

BULK GROWTH AND EPITAXY

10 years of TDI: developing HVPE technology <i>A. Usikov, O. Kovalenkov, A. Syrkin, V.Soukhoveev, V. Ivantsov, L. Shapovalova, A. Volkova</i>	11
Hydride vapor phase epitaxy as a production method for free standing GaN substrates: technological breakthroughs and state of the art <i>B. Schineller, M. Heuken</i>	13
Hydride vapor phase epitaxy of indium containing group III nitrides <i>A.L.Syrkin, V.A.Ivantsov, O.Kovalenkov, A.Usikov, and <u>V.A.Dmitriev</u></i>	15
Vertical HVPE growth of bulk GaN crystals <i>Y.V. Zhilyaev, P.A. Ksenofontov, Y.N. Makarov, V.N.Pantelev, N.K.Poletaev, S.N.Rodin, A.S.Segal, S.A.Smirnov, I.V.Tolkanov, P.V.Tomashevich, X.Xelava</i>	17
Physical vapor transport growth of 2 inch diameter bulk aluminum nitride crystals <i>T.Yu. Chemekova, O.V. Avdeev, S.S. Nagalyuk, A.S. Segal, E.N. Mokhov, Yu.N. Makarov</i>	18
Modeling analysis of AlN and AlGaN chloride-hydride epitaxy <i>D.S. Bazarevskiy, M.V. Bogdanov, A.S. Segal, E.V. Yakovlev</i>	20
Production of aluminium nitride on sapphire in reducing medium <i>Kh.Sh-o. Kaltaev, S.V. Nizhankovskiy, A.Y. Dan'ko, N.S. Sidel'nikova, M.A.Rom, P.V. Mateychenko</i>	22
MOCVD reactors for large scale production of GaN material used in SSL and power electronic <i>F. Schulte, B. Schineller, A.Boyd, O.Rockenfeller, Y. Dikme</i>	23
Using of low-coherent tandem interferometry for GaN buffer layers growth optimization <i>P. Volkov, E. Vopilkin, A. Goryunov, V. Daniltsev, Y. Drozdov, A. Luk'yanov, A. Tertyshnik, O. Khrykin, and V. Shashkin</i>	24
HVPE growth of nonpolar a-plane GaN on c-plane sapphire <i>O. Kovalenkov, A. Volkova, A. Syrkin, and V. Ivantsov</i>	26
New method of production of Si-based substrates for low-defect GaN and AlN epitaxy <i>S.A. Kukushkin, A.V. Osipov, N.A. Feoktistov</i>	28
Quantitative analysis of <i>in-situ</i> wafer bow measurements for III-nitrides <i>E. Steimetz, M. Borasio, T. Trepk, and J.-T. Zettler</i>	30
Growth conditions and surface morphology of MOVPE-grown AlN <i>A.V. Lobanova, E.V. Yakovlev, R.A. Talalaev, S.B. Thapa, F. Scholz</i>	31
MOVPE of AlN using molecular nitrogen as nitrogen precursor <i>W.V. Lundin, E.E. Zavarin, M.A. Sinitsyn, M.A.Yagovkina, and A.F. Tsatsulnikov</i>	33
InGaAlN heterostructures for LEDs on patterned sapphire substrates <i>W.V.Lundin, E.E.Zavarin, M.A.Sinitsyn, A.E.Nikolaev, E.Yu.Lundina, A.V.Sakharov, S.I.Troshkov, and A.F.Tsatsulnikov</i>	35
Investigation of (0001) AlGaIn surface morphology during molecular beam epitaxial by RHEED <i>V. G. Mansurov, A. Yu. Nikitin, Yu. G. Galitsyn, K. S. Zhuravlev</i>	37
Nitridisation of gallium arsenide in low-energy plasma <i>D.O. Mazunov, V.I. Osinsky, V.G. Verbitsky, V.I. Glotov</i>	39

High-quality undoped and Mg-doped GaN(000̄r)/c-AlO ₃ epilayers grown by plasma-assisted molecular beam epitaxy <i>A.M. Mizerov, V.N. Jmerik, V.K. Kaidashev, T.A. Komissarova, S.A.Masalov and S.V. Ivanov</i>	41
An effective express method of characterization of SiC substrates <i>M.G. Mynbaeva</i>	43
Porous free-standing GaN substrates for improved homoepitaxial growth <i>M.G. Mynbaeva, A.E. Nikolaev, A.S. Zubrilov, N.V. Seredova, K.D. Mynbaev, A.A. Sitnikova</i>	45
Gas source molecular beam epitaxy of UV optoelectronic devices <i>S. A. Nikishin</i>	47
Exponential kinetics of 3-dimensional GaN nucleation on (0001) AlN surface by ammonia molecular beam epitaxy <i>A.Yu.Nikitin, V.G. Mansurov, Yu.G. Galitsyn, K.S. Zhuravlev, P. Tronc</i>	49
Growth of GaN/InGaN heterostructures by ammonia MBE using metal indium “wetting” layer <i>A.N.Alexeev, A.E.Byrnaz, D.M.Krasovitsky, M.V.Pavlenko, S.I.Petrov, Yu.V.Pogorelsky, I.A.Sokolov, M.A.Sokolov, M.V.Stepanov, A.P.Shkurko, V.P.Chaly</i>	51
AlN nanocrystals and nanothickness films: synthesis from vapor phase, structure and applications <i>B.V.Spitsyn, I.M.Kotina, A.V.Manchukovsky, V.P.Stoyan, V.V.Matveev</i>	53
Multistep surface defect-overgrowth procedure with ion-beam deposition–re-deposition of oxide nanosize layer for GaN films <i>A.V.Bespalov, A.I. Stognij, N.N. Novitski, A.S. Shulenkov</i>	55
Large area AlN/SiC template substrates <i>V.Soukhoveev, A. Volkova, V. Ivantsov, O. Kovalenkov, A. Syrkin, A. Usikov</i>	57
Properties of vertically aligned AlN nanoneedles grown by HVPE method <i>D.V. Tsvetkov, A.V. Davydov, I. Levin, A. Motayed, J. Melngailis</i>	59
Hydrogen effects in III-nitride MOVPE <i>E.V. Yakovlev, R.A. Talalaev, A.S. Segal, A.V. Lobanova, W.V. Lundin, E.E. Zavarin, M.A. Sinitsyn, A.F. Tsatsulnikov, A.E. Nikolaev</i>	61
Incorporation of Al in facet controlled epitaxial overgrowth of GaN <i>N.L.Yakovlev, H.L.Zhou, S.Tripathy, H.L.Seng, S.J.Chua</i>	63
On the role of hydrogen in formation of GaN epilayers <i>E.E.Zavarin, W.V.Lundin, M.A.Sinitsyn, Cherkashin, and A.F.Tsatsulnikov</i>	65
III-N BASED LEDs AND LDs: TECHNOLOGY AND PROPERTIES	
Flip-chip AlGaInN-based LEDs grown on SiC substrates <i>E.M. Arakcheeva, I.P. Smirnova, L.K. Markov, D.A. Zakheim, M.M. Kulagina</i>	67
Investigation and analysis of InGaN and AlGaInP LEDs quantum efficiency on current density in mode excluding sufficient heat generation <i>A.L. Arkhipov, S.G.Nikiforov</i>	69
The semiconductors light technique in the OSR “RISD” <i>A.P.Abramovskiy, N.N. Bakin, A.A. Vilisov, D.D. Karimbaev, T.I. Kochanenko, A.A. Ponomarev, P.N. Timchichshin, E.F. Yauk</i>	71
InGaN p-n junctions as gas sensors <i>Ptashchenko A.A., Ptashchenko F.A., Blazhnova O.A.</i>	72
The peculiarities of electroreflectance spectra of GaN/InGaN/AlGaIn heterostructures <i>L.P.Avakyants, M.V. Agapov, P.Yu. Bokov, A.V. Chervyakov, A.E. Yunovich, B.S. Yavich</i>	74
Effect of electron and optical confinement on performance of ultra-violet laser diodes <i>K.A. Bulashevich, M.S. Ramm, and S.Yu. Karpov</i>	76
Structure of internal thermal resistance of InGaN/GaN light-emitting diodes (analysis of die attach) <i>Y.A. Bumai, O.S. Vaskov, D.S. Domanevskii, S.A. Manego, U.V. Trophimov</i>	78

Temperature influence on REBEL LEDs efficiency <i>E. V. Lutsenko, A. V. Danilchik, M. V. Rzhetski, V. Z. Zubialevich, V. N. Pavlovskii, G. P. Yablonskii</i>	80
Electroluminescence of InGaN/GaN heterostructures grown on nonpolar LiAlO ₂ substrates <i>E. V. Lutsenko, A. V. Danilchik, M. V. Rzhetski, V. N. Pavlovskii, G. P. Yablonskii, M. Heuken, B. Schineller, Y. Dikme, H. Behmenburg, H. Kalisch, R. A. Jansen, T. C. Wen</i>	82
Quantum efficiency study for high power nitride LED <i>D. Lee, D. Byrne, F. Lu and W. Quinn</i>	84
The drop-shaped phosphor layer in the white LEDs <i>A.A. Bogdanov, A.V. Feopentov, L.M. Vtyurina</i>	86
Researches of light-emitting diodes of circular action in external cylindrical and parabola with cylinder reflectors <i>E.M.Gutzeit, L.M.Kogan, I.T.Rassohin, A.M.Sidorov</i>	88
Application of narrow-band color cathodoluminescence sem-mode to the study of defects in InGaN/AlGaN/GaN-heterostructures <i>P.V. Ivannikov, A.I. Gabelchenko, P.A. Miroshnikov, M.V. Chukichev, A.E. Yunovich, M.A. Agapov, E.D. Vasileva, B.S. Yavich</i>	90
Increasing efficiency of radiative recombination in AlGaN heterostructures with quantum wells grown by discrete submonolayer molecular beam epitaxy <i>V.N. Jmerik, A.M. Mizerov, T.V. Shubina, A.V. Sakharov, K.G. Belyaev, M.V. Zamoryanskaya, A.A. Sitnikova, P.S. Kop'ev, E.V. Lutsenko, A.V. Danilchik, N.V. Rzhetski, G.P. Yablonskii, S.V. Ivanov</i>	92
Analysis of non-thermal mechanisms responsible for efficiency droop in III-nitride light-emitting diodes <i>S.Yu.Karpov, K.A.Bulashevich, and V.F.Mymrin</i>	94
Powerful light-emitting diodes with ultra-violet and green emission <i>N.A.Galchina, L.M.Kogan, Y.A.Portnyagin, I.T.Rassohin, N.P.Soshcin</i>	96
New light-emitting diode fixtures <i>L.M. Kogan, I.T. Rassohin</i>	98
Ultra-violet LEDs grown on AlN substrates <i>W.V.Lundin, E.E.Zavarin, M.A.Simitsyn, A.E.Nikolaev, A.V.Sakharov, A.F.Tsatsulnikov, T.Yu.Chemekova, E.N. Mokhov, O.V. Avdeev, S.S. Nagalyuk, Yu.N. Makarov</i>	100
Use of InGaN/GaN LDs for pumping of "green" lasers based on ZnCdSe multiple quantum-dimensional insertions <i>E.V. Lutsenko, A.G. Vainilovich, A.V. Danilchik, V.N. Pavlovskii, N.P. Tarasuk, G.P. Yablonskii, S.V. Sorokin, I.V. Sedova, S.V. Gronin, and S.V. Ivanov</i>	102
Method of AlGaInN-based materials radiating properties degradation research by means of precision measurements of the luminous flux <i>S.G.Nikiforov, A.L. Arkhipov</i>	104
Partial coherence of emission of power LEDs, based on III-nitrides <i>V. I. Osinsky, E. I Novikov., A. V. Rakov</i>	106
Temperature dependence of injection efficiency in GaN-based LEDs <i>A.S. Pavluchenko, I.V. Rozhansky, D.A. Zakheim</i>	108
Investigation of pulse current overload influence on power light emitting diodes <i>A.G. Polishuk, A.N. Turkin, V.M. Kharitonov</i>	110
The investigation of neutron and gamma irradiation on lumen-ampere characteristics p-n ⁺ -n-heterostructures on the base of phosphide and nitride gallium, indium, aluminium <i>I.V. Rzhikov, V.S. Vinogradov, A.S. Firsov</i>	111
The components determinant progress in creation blue LEDs with high external quantum efficiency <i>N.M. Shmidt, M.G. Agapov, E.V. Bogdanova, A.A. Greshnov, A.E. Chernyakov, D.A. Lavrinovich, A.L. Zakgeim, V.V. Ratnikov, O.A. Soltanovich, V.V. Uelin, E.B. Yakimov</i>	113
Flip-chip AlGaInN-based LEDs with indium tin oxide p-contacts	115

<i>I.P.Smirnova, L.K.Markov, E.M.Arakcheeva, M.M.Kulagina, A.S.Pavlyuchenko</i>	
Garnet structure fluoride-oxide photoluminescent phosphors for white light-emitting diodes	117
<i>N.Soschin, Luo Weihong, P.Tsai</i>	
Warm white LEDs based on InGaN/AlGaIn/GaN p-n- heterostructures covered with garnet phosphors	119
<i>N.P.Soschin, N.A.Galchina, L.M.Kogan, S.S.Shirokov, A.E.Yunovich</i>	
Ion-beam formation of transparency ohmic contact BeO/Au/BeO to p-type GaN	121
<i>A.I. Stognij, N.N. Novitski, E.V. Lutsenko, A.S. Shulenkov, A.V.Bespalov A.A. Evdokimov</i>	
Electroluminescence area localization in LEDs heterostructures with GaN/InGaIn MQWs	123
<i>A.A. Arendarenko, I.G. Ermoshin, Yu.N. Sveshnikov, I.N. Tsyplenkov</i>	
Comparative efficacy analysis of power blue LEDs	125
<i>Yu.V. Trofimov, V.I. Tsvirko, P.P. Aslamov</i>	
Investigation of pulse current overload influence on power light emitting diodes degradation	127
<i>A.G. Polishuk, A.N. Turkin, V.M. Kharitonov</i>	
Investigation of «chip+phosphor» system for effective white light-emitting diodes	128
<i>A.E. Yunovich, A.N. Turkin, S.S. Shirokov, R. Jabbarov, N. Musayeva, F. Scholz, T. Wunderer</i>	
High-power blue and white LEDs IRS50/MK24: design and characteristics in comparison with world best analogues	130
<i>D.A.Antononkov, D.A.Bauman A.A.BogdanovE.D.Vasilyeva, A.L.Zakgeim, D.A.Zakgeim, G.V.Itkinson, A.E.Chernyakov, A.V.Feopentov</i>	
Study of heat -distribution in high-power InGaIn/GaN LEDs using infrared thermovision microscopy	132
<i>A.L.Zakgeim, M.N.Mizerov, A.E.Chernyakov, N.M.Shmidt</i>	
A dynamic-controlled high power LED luminaire for “smart” illumination systems	134
<i>S.V.Demin, A.L.Zakgeim, A.E.Chernyakov, M.N.Mizerov, O.N.Saraev, A.F.Chumachenko</i>	
P-active region InGaIn blue light emitting heterostructures	136
<i>D.A.Zakheim, D.A.Bauman, M.G.Agapov</i>	
Modelling of the degradation processes of gallium nitride semiconductor radiating structures making use of the damage processes in ablation of the materials by femtosecond laser pulses	138
<i>I.N. Zavestovskaya, P.G. Eliseev, O.N.Krokhin</i>	
III-N BASED HEMTs: TECHNOLOGY AND PROPERTIES	
FSUE "S&PE "PULSAR": experience of GaN FET design	140
<i>I.M. Abolduyev, N.B. Gladysheva, A.A. Dorofeev, Yu. V. Kolkovskiy, V.M. Minnebaev</i>	
GaN based heterostructures for HEMT	142
<i>I.G. Ermoshin, Yu.N. Sveshnikov, I.N. Tsyplenkov</i>	
Electrical and noise characteristics of GaN nanowire transistors	144
<i>S. L. Rumyantsev, M. S. Shur, M. E. Levinshtein, A. Motayed, and A. V. Davydov</i>	
Effects of electron irradiation on GaN-based transistor structures	146
<i>A.Y. Polyakov, N.B. Smirnov, A.V. Govorkov, N.G. Kolin, V.M. Boiko, D.I. Merkurisov, S.J. Pearton</i>	
The frequency characteristics of AlGaIn/GaN- HEMT's with different gate length and gate width	148
<i>V.G.Mokerov, A.L.Kuznetsov, Yu.V.Fedorov, A.S.Bugaev, A.Yu.Pavlov, E.N.Enushkina, D.L.Gnatjuk, A.V.Zuev, R.R.Galiev, Yu.N.Sveshnikov, A.F.Tsatsulnikov, V.M.Ustinov</i>	
Multilayer heterostructures AlN/AlGaIn/GaN/AlGaIn with high electron sheet density	150
<i>A.N.Alexeev, A.E.Byrnaz, D.M.Krasovitskiy, M.V.Pavlenko, S.I.Petrov, Yu.V.Pogorelskiy, I.A.Sokolov, M.A.Sokolov, M.V.Stepanov, A.P.Shkurko, V.P.Chaly</i>	
Multilayer heterostructures AlN/AlGaIn/GaN/AlGaIn for power microwave transistors on heat conducting substrates	151
<i>A.N.Alexeev, A.E.Byrnaz, D.M.Krasovitskiy, M.V.Pavlenko, S.I.Petrov, M.Yu.Pogorelskiy, I.A.Sokolov, M.A.Sokolov, M.V.Stepanov, A.P.Shkurko, V.P.Chaly</i>	

PROPERTIES OF III-N BASED LAYERS AND HETEROSTRUCTURES

Self-compensation of shallow donors in AlN: high-frequency EPR and ENDOR studies <i>P.G. Baranov, A.P. Bundakova, S.B. Orlinskii, J. Schmidt, M. Bickermann, B.M. Epelbaum, A. Winnacker</i>	153
Accumulation nanolayer of ultrathin Cs, Ba/n-InGaN interfaces <i>G.V. Benemanskaya, M.N. Lapushkin, C.N. Timoshnev, V.N. Jmerik</i>	155
Schottky alloyed ohmic contact for gallium and aluminium nitrides <i>T.V. Blank, Yu.A. Goldberg, O.V. Konstantinov, E. A. Posse</i>	157
Local charge neutrality level in nitrides A ₃ N: BN, AlN, GaN, InN <i>Brudnyi V.N., Kosobutskii A.V., Kolin N.G.</i>	159
Surface states on the n-InN – electrolyte interface <i>A.A. Gutkin, M.E. Rudinsky, P.N. Brunkov, A. A. Klochikhin, V. Yu. Davydov, H.-Y. Chen, S. Gwo</i>	161
Investigation of SAW in sublimation aluminum nitride monocrystals <i>T.Yu. Chemekova, A.V. Sotnikov, R. Kunze, H. Schmidt, M. Wehnacht, E.N. Mokhov, Yu.N. Makarov</i>	163
To the calculation of the spontaneous polarizations and dielectric susceptibilities of III-N compounds <i>S.Yu. Davydov</i>	165
Studies of lattice dynamics of InN:Mg <i>V. Yu. Davydov, M. B. Smirnov, Yu.E. Kitaev, A.A. Klochikhin, A.N. Smirnov, I.N. Goncharuk, William J. Schaff, S. Gwo</i>	167
The lineshape of light emitting diodes with single InGaN/GaN quantum well with highly doped barriers <i>D.S. Domanevskii, B. G. Arnaudov, D.S. Bobuchenko, U.V. Trophimov, R.D. Kakanakov</i>	169
Optical, electrical properties and structural features of AlGaIn/GaN heterostructures grown by MOCVD and MBE <i>K. Enisherlova, I.B. Gulyaev, E.M. Temper, T.F. Rusak, N.B. Gladisheva</i>	171
Electronic states and optical properties of the dense array of quantum dots w-GaN/AlN (0001) <i>S. N. Grinyayev, G. F. Karavaev, K.S. Zhuravlev, P. Tronc</i>	173
Self-heating and phonon decay in GaN and AlN <i>Mark Holtz</i>	175
Electrical properties of Mg-doped GaN and Al _x Ga _{1-x} N <i>T.A. Komissarova, V.N. Jmerik, A.M. Mizerov, N.M. Shmidt, D.R. Khokhlov, S.V. Ivanov</i>	179
A wide temperature range diagnostic complex of admittance spectroscopy for heterostructure investigations: LEDs with multiquantum wells InGaIn/GaN <i>O.V. Kucherova, V.I. Zubkov, E.O. Tsvelev, A.V. Solomonov</i>	181
Anisotropy of elastic strains end the defect structure of GaN layers grown on r-plane of sapphire <i>R.N. Kyutt, V.V. Ratnikov, M.P. Sheglov</i>	183
Low-threshold laser action at optical pumping and luminescence of InGaIn/GaN electroluminescent test heterostructures grown on silicon <i>E.V. Lutsenko, A.G. Vainilovich, A.V. Danilchuk, V.N. Pavlovskii, N.P. Tarasuk, and G.P. Yablonskii, H. Kalisch, R.H. Jansen, H. Behnenburg, Y. Dikme, B. Schineller, and M. Heuken</i>	185
X-ray diffraction study of GaN/Al ₂ O ₃ (0001) structures <i>Diakonov L.I., Kozlova Y.P., Markov A.V., Mezhenyeni M.V., Pavlov V.F., Yugova T.G.</i>	187
Free carriers spatial separation inside (In,Ga)N/GaN quantum well <i>A.N. Pikhtin, O.V. Kucherova, S.A. Tarasov, H. Lipsanen, S. Suihkonen</i>	189
Doping non-uniformities and the influence of layer thickness on crystalline quality and deep traps spectra in ELOG GaN films grown on sapphire <i>A.Y. Polyakov, N.B. Smirnov, A.V. Govorkov, A.V. Markov, E.B. Yakimov, P.S. Vergeles, In-Hwan Lee, S.J. Pearton</i>	191
Electrical properties and defect structure of undoped nonpolar m-GaN on m-SiC films grown by standard MOCVD and by lateral overgrowth	192

<i>A.Y. Polyakov, N.B. Smirnov, A.V. Govorkov, A.V. Markov, T.G. Yugova, E.A. Petrova, E.B. Yakimov, P.S. Vergeles, H. Amano, T. Kawashima</i>	
Stresses and strains in a-InN on r-sapphire <i>V.V. Ratnikov, R.N. Kyutt</i>	194
Defects influence on the tunnel current in (0001) w-GaN/AlGaIn structures <i>A.N. Razzhuvalov, S.N. Grinyayev</i>	196
Electrical and optical properties of gallium nitride studied by surface photovoltage and photoluminescence techniques <i>M. A. Reshchikov, M. Fousekis, and A. A. Baski</i>	198
Investigation of non radiative recombination and carriers transport between InGaN/(Al)GaIn QDs <i>V.S. Sizov, A.V. Sakharov, A.F. Tsatsulnikov, V.V. Lundin</i>	200
Raman and X-ray studies of $\text{In}_x\text{Ga}_{1-x}\text{N}$ alloys <i>A.N. Smirnov, V.Yu. Davydov, I.N. Goncharuk, M.A. Yagovkina, E.E. Zavarin, M.A. Sinitsyn, William J. Schaff, and S.Gwo</i>	202
On the temperature dependence of an apparent carrier distribution obtained by capacitance-voltage profiling in InGaIn light-emitting heterostructures <i>O.A. Soltanovich, N.M. Shmidt, E.B. Yakimov</i>	204
Origin of ferromagnetism in wurtzite $\text{Ga}_{1-x}\text{Mn}_x\text{N}$ semiconductors <i>F. Wilhelm, E. Sarigiannidou, E. Monroy, and A. Rogalev</i>	206
EBIC characterization of spatially inhomogeneous GaIn films <i>A.Y. Polyakov, N.B. Smirnov, A.V. Govorkov, P.S. Vergeles, E.B. Yakimov</i>	208
Nonradiative recombination in GaIn/AlIn quantum dots <i>I.A. Aleksandrov, K.S. Zhuravlev, V.G. Mansurov, A.Yu. Nikitin</i>	210
Micro-hardness of InGaIn and InAlIn epitaxial layers grown by HVPE <i>V.I. Nikolaev, A.E. Nikolaev, E.A. Klemet'ev</i>	212
III-N – RELATED MATERIALS	
Deposition of solid solutions $(\text{SiC})_{1-x}(\text{AlN})_x$ films by magnetron sputtering of compound sources <i>M.K. Kurbanov, B.A. Bilalov, G.K. Safaraliev, Sh.M. Ramazanov</i>	214
Optical, electrical and structural properties of solid solutions $(\text{SiC})_{1-x}(\text{AlN})_x$ <i>Sh.M. Ramazanov, M.K. Kurbanov, B.A. Bilalov, G.K. Safaraliev</i>	216
Models of canals scattering phonons and the thermal conductivity calculations of structures solid solutions $(\text{SiC})_{1-x}(\text{AlN})_x$ <i>B.A. Kazarov, N.V. Balandina, V.I. Altukhov</i>	218
Nature of arising band in the epitaxial layers GaIn and in the structures with quantum wells InGaIn/GaIn under Eu doping <i>V.V. Krivolapchuk, M.M. Mezdrogina, E.Ju. Danilovskii, R.V. Kuzmin, A.N. Trofimov, Ju.V. Tubolzev, M.V. Zamorjanskaja</i>	220
Heterostructures n-ZnO/p-GaIn<Er+Zn>, p-AlGaIn<Er+Zn> <i>M.M. Mezdrogina, V.V. Krivolapchuk, E.Yu. Danilovskii, R.V. Kuzmin, S.V. Razumov, S.A. Kukushkin, A.V. Osipov</i>	222
MASS PRODUCTION OF III-N STRUCTURES	
Initiative of Russian Corporation of Nanotechnologies On development of LED industry <i>S.S. Polikarpov</i>	224
High yield and throughput MOCVD system for solid state lighting <i>A. Gurary, W. Quinn, E. Armour, S. Raman, and S. Kim</i>	225
Mass production of efficacious AlInGaIn wafers for blue LEDs <i>D.A. Bauman, E.D. Vasilyeva, A.L. Zakgeim, D.A. Lavrinovich, V.V. Uelin, A.E. Chernyakov, N.M. Schmidt, B.S. Yavich</i>	227