

## POSTER SESSION A Monday, May 17 19<sup>00</sup> - 21<sup>00</sup>

- A 1 STRUCTURAL RELAXATION IN  $\text{Rb}_3\text{H}(\text{SO}_4)_2$  PROTONIC CONDUCTOR** B. Hilczer, T. Pawłowski, M. Połomska, L. Kirpichnikov *Institute of Molecular Physics, Polish Academy of Sciences, Poznań, Poland*
- A 2 MECHANISM OF INCLUSION OF 3d-IONS INTO ZINC OXALATE DIHYDRATE. I. SORPTION ONTO ZINC OXALATE IN AQUEOUS OXALATE SOLUTIONS** J. Pencheva, B. Donkova, M. Djarova, S. Maksimova *Faculty of Chemistry, University of Sofia, Bulgaria*
- A 3 MECHANISM OF INCLUSION OF 3d-IONS INTO ZINC OXALATE DIHYDRATE. II. EQUILIBRIUM DISTRIBUTION COEFFICIENTS** B. Donkova, J. Pencheva, M. Djarova *Faculty of Chemistry, University of Sofia, Bulgaria*
- A 4 ON THE ORIGIN OF SUPERSATURATION BARRIERS DURING THE GROWTH OF SINGLE CRYSTALS FROM AQUEOUS SOLUTIONS CONTAINING IMPURITIES** K. Sangwal *Department of Applied Physics, Lublin University of Technology,*
- A 5 RELATIONSHIP BETWEEN THE ORIENTATION AND FREQUENCY OF OCCURRENCE OF ELEMENTARY STEPS AND THEIR ENERGY ON THE  $\{010\}$  CLEAVAGE FACES OF POTASSIUM ACID PHTHALATE SINGLE CRYSTALS** J. Borc, K. Sangwal *Department of Applied Physics, Lublin University of Technology, Poland*
- A 6 IN SITU INTERFEROMETRIC INVESTIGATION OF HILLOCK MORPHOLOGY OF THE PRISMATIC FACE OF KDP GROWING IN GEL** Mariusz J. Krasieński *Institute of Physics, Technical University, Łódź, Poland*
- A 7 THE STABILITY OF THE SUPERSATURATED SOLUTIONS OF SYNTHOMYCIN AND LEVOMYCETIN** V.A. Kuznetsov, T.M. Okhrimenko and M. Rak, *Institute of Crystallography, Russian Academy of Sciences Moscow, Russia*
- A 8 PROPERTIES OF THE FCC METALLIC CRYSTALS IN TERMS OF THE SELF-CONSISTENT PHONON THEORY.** J. Tomaszewski, C. Malinowska-Adamska, P. Stoma *Institute of Physics, Technical University of Łódź, Poland*
- A 9 INTERRELATION BETWEEN SHAPE OF SEED AND TIME-DEPENDENT CRYSTAL MORPHOLOGY** Jolanta Prywer, *Institute of Physics, Technical University of Łódź, Poland*
- A 10 GROWTH OF TWO-DIMENSIONAL GROWTH OF KOSSEL CRYSTAL – DEPENDENCE OF THEIR HABITS ON THE DYNAMIC PARAMETERS** Jolanta Prywer, Stanisław Krukowski *Institute of Physics, Technical University of Łódź, Poland*
- A 11 NUCLEATION OF INSULIN CRYSTALS IN A WIDE CONTINUOUS SUPERSATURATION GRADIENT** A.N. Penkova, I.L. Dimitrov and Chr.N. Nanev, *Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria*
- A 12 ENHANCED NUCLEATION OF PROTEIN CRYSTALS IN EXTERNAL ELECTRIC FIELDS DUE TO ELECTRICALLY-DRIVEN CONVECTION** A.N. Penkova, I.L. Dimitrov, F.V. Hodjaoglu, P. G. Vekilov, *Institute of Physical Chemistry, Bulgarian Academy of Sciences, Sofia, Bulgaria*
- A 13 TRANSIENT BEHAVIOUR OF SURFACE CONCENTRATION OF AD-GROWTH UNITS CAUSED BY AN ABRUPT CHANGE IN BULK SUPERSATURATION MONTE CARLO SIMULATIONS FOR CRYSTAL FACE WITH STEPS.** Mirosława Rak Andrzej Brozi *Institute of Physics, Technical University of Łódź, Poland*
- A 14 SPECTRAL BROADENING IN QUANTUM DOT STRUCTURES** M. Wasiaak, M. Bugajski *Institute of Physics, Technical University of Łódź, Poland*
- A 15 STUDY ON SHAPED SINGLE CRYSTAL GROWTH AND SCINTILLATING PROPERTIES OF BI-DOPED RARE-EARTH GARNETS** A. Novoselov A. Yoshikawa, M. Nikl, N. Solovieva, T. Fukuda, *Institute of Multidisciplinary Research for Advanced Materials,*
- A 16 INVESTIGATION OF OPTICAL HOMOGENEITY IN YAG:YB SINGLE CRYSTALS BY POLARISCOPE METHODS** A. L. Bajor, M. Świrkowicz, *Institute of Electronic Materials Technology, Warszawa, Poland*
- A 17 XPS INVESTIGATIONS OF  $\text{Y}_3\text{Al}_5\text{O}_{12} : \text{Yb}$  SINGLE CRYSTAL** M. Kruczek, E. Talik, H. Sakowska, M. Gała *Institute of Physics, University of Silesia, Katowice, Poland*
- A 18 DETERMINATION OF GROWTH CONDITIONS AND STRUCTURE OF  $\text{SrAl}_{0.5}\text{Ta}_{0.5}\text{O}_3 : \text{LaAlO}_3 : \text{CaAl}_{0.5}\text{Ta}_{0.5}\text{O}_3$  CRYSTALS** R. Aleksiyo, M. Berkowski J. Fink-Finowicki, R. Diduszko, P. Byszewski, R. Kikalejshvili-Domukhovska *Institute of Physics, Polish Academy of Sciences, Al. Lotników 32/46, 02-668 Warsaw,*
- A 19 RAMAN SCATTERING STUDY OF SAT : LA : CAT SOLID SOLUTION SINGLE CRYSTALS** T. Runka, R. Aleksiyo, M. Berkowski and M. Drozdowski *Faculty of Technical Physics, Poznan University of Technology Poznań, Poland*
- A 20 SYNCHROTRON X-RAY INVESTIGATION OF LSAT CRYSTALS** W. Wierzychowski, K. Wieteska, W. Graeff, H. Sakowska, T. Łukasiewicz *Institute of Electronic Materials Technology, Warsaw, Poland*
- A 21 CZOCHRALSKI CRYSTAL GROWTH OF PRALO<sub>3</sub> - CRYSTAL WITH THE PHASE TRANSITION** D. A. Pawlak T. Łukasiewicz, M. Carpentier, J. Kisielewski, *Institute of Electronic Materials Technology, Warsaw, Poland*

- A 22 X-RAY TOPOGRAPHY OF SRLAGAO<sub>4</sub> SINGLE CRYSTALS** M.Lefeld-Sosnowska, A.Malinowska, A.Pajęczkowska, A.Kłos  
*Institute of Experimental Physics, University of Warsaw, Warsaw, Poland*
- A 23 DEVELOPMENT OF THE METHOD OF Li/Nb RATIO DETERMINATION IN LiNbO<sub>3</sub> SINGLE CRYSTALS**  
V.V.Geras'kin, A.A. Blistanov, Zh.A. Goreeva, J.V. Kljuhina, *Moscow State Institute of Steel and Alloys, Moscow, Russia*
- A 24 TOP SEEDED SOLUTION GROWTH OF POTASSIUM LITHIUM NIOBATE (KLN) CRYSTALS** Á.Péter, K.Polgár,  
G.Dravec and K.Lengyel *Research Institute for Solid State Physics and Optics Hungarian Academy of Sciences Budapest, Hungary*
- A 25 GROWTH OF COMPLEX OXIDE COMPOUNDS IN BULK-PROFILED CONFIGURATION** L.I.Ivleva, N.M.Polozkov, I.S.  
*Voronina Laser Materials and Technologies Research Center, GPI, Russian Academy of Sciences, Moscow, Russia*
- A 26 FTIR ABSORPTION STUDY OF HYDROXYL IONS IN KH<sub>0</sub>(WO<sub>4</sub>)<sub>2</sub> SINGLE CRYSTALS** L. Kovács, M. T. Borowiec,  
A.Majchrowski, A. Baraldi, R. Capelletti *Research Institute for Solid State Physics and Optics, Hungarian Academy of Sciences, Budapest, Hungary*
- A 27 NON-LINEAR ACOUSTOOPTICAL MATERIAL. SINGLE CRISTALS LITHIUM IODATE NON-TRADITION FORM (PROFILED)** A.A. Blistanov, V.V. Geras'kin, N.S. Kozlova, O.G. Portnov, K.M.Rozin *Moscow State Institute of Steel and Alloys, Moscow, Russia*
- A 28 THE PHENOMENON OF ELECTROCHEMICAL SELF-DECOMPOSITION IN POLAR DIELECTRICS SINGLE CRYSTALS** A.A. Blistanov, N.S. Kozlova, V.V. Geras'kin *Moscow State Institute of Steel and Alloys, Moscow, Russia*
- A 29 GROWTH AND OPTICAL PROPERTIES OF CALCITE SINGLE CRYSTALS** V.L. Borodin, I.V. Nefedova , *All-Russian Research Institute for Synthesis of Minerals (VNIISIMS), Aleksandrov, Russia*
- A 30 GROWTH AND BEAM RESISTANCE OF SYNTHETIC CALCITE SINGLE CRYSTALS** I.V.Nefedova, V.L.Borodin, S.V. Muravyov, N.I. Leonyuk *All-Russian Research Institute for Synthesis of Minerals(VNIISIMS), Aleksandrov, Russia*
- A 31 SURFACE PHONONS IN LiCsSO<sub>4</sub> CRYSTAL** A. Trzaskowska, S. Mielcarek, B. Mróz *Faculty of Physics, A. Mickiewicz University, Poznań, Poland,*
- A 32 DETERMINATION OF OPTICAL PARAMETERS OF LANGASITE CRYSTALS** O.A. Busanov, V.V. Geras'kin, I.S. Didenko, E.V. Zabelina, N.S. Koslova *Moscow State Institute of Steel and Alloys, 119049, Leninski Prospect, 4, Moscow, Russia*
- A 33 PARTIALLY STABILIZED ZIRCONIA SINGLE CRYSTALS. NOVEL TRENDS IN GROWTH AND INVESTIGATION** M.A. Borik, E.E. Lomonova, V.V. Osiko, V.A. Panov, O.E. Porodinkov, M.A. Vishnyakova, Yu.K. Voron'ko, V.V. Voronov , *Laser Materials and Technologies Research Center of GPI, Russian Academy of Sciences Moscow, Russia.*
- A 34 CHARACTERIZATION OF BISMUTH TRIBORATE SINGLE CRYSTAL USING BRILLOUIN AND RAMAN SPECTROSCOPY** D. Kasprówicz, A. Majchrowski, T. Runka, M. Szybowicz, P. Ziobrowski, E. Michalski, M. Drozdowski, *Faculty of Technical Physics, Poznan University of Technology, Poznań, Poland*
- A 35 GROWTH OF HIGH OPTICAL QUALITY β- BAB<sub>2</sub>O<sub>4</sub> (BBO) CRYSTALS IN BAB<sub>2</sub>O<sub>4</sub>-NABABO<sub>3</sub> SYSTEM** A.E.Kokh, N.G. Kononova, P.P.Fedorov, T.B.Bekker *Branch of the Institute of Mineralogy and Petrography SB RAS, Novosibirsk, Russia*
- A 36 POLYFUNCTIONAL BORATE MATERIALS: FROM BULK CRYSTALS TO MINIATURE COMPONENTS** N.I. Leonyuk, *Department of Crystallography and Crystal Chemistry Moscow State University, Moscow, Russia*
- A 37 GROWTH DEFECTS IN GDCA<sub>4</sub>O(BO<sub>3</sub>)<sub>3</sub> SINGLE CRYSTALS** E.Olszyńska, M.Lefeld-Sosnowska, A.Kłos, A.Pajęczkowska, *Institute of Experimental Physics, University of Warsaw, Warsaw, Poland*
- A 38 STUDY OF MICROHARDNESS OF DIFFERENT PLANES OF GADOLINIUM CALCIUM OXYBORATE SINGLE CRYSTALS** K. Sangwal, A. Kłos *Department of Applied Physics, Lublin University of Technology, Lublin, Poland*
- A 39 GROWTH AND INVESTIGATION OF 2<sup>nd</sup> HARMONIC GENERATION IN GdCOB CRYSTALS** A.L. Bajor , A. Kłos, *Institute of Electronic Materials Technology, Warszawa, Poland*
- A 40 SYMMETRY AND OPTICAL PROPERTIES OF RARE EARTH DOUBLE TUNGSTATES** M.T.Borowiec, L.Kovács, V.Dyakov T.Zayarnyk, H.Szymczak, *Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*
- A 41 OPTICAL SPECTROSCOPY OF Er<sup>3+</sup>-DOPED KY(WO<sub>4</sub>)<sub>2</sub> SINGLE CRYSTALS** M.T.Borowiec, A.Watterich, V.P.Dyakov, A.D.Prochorov, *Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*
- A 42 CRYSTAL GROWTH AND OPTICAL PROPERTIES OF IRON AND MIXED TITANIUM- IRON SILLENITE (Bi<sub>25</sub>FeO<sub>40</sub> AND Bi<sub>12</sub>Fe<sub>x</sub>Ti<sub>1-x</sub>O<sub>20</sub>)** M.T.Borowiec, A.Majchrowski, A. Watterich, L.Kovács, J.Žmija, T.Zayarnyk, M.Barański, H.Szymczak, *Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*
- A 43 PHOTOCONDUCTIVITY AND PHOTOCHROMISM OF Bi<sub>12</sub>Ti<sub>1-x</sub>Pb<sub>x</sub>O<sub>20</sub> SINGLE CRYSTALS** M.T.Borowiec, A.Majchrowski, J.Žmija, A.Suchocki, T.Zayarnyk, M.Barański, H.Szymczak, *Institute of Physics, Polish Academy of Sciences, Warsaw, Poland*

- A 44 SINGLE CRYSTALS OF COBALT PEROVSKITES GROWN BY TRAVELING SOLVENT FLOATING ZONE METHOD** E.Pomjakushina, K.Conder, A.Podlesnyak, S.Streule *Laboratory for Neutron Scattering, ETHZ & PSI, CH-5232 Villigen PSI, Switzerland*
- A 45 THE INFLUENCE OF THE SYNTHESIS CONDITIONS ON SUPERCONDUCTIVITY IN  $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_{4-y}$**  M.Plebańczyk, W.Sadowski, T.Klimczuk, T.Gortenmulder *Faculty of Applied Physics and Mathematics, Gdańsk University of Technology*
- A 46 CRYSTAL GROWTH OF LOW-DIMENSIONAL  $\text{CaV}_4\text{O}_9$  AND  $\text{SrCu}_2(\text{BO}_3)_2$  MAGNETIC** V.Maltsev, N. Leonyuk *Moscow State University, Moscow, Russia*
- A 47 CRYSTAL GROWTH FEATURES AND PROPERTIES OF LAYERED RARE EARTH AND BARIUM COBALTATES** G.L. Bychkov, S.V. Shiryayev, A.G. Soldatov, A.S. Shestak, S.N. Barilo, D.V. Sheptyakov, K. Conder, A. Podlesnyak, A. Furrer *Institute of Solid State & Semiconductor Physics, BAS, Minsk, Belarus*
- A 48 SINGLE CRYSTAL GROWTH OF THE COBALTATES  $\text{LnBaCo}_4\text{O}_{7+\delta}$  (Ln=Y, Tb) AND  $\text{TbBaCo}_2\text{O}_{5.5+\delta}$**  A. G. Soldatov, A. S. Shastak, K. Conder, E. Pomjakushina, A. Podlesnyak. *Laboratory for Superconducting Materials Physics, ISSSP, Minsk, Belarus*
- A 49 CRYSTALLIZATION OF  $\text{Cu}_5\text{Bi}_2\text{B}_4\text{O}_{14}$  IN FLUX SYSTEM  $\text{Bi}_2\text{O}_3\text{-B}_2\text{O}_3\text{-CuO}$**  L.N. Bezmaternykh, I.A.Gudim, V.L. Temerov L.V.Kirensky *Institute of Physics, Krasnoyarsk, Akademgorodok*
- A 50 AMMONOTHERMAL SYNTHESIS OF ALUMINUM NITRIDE** A.I. Motchanyy, A.A. Reu, P.P. Chvanski, V.S. Kovalenko, V.G. Balakirev *All-Russian Research Institute for Synthesis of Minerals (VNIISIMS), Alexandrov, Vladimir Distr., Russia*
- A 51 XPS INVESTIGATIONS OF  $\text{InP:S}$  SUBSTRATES WASHED WITH WATER AND ALCOHOL** M. Adamiec, E. Talik and A. Gładki *Institute of Physics, University of Silesia, Katowice, Poland*
- A 52 BIREFRINGENCE DISPERSION MEASUREMENTS AS A COMPLEMENTARY TOOL FOR INVESTIGATION OF  $\text{GaAs}$  AND  $\text{InP}$**  Andrzej L. Bajor and Andrzej Gładki *Institute of Electronic Materials Technology, Warszawa,*
- A 53 EFFECT OF IRON DIFFUSION ON THE FORMATION OF COMPENSATION DEFECT CENTRES IN  $\text{InP}$**  R. Kozłowski S. Strzelecka, P. Kamiński, M. Pawłowski, E. Wegner, and M. Piersa *Institute of Electronic Materials Technology Warszawa, Poland*
- A 54 INVESTIGATION OF SEMI-INSULATING  $\text{InP}$  CO-DOPED WITH Ti AND VARIOUS ACCEPTORS FOR USE IN X-RAY DETECTION** K. Zdąnsky, L. Pekarek, V. Gorodynskyy and H. Kozak *Institute of Radio Engineering and Electronics, Academy of Sciences of the Czech Republic,*
- A 55 HIGH-RESOLUTION PHOTOINDUCED TRANSIENT LAPLACE SPECTROSCOPY (PITLS) AS A NEW TOOL TO STUDY DEFECT CENTRES IN SEMI-INSULATING  $\text{GaAs}$  CRYSTALS** Michał Pawłowski *Institute of Electronic Materials Technology, Warszawa, Poland*
- A 56 GROWTH OF  $\text{Al}_x\text{Ga}_{1-x}\text{N}$  BULK SINGLE CRYSTALS** P. Geiser, S.M. Kazakov, P. Wägli, L. Klemm, J. Karpinski, B. Batlogg *Laboratory for Solid State Physics, ETH Zurich*
- A 57  $\text{GaSb}$  MICROLENSSES FABRICATED BY PHOTO AND E-BEAM LITHOGRAPHY AND DRY ETCHING** E. Papis, A.Piotrowska, E. Kamińska, T.T. Piotrowski, K. Gołaszewska, L. Ilka, R. Kruszka, J. Ratajczak, J. Kątcki, J. Wróbel, M. Aleszkiewicz, R. Łukasiewicz *Institute of Electron Technology, Warsaw, Poland*
- A 58 OHMIC CONTACTS STUDY FOR  $\text{GaN}$ -BASED LASER DIODES** A. Piotrowska, E. Kamińska, K. Gołaszewska, M.Wiatroszak, T.T. Piotrowski, A. Barcz, J. Dennemarck, S. Figge, T. Böttcher, and D. Hommel *Institute of Electron Technology, Warsaw, Poland*
- A 59 SOLVENT –THERMAL METHOD FOR FOR BULK  $\text{GaN}$  SINGLE CRYSTAL GROWTH** T.I. Shin, and D.H. Yoon *Department of Advanced Materials Engineering, Sungkyunkwan University, Suwon 440-746, Korea*