler</i>	33
Optical guided-wave structures and devices, <i>J. Čtyroký</i>	34
Wavelength-division multi/demultiplexer for optical communications, <i>J. Janta</i> ..	36
Fibre-optic components, <i>M. Chomát, Z. Bartoň</i>	37
Department of Digital Systems, <i>J. Braun</i>	39
Speech processing, <i>R. Vích</i>	40
Signal analysis with the aid of instantaneous frequency and envelope, <i>V. Čížek</i> ..	41
Signal processors and their applications, <i>A. Magyar</i>	43

Communications Systems Department, <i>A. Kuchar</i>	45
Architectural studies on information transmission networks, <i>A. Kuchar</i>	46
Optimization of a triple clad single mode fibre, <i>M. Karásek</i>	47
Analysis of preamplifier 1/f noise influence on PIN-FET optical receiver sensitivity, <i>J. Šimša</i>	48
Frequency acquisition performance evaluation of phase-locked loops, <i>P. Hasan</i>	50
Polarization-maintaining optical fibres with stress-applying parts, <i>B. Stádník</i>	51
Time and Frequency Department, <i>O. Buzek</i>	53
Time synchronization using communications satellites, <i>O. Buzek, J. Čermák</i>	54
The Applied Research Division, <i>M. Trezzi</i>	56
Fibre diameter measuring instrument HOLODIA 2100N, <i>M. Miler, M. Ježek</i>	57
Diagnostic and monitoring system TRIPGUARD 3089, <i>M. Trezzi</i>	58
XXIII General Assembly of URSI in Prague 1990, <i>L. Kratěna, V. Čížek</i>	60
Selected publications	62