

List of publications (1983-2021) by T. Mtchedlidze (Mchedlidze)

- 1** Quantitative interpretation of mass-spectra obtained on using photographic recording and unification of the concept of relative sensitivity factors
Authors L. Abeleva, E. Andrikanis, V. Belousov, V. Glinskikh, S. Gronskaya, V. Davydov, A. Zelenin, G. Ivanova, M. Kaviladze, I. Kovalev, D. Kormilitsyn, O. Kryuchkova, N. Larin, T. Mchedlidze, D. Nabichvrishvili, K. Ordzhonikidze, G. Ramendik, O. Samadashvili, L. Sepiashvili, D. Smolyaninova, V. Udalov, E. Chibirova and O. Yureva
Journal Journal of Analytical Chemistry of the USSR
Year 1983 **Vol** 38 **No** 1 **Pages** 141-146
- 2** Dependence of the relative sensitivity coefficients in spark-source and laser mass-spectrometry on the matrix composition and matrix modification conditions in the source
Authors G. Ramendik, O. Kryuchkova, M. Kaviladze, T. Mchedlidze and D. Tyurin
Journal Journal of Analytical Chemistry of the USSR
Year 1983 **Vol** 38 **No** 10 **Pages** 1333-1340
- 3** A method for allowing for the width of mass-spectrum lines during analysis on double-focusing photorecording instruments
Authors M. Kaviladze, T. Mchedlidze and G. Ramendik
Journal Journal of Analytical Chemistry of the USSR
Year 1983 **Vol** 38 **No** 11 **Pages** 1528-1530
- 4** Factors affecting the relative sensitivity coefficients in spark and laser plasma source-mass spectrometry
Authors G. Ramendik, O. Kryuchkova, D. tyurin, T. Mchedlidze and M. Kaviladze
Journal International Journal of Mass Spectrometry and Ion Processes **DOI** 10.1016/0168-1176(85)87036-1
Year 1985 **Vol** 63 **No** 1 **Pages** 1-15
- 5** Combined resonance at dislocations in silicon
Authors V. Kveder, V. Kravchenko, T. Mchedlidze, Y. Osipyan, D. Khmel'nitskii and A. Shalynin
Journal Soviet Physics: JETP Letters
Year 1986 **Date** Feb 25 **Vol** 43 **No** 4 **Pages** 255-259
- 6** Analytical performance of the EMAL-2 mass-spectrometer with laser ion-source
Authors V. Liebich, G. Ramendik, A. Blokin, U. Hermann, T. Mchedlidze, U. Stahlberg, M. Kaviladze
Journal Journal Of Analytical Chemistry Of the USSR
Year 1987 **Vol** 66 **No** 10 **Pages** 1408-1419
- 7** Combined electron resonance in a one-dimensional dislocation band
Authors V.V. Kveder, T.R. Mchedlidze, Y. A. Osipian, A.I. Shalynin
Journal Soviet Physics: JETP
Year 1987 **Date** Oct **Vol** 66 **No** 4 **Pages** 838-843
- 8** Specific features of microwave absorption of superconducting ceramics in a magnetic field
Authors V. V. Kveder, T. R. Mchedlidze, Y. A. Osipian, A. I. Shalynin
Journal Novel Superconductivity. Proc. of Int. Workshop on Novel Mechanisms of Superconductivity **DOI** 10.1007/978-1-4613-1937-5_111
Year 1987 **Pages** 897-900

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- 9** Characteristics of microwave losses in a superconducting ceramic subjected to a magnetic field
Authors V. V. Kveder, T. R. Mchedlidze, Y. A. Osipian, A. I. Shalynin
Journal Soviet Physics: JETP Letters
Year 1987 **Vol** 46 **Pages** S148-S151
- 10** Temperature dependence of conduction by reconstructed dislocations and nonlinear effects
Authors V. V. Kveder, A. E. Koshelev, T. R. Mchedlidze, Y. A. Ossipyan, A. I. Shalynin
Journal Soviet Physics: JETP
Year 1989 **Date** Jan **Vol** 68 **No** 1 **Pages** 104-108
- 11** Conductivity along dislocations: temperature dependence and nonlinear effects. Combined resonance and structure peculiarities of plastically deformed silicon
Authors V. V. Kveder, T. R. Mchedlidze, Y. A. Osipian, A. I. Shalynin
Journal Solid State Phenomena
Year 1989 **Vol** 6-7 **Pages** 301-308
- 12** Investigation of one-dimensional defects in Si using the EDSR
Authors V. V. Kveder, T. R. Mchedlidze, Y. A. Osipian, A. I. Shalynin
Journal Proc. Int. Conf. "science and Technology of Defect Control in Semiconductors", Yokohama, Japan, K. Sumino (ed.), Elsevier Science Publishers B.v. (North-Holland)
Year 1990 **Pages** 1417-1422
- 13** Relation of combined resonance in plastically deformed n-Si with dislocation-structure
Authors V. V. Kveder, T. R. Mchedlidze, Y. A. Osipian, A. I. Shalynin
Journal Soviet Physics: Solid State
Year 1990 **Date** Aug **Vol** 32 **No** 8 **Pages** 1292-1295
- 14** Electric-dipole spin-resonance of dislocations in plastically deformed p-type silicon
Authors M. Wattenbach, C. Kisielowski-kemmerich, H. Alexander, V. V. Kveder, T. R. Mchedlidze, Y. Ossipyan
Journal Physica Status Solidi (b) **DOI** 10.1002/pssb.2221580150
Year 1990 **Date** Mar **Vol** 158 **No** 1 **Pages** K49-K53
- 15** Anisotropy and temperature-dependence of the electric-dipole spin-resonance on dislocations in p-Si
Authors V. V. Kveder, T. R. Mchedlidze
Journal Soviet Physics: JETP
Year 1992 **Date** Jul **Vol** 75 **No** 1 **Pages** 92-98
- 16** Defect states in Si containing dislocation nets
Authors S. A. Shevchenko, Y. A. Ossipyan, T. R. Mchedlidze, E. A. Steinman, and R. A. Batto
Journal Physica Status Solidi (a) **DOI** 10.1002/pssa.2211460219
Year 1994 **Date** Dec **Vol** 146 **Pages** 745-755
- 17** Electric-dipole spin-resonance study on extended defects in Czochralski-grown silicon developed by thermal-treatment
Authors T. R. Mchedlidze, V. V. Kveder, J. Jablonski, and K. Sumino
Journal Physical Review B **DOI** 10.1103/PhysRevB.50.1511
Year 1994 **Date** Jul 15 **Vol** 50 **No** 3 **Pages** 1511-1518

List of publications (1983-2021) by T. Mchedlidze (Mchedlidze)

- 18** Electrical transport in SixGe1-x bulk alloys
Authors T. R. Mchedlidze, I. Yonenaga, A. Matsui, and K. Sumino
Journal Materials Science Forum **DOI** 10.4028/www.scientific.net/MSF.196-201.353
Year 1995 **Vol** 196 **Pages** 353-357
- 19** Subsurface damage in single diamond tool machined Si wafers
Authors T. R. Mchedlidze, I. Yonenaga, and K. Sumino
Journal Materials Science Forum **DOI** 10.4028/www.scientific.net/MSF.196-201.1841
Year 1995 **Vol** 196 **Pages** 1841-1845
- 20** Oxygen precipitation in cz silicon crystals contaminated with iron
Authors J. Jablonski, B. Shen, T. R. Mchedlidze, M. Imai, and K. Sumino
Journal Materials Science Forum **DOI** 10.4028/www.scientific.net/MSF.196-201.1859
Year 1995 **Vol** 196 **Pages** 1859-1863
- 21** The direct observation of grown-in laser scattering tomography defects in czochralski silicon
Authors M. Nishimura, S. Yoshino, H. Motoura, S. Shimura, T. Mchedlidze, T. Hikone
Journal Journal of the Electrochemical Society **DOI** 10.1149/1.1837159
Year 1996 **Date** Oct **Vol** 143 **No** 10 **Pages** L243-L246
- 22** Hall effect in anisotropic SixGe1-x polycrystals
Authors T. R. Mchedlidze, I. Yonenaga
Journal Japanese Journal of Applied Physics, Part 1 **DOI** 10.1143/JJAP.35.652
Year 1996 **Date** Feb **Vol** 35 **No** 2A **Pages** 652-655
- 23** Effect of oxidizing ambient on the buried oxide synthesis in low-dose SIMOX
Authors J. Jablonski, Y. Miyamura, T. R. Mchedlidze, M. Saito, T. Katayama, M. Imai, and S. Nakashima
Journal Proc. 7th International Symposium on Silicon-on-insulator Technology and Devices, P. L. F. Hemment, S. Cristosloveanu, K. Izumi, T. Houston, S. Wilson (eds.), Electrochemical Soc., (Pennington, NJ, USA)
Year 1996 **Pages** 47-52
- 24** Silicon incorporation in a shallow donor center in hydrogenated Czochralski-grown Si crystals: an EPR study
Authors V. P. Markevich, T. Mchedlidze, and M. Suezawa
Journal Physical Review B **DOI** 10.1103/PhysRevB.56.R12695
Year 1997 **Date** Nov **Vol** 56 **No** 20 **Pages** 12695-12697
- 25** EPR study of hydrogen-related radiation-induced shallow donors in silicon
Authors V. P. Markevich, T. Mchedlidze, M. Suezawa, and L. I. Murin
Journal Physica Status Solidi (b) **DOI** 10.1002/(SICI)1521-3951(199812)210:2<545::AID-PSSB545>3.0.CO;2-L
Year 1998 **Date** Dec **Vol** 210 **No** 2 **Pages** 545-549
- 26** Electrically detected magnetic resonance signal from iron contaminated Czochralski silicon crystal
Authors T. Mchedlidze and K. Matsumoto
Journal Journal of Applied Physics **DOI** 10.1063/1.367160
Year 1998 **Date** Apr **Vol** 83 **No** 8 **Pages** 4042-4048

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- 27** Gate-controlled pn-junction leakage current for wide range of perimeter-to-area ratios --- an increase in the leakage current caused by defects related to oxygen precipitation and its temperature dependence ---
Authors H. Uchiyama, T. Mchedlidze, K. Matsumoto, M. Nisimura, and K. Yamabe
Journal Electrochem. Soc. Procs.
Year 1998 **Vol** 98-1 **Pages** 1262-1273
- 28** Dependence of electrically detected magnetic resonance signal shape from iron-contaminated silicon wafers on the thermal treatment of the samples
Authors T. Mchedlidze, K. Matsumoto, T. C. Lin, and M. Suezawa
Journal Physica B - Condensed Matter **DOI** 10.1016/S0921-4526(99)00491-3
Year 1999 **Date** Dec 15 **Vol** 273-274 **Pages** 404-407
- 29** Electrical activity of defects induced by oxygen precipitation in Czochralski-grown silicon wafers
Authors T. Mchedlidze, K. Matsumoto, and E. Asano
Journal Japanese Journal of Applied Physics, Part 1 **DOI** 10.1143/JJAP.38.3426
Year 1999 **Date** Jun **Vol** 38 **No** 6A **Pages** 3426-3432
- 30** N⁺P-junction leakage current caused by oxygen precipitation defects and its temperature dependence
Authors H. Uchiyama, K. Matsumoto, T. Mchedlidze, M. Nisimura, and K. Yamabe
Journal Journal of the Electrochemical Society **DOI** 10.1149/1.1391934
Year 1999 **Date** Jun **Vol** 146 **No** 6 **Pages** 2322-2327
- 31** Iron gettering in czochralski silicon: can spin-dependent recombination give new information?
Authors T. Mchedlidze, K. Matsumoto, and M. Suezawa
Journal Procs. of the Kazusa Academia Park Forum on the science and technology of silicon materials'99, K. Sumino (ed.), (Kizarasu, Japan)
Year 1999 **Date** Oct **Pages** 35-41
- 32** Incorporation of oxygen or di-hydrogen in silicon monovacancy: spin-resonance study of defect excited state
Authors T. Mchedlidze, N. Fukata, and M. Suezawa
Journal Physica B - condensed Matter **DOI** 10.1016/S0921-4526(01)00888-2
Year 2001 **Date** Dec **Vol** 308 **Pages** 321-324
- 33** New electron spin resonance spectra from iron-vacancy pair in silicon: II. hyperfine interactions and isotopic effect
Authors T. Mchedlidze and M. Suezawa
Journal Physica B-condensed Matter **DOI** 10.1016/S0921-4526(01)00760-8
Year 2001 **Date** Dec **Vol** 308 **Pages** 400-403
- 34** New electron spin resonance spectra from iron-vacancy pair in silicon: I. defect with two values for the spin
Authors T. Mchedlidze and M. Suezawa
Journal Physica B-condensed Matter **DOI** 10.1016/S0921-4526(01)00769-4
Year 2001 **Date** Dec **Vol** 308 **Pages** 421-423

List of publications (1983-2021) by T. Mchedlidze (Mchedlidze)

- 35** Modeling the subsurface region of Cz-Si wafers with properly fabricated bulk FZ-Si samples
Authors T. Mchedlidze, N. Fukata, and M. Suezawa
Journal Physica B-condensed Matter **DOI** 10.1016/S0921-4526(01)00745-1
Year 2001 **Date** Dec **Vol** 308 **Pages** 474-476
- 36** Magnetic resonance studies of shallow donor centers in hydrogenated Cz-Si crystals
Authors B. Langhanki, S. Greulich-Weber, J. M Spaeth, V. P. Markevich, L. I. Murin, T. Mchedlidze, and M. Suezawa
Journal Physica B-condensed Matter **DOI** 10.1016/S0921-4526(01)00431-8
Year 2001 **Date** Aug **Vol** 302 **Pages** 212-219
- 37** Platinum–hydrogen complexes in silicon observed by measurements of optical absorption and electron spin resonance
Authors N. Fukata, T. Mchedlidze, M. Suezawa, K. Saito, and A. Kasuya
Journal Applied Physics Letters **DOI** 10.1063/1.1491008
Year 2002 **Date** Jul **Vol** 81 **No** 1 **Pages** 40-42
- 38** Properties of an iron-vacancy pair in silicon
Authors T. Mchedlidze and M. Suezawa
Journal Japanese Journal of Applied Physics, Part 1 **DOI** 10.1143/JJAP.41.7288
Year 2002 **Date** Dec **Vol** 41 **No** 12 **Pages** 7288-7292
- 39** Complexes of platinum and hydrogen in silicon observed by optical absorption and electron spin resonance
Authors N. Fukata, T. Mchedlidze, M. Suezawa, K. Saito, and A. Kasuya
Journal Physical Review B **DOI** 10.1103/PhysRevB.66.235209
Year 2002 **Date** Dec 15 **Vol** 66 **No** 23 **Pages** 235209
- 40** Author's comment on "new electron spin resonance spectra from iron-vacancy pair in silicon: I. defect with two values for the spin. II. hyperfine interactions and isotopic effect"
Authors T. Mchedlidze and M. Suezawa
Journal Physica B-condensed Matter **DOI** 10.1016/S0921-4526(02)01296-6
Year 2002 **Date** Nov-Dec **Vol** 324 **No** 1-4 **Pages** 188-190
- 41** Properties of platinum-hydrogen complexes in silicon: an ESR study
Authors T. Mchedlidze, N. Fukata, and M. Suezawa
Journal Japanese Journal of Applied Physics, part 2-Letters **DOI** 10.1143/JJAP.41.L967
Year 2002 **Date** Sep 15 **Vol** 41 **No** 9A-B **Pages** L967-L969
- 42** Many optical absorption peaks observed in electron-irradiated n-type Si
Authors M. Suezawa, N. Fukata, T. Mchedlidze, and A. Kasuya
Journal Journal of Applied Physics **DOI** 10.1063/1.1519343
Year 2002 **Date** Dec 1 **Vol** 92 **No** 11 **Pages** 6561-6566
- 43** ESR spectra from platinum-hydrogen pair in silicon
Authors T. Mchedlidze, N. Fukata, and M. Suezawa
Journal Japanese Journal of Applied Physics, part 2 - Letters **DOI** 10.1143/JJAP.41.L609
Year 2002 **Date** Jun1 **Vol** 41 **No** 6A **Pages** L609-L611
- 44** Gate-oxide integrity evaluation using non-ideal metal-oxide-silicon capacitor structures
Authors T. Mchedlidze
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.82-84.735
Year 2002 **Date** Aug **Vol** 82-84 **Pages** 735-740

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- 45** ESR signature of tetra-interstitial defect in silicon
Authors T. Mchedlidze, I. Yonenaga, and M. Suezawa
Journal Materials Science In Semiconductor Processing **DOI** 10.1016/j.mssp.2003.07.015
Year 2003 **Date** Oct-Dec **Vol** 6 **No** 5-6 **Pages** 263-266
- 46** Features of isotopic shift in the fine structure term of ESR spectra from iron-vacancy pair in silicon
Authors T. Mchedlidze and M. Suezawa
Journal Physica B - Condensed Matter **DOI** 10.1016/j.physb.2003.09.136
Year 2003 **Date** Dec 31 **Vol** 340 **No** **Pages** 556-560
- 47** Correlation between ESR and infrared absorption signals from platinum-hydrogen complexes in silicon
Authors T. Mchedlidze, N. Fukata, and M. Suezawa
Journal Physica B - Condensed Matter **DOI** 10.1016/j.physb.2003.10.006
Year 2003 **Date** Dec 31 **Vol** 340 **No** **Pages** 650-653
- 48** High-resolution photoinduced transient spectroscopy of electrically active iron-related defects in electron irradiated high-resistivity silicon
Authors P. Kaminski, R. Kozlowski, A. Jelenski, T. Mchedlidze, and M. Suezawa
Journal Japanese Journal of Applied Physics, Part 1 **DOI** 10.1143/JJAP.42.5415
Year 2003 **Date** Sep **Vol** 42 **No** 9A **Pages** 5415-5419
- 49** Electron spin resonance signal from a tetra-interstitial defect in silicon
Authors T. Mchedlidze and M. Suezawa
Journal Journal of Physics - Condensed Matter **DOI** 10.1088/0953-8984/15/22/303
Year 2003 **Date** Jun 11 **Vol** 15 **No** 22 **Pages** 3683-3688
- 50** Properties and formation mechanism of tetra-interstitial agglomerates in hydrogen-doped silicon
Authors T. Mchedlidze and M. Suesawa
Journal Physical Review B **DOI** 10.1103/PhysRevB.70.205203
Year 2004 **Date** Nov **Vol** 70 **No** 20 **Pages** 205203
- 51** An iron-phosphorus pair in silicon
Authors T. Mchedlidze and M. Suezawa
Journal Journal of Physics - Condensed Matter **DOI** 10.1088/0953-8984/16/8/L02
Year 2004 **Date** Mar 3 **Vol** 16 **No** 8 **Pages** L79-L84
- 52** Influence of hydrogen on the formation of interstitial agglomerates in silicon
Authors T. Mchedlidze and M. Suezawa
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.95-96.129
Year 2004 **Date** Sep **Vol** 95-96 **Pages** 129-134
- 53** Magnetic resonance signatures of grown-in defects in GaInNP alloys grown on a GaAs substrate
Authors I. P. Vorona, T. Mchedlidze, M. Izadifard, I. A. Buyanova, W. M. Chen, Y. G., Hong, H. P. Xin, and C. W. Tu
Journal Applied Physics Letters **DOI** 10.1063/1.1943487
Year 2005 **Date** May 30 **Vol** 86 **No** 22 **Pages** 222110 (3)

List of publications (1983-2021) by T. Mchedlidze (Mchedlidze)

- 54** Formation and properties of iron-phosphorus and iron-phosphorus-hydrogen complexes in silicon
Authors T. Mchedlidze
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.108-109.379
Year 2005 **Date** Dec **Vol** 108-109 **Pages** 379-384
- 55** Electric-dipole spin-resonance signals related to extended interstitial agglomerates in silicon
Authors T. Mchedlidze, S. Binetti, A. Le Donne, S. Pizzini, and M. Suezawa
Journal Journal of Applied Physics **DOI** 10.1063/1.2001750
Year 2005 **Date** Aug 15 **Vol** 86 **No** 4 **Pages** 261904
- 56** Band alignment in GaInNP/GaAs heterostructures grown by gas-source molecular-beam epitaxy
Authors M. Izadifard, T. Mchedlidze, I. Vorona, W. M. Chen, I. A. Buyanova, Y. G. Hong, and C. W. Tu
Journal Applied Physics Letters **DOI** 10.1063/1.1952586
Year 2005 **Date** Jun 27 **Vol** 86 **No** 26 **Pages** 261904 (3)
- 57** Magnetic Resonance Signatures Of Grown-in Defects In GaInNP Alloys Grown On A GaAs Substrate
Authors I. P. Vorona, T. Mchedlidze, M. Izadifard, I. A. Buyanova, W. M. Chen, Y. G. Hong, H. P. Xin, and C. W. Tu
Journal Applied Physics Letters **DOI** 10.1063/1.1943487
Year 2005 **Date** May 30 **Vol** 86 **No** 22 **Pages** 222110 (3)
- 58** Effect of nitrogen ion bombardment on defect formation and luminescence efficiency of GaNP epilayers grown by molecular-beam epitaxy
Authors D. Dagnelund, I. A. Buyanova, T. Mchedlidze, W. M. Chen, A. Utsumi, Y. Furukawa, A. Wakahara, and H. Yonezu
Journal Applied Physics Letters **DOI** 10.1063/1.2182028
Year 2006 **Date** Mar 6 **Vol** 88 **No** 10 **Pages** 101904 (3)
- 59** Residual stress in Si nanocrystals embedded in a SiO₂ matrix
Authors T. Arguirov, T. Mchedlidze, M. Kittler, R. Rölver, B. Berghoff, M. Först, and B. Spangenberg
Journal Applied Physics Letters **DOI** 10.1063/1.2260825
Year 2006 **Date** Jul 31 **Vol** 89 **No** 5 **Pages** 053111 (3)
- 60** Signatures of grown-in defects in GaInNP alloys grown on a GaAs substrate from magnetic resonance studies
Authors I. P. Vorona, T. Mchedlidze, M. Izadifard, I. A. Buyanova, W. M. Chen, Y. G. Hong, and C. W. Tu
Journal Physica B - Condensed Matter **DOI** 10.1016/j.physb.2005.12.144
Year 2006 **Date** Apr 1 **Vol** 376 **Pages** 571-574
- 61** Optically detected magnetic resonance studies of point defects in Ga(Al)NAs
Authors I. P. Vorona, T. Mchedlidze, D. Dagnelund, I. A. Buyanova, W. M. Chen, and K. Kohler
Journal Physical Review B **DOI** 10.1103/PhysRevB.73.125204
Year 2006 **Date** Mar **Vol** 73 **No** 12 **Pages** 125204
- 62** Involvement of iron-phosphorus complexes in iron gettering for n-type silicon
Authors T. Mchedlidze and M. Kittler
Journal Physica Status Solidi (a) **DOI** 10.1002/pssa.200564512
Year 2006 **Date** Mar **Vol** 203 **No** 4 **Pages** 786-791

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- 63** 1.5 μm emission from a silicon MOS-LED based on a dislocation network
Authors M. Kittler, M. Reiche, X. Yu, T. Arguirov, O.f. Vyvenko, W. Seifert, T. Mchedlidze, G. Jia And T. Wilhelm
Journal International Electron Devices Meeting. IEDM '06. **DOI** 10.1109/IEDM.2006.346912
Year 2006 **Date** Dec **Pages** 346912 (4)
- 64** Silicon nanostructures for IR light emitters
Authors M. Kittler, T. Arguirov, W. Seifert, X. Yu, G. Jia, O. F. Vyvenko, T. Mchedlidze, M. Reiche, J. Sha, and D. Yang
Journal Materials Science & Engineering: C **DOI** 10.1016/j.msec.2006.09.034
Year 2007 **Date** Sep **Vol** 27 **No** 5-8 **Pages** 1252-1259
- 65** Influence of dislocation loops on the near-infrared light emission from silicon diodes
Authors T. Hoang, J. Holleman, P. Leminh, J. Schmitz, T. Mchedlidze, T. Arguirov, and M. Kittler
Journal IEEE Transactions on Electron Devices **DOI** 10.1109/TED.2007.901072
Year 2007 **Date** Aug **Vol** 54 **No** 8 **Pages** 1860-1866
- 66** Signatures of distinct structures related to rod-like defects in silicon detected by various measurement methods
Authors T. Mchedlidze, T. Arguirov, G. Jia, and M. Kittler
Journal Physica Status Solidi (a) **DOI** 10.1002/pssa.200675447
Year 2007 **Date** Jul **Vol** 204 **No** 7 **Pages** 2229-2237
- 67** Regular dislocation networks in silicon as a tool for nanostructure devices used in optics, biology, and electronics
Authors M. Kittler, X. Yu, T. Mchedlidze, T. Arguirov, O. F. Vyvenko, W. Seifert, M. Reiche, T. Wilhelm, M. Seibt, O. Voss, A. Wolff, and W. Fritzsche
Journal Small **DOI** 10.1002/smll.200600539
Year 2007 **Date** Jun **Vol** 3 **No** 6 **Pages** 964-973
- 68** Structural and optical properties of Si/SiO₂ multi-quantum wells
Authors T. Mchedlidze, T. Arguirov, M. Kittler, R. Rölver, B. Berghoff, M. Foerst, and B. Spangenberg
Journal Physica E - Low-dimensional Systems & Nanostructures **DOI** 10.1016/j.physe.2006.12.022
Year 2007 **Date** Apr **Vol** 38 **No** 1-2 **Pages** 152-155
- 69** Effect of laser annealing on crystallinity of the Si layers in Si/SiO₂ multiple quantum wells
Authors T. Arguirov, T. Mchedlidze, V. D. Akhmetov, S. Kouteva-arguirova, M. Kittler, R. Rölver, B. Berghoff, M. Först, D. I. Bätzner, and B. Spangenberg
Journal Applied Surface Science **DOI** 10.1016/j.apsusc.2007.07.150
Year 2007 **Date** Dec **Vol** 254 **No** 4 **Pages** 1083-1086
- 70** Identification of point defects in Ga(Al)NAs alloys
Authors I. P. Vorona, T. Mchedlidze, D. Dagnelund, I. A. Buyanova, W. M. Chen, and K. Kohler
Journal AIP Conference Proceedings **DOI** 10.1063/1.2729851
Year 2007 **Date** Jan **Vol** 893 **Pages** 227-228
- 71** Influence of electric field on spectral positions of dislocation-related luminescence peaks in silicon: Stark effect
Authors T. Mchedlidze, T. Arguirov, M. Kittler, T. Hoang, J. Holleman, and J. Schmitz
Journal Applied Physics Letters **DOI** 10.1063/1.2813024
Year 2007 **Date** Nov 12 **Vol** 91 **No** 20 **Pages** 201113 (3)

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- 72** Combined CL/EBIC/DLTS investigation of a regular dislocation network formed by Si wafer direct bonding
Authors X. Yu, O. Vyvenko, M. Kittler, W. Seifert, T. Mchedlidze, T. Arguirov, and M. Reiche
Journal Semiconductors **DOI** 10.1134/S1063782607040197
Year 2007 **Date** Oct **Vol** 41 **No** 4 **Pages** 458-461
- 73** Dislocations in silicon as a tool to be used in optics, electronics and biology
Authors M. Kittler, M. Reiche, T. Arguirov, T. Mchedlidze, W. Seifert, O. F. Vyvenko, T. Wilhelm, and X. Yu
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.131-133.289
Year 2008 **Date** Oct **Vol** 131-133 **Pages** 289-292
- 74** Engineering of dislocation-loops for light emission from silicon diodes
Authors T. Mchedlidze, T. Arguirov, M. Kittler, T. Hoang, J. Holleman, P. Leminh, and J. Schmitz
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.131-133.303
Year 2008 **Date** Oct **Vol** 131-133 **Pages** 303-308
- 75** Regular dislocation networks in Si. Part II: luminescence
Authors T. Mchedlidze, T. Wilhelm, X. Yu, T. Arguirov, G. Jia, M. Reiche, and M. Kittler
Journal Solid State Phenomena **DOI** 10.4028/www.scientific.net/SSP.131-133.503
Year 2008 **Date** Oct **Vol** 131-133 **Pages** 503-510
- 76** Regular dislocation networks in silicon. Part I: structure
Authors T. Wilhelm, T. Mchedlidze, X. Yu, T. Arguirov, M. Kittler, and M. Reiche
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