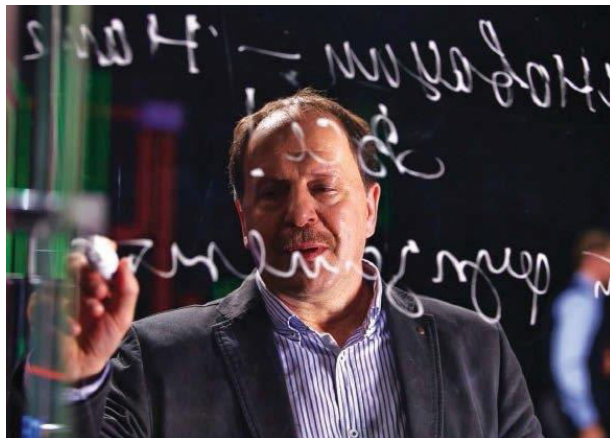


# Сергей Григорьевич Псахье



2 марта 1952 г. - 22 декабря 2018 г.

На 67 году жизни скоропостижно скончался известный ученый **Сергей Григорьевич Псахье**. Физик-теоретик, член-корреспондент Российской академии наук, директор Института физики прочности и материаловедения Сибирского отделения РАН, председатель Президиума Томского научного центра СО РАН, профессор кафедры теории прочности и проектирования Томского государственного университета.

Сергей Григорьевич Псахье родился 2 марта 1952 года. Научную карьеру начал в 1977 году, став аспирантом Томского государственного университета. С 1984 года его жизнь и карьера были связаны с Институтом физики прочности и материаловедения (ИФПМ) РАН – сначала он был старшим сотрудником, затем заведующим лабораторией компьютерного конструирования материалов. В 2002 году возглавил ИФПМ РАН. В 2011 году избран членом-корреспондентом Российской академии наук. Автор и соавтор более 300 научных работ, в том числе 20 патентов.

Сергей Григорьевич был большим другом и автором нашего журнала «В мире науки» и портала «Научная Россия». Всегда был готов ярко, интересно и доступно рассказать о сложнейших научных исследованиях, которыми занимался. Был очень доброжелательным, интеллигентным, жизнерадостным человеком.

Выражаем глубокие соболезнования и сочувствие родным и близким Сергея Григорьевича. Скорбим вместе с вами.

«В одном мгновенье видеть вечность, огромный мир – в зерне песка, в единой горсти – бесконечность и небо – в чашечке цветка» (Уильям Блейк). Любимые строки Сергея Григорьевича Псахье.

«Он был совершенно потрясающий человек. Находящиеся рядом с ним люди понимали, что он поможет в любую минуту, с полуслова понимая, как и чем нужно помочь. Лично мне он ни один раз спасал жизнь. Для меня это настоящий ученый и в прикладной и в фундаментальной науке. Его работы особенно ценны с точки зрения внедрения и инноваций, о которых мы сегодня говорим. По многим направлениям он совершенно выдающийся ученый, к примеру, в материаловедении», - сказал "Научной России" советник генерального директора РКК "Энергия" Александр Черняховский.

Источник: <https://scientificrussia.ru/news/ushel-iz-zhizni-fizik-sergej-psahe>

## Список основных научных публикаций С.Г. Псахье

1. KORCHUGANOV, AV; TYUMENTSEV, AN; ZOLNIKOV, KP; LITOYCHENKO, IY; KRYZHEVICH, DS; GUTMANAS, E; LI, SX; WANG, ZG; PSAKHIE, SG.  
NUCLEATION OF DISLOCATIONS AND TWINS IN FCC NANOCRYSTALS: DYNAMICS OF STRUCTURAL TRANSFORMATIONS  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 35(1), 201-206 (2019)
2. GRIGORIEV, AS; SHILKO, EV; SKRIPNYAK, VA; PSAKHIE, SG.  
KINETIC APPROACH TO THE DEVELOPMENT OF COMPUTATIONAL DYNAMIC MODELS FOR BRITTLE SOLIDS  
INTERNATIONAL JOURNAL OF IMPACT ENGINEERING 123, 14-25 (2019)
3. SMOLIN, AY; SHILKO, EV; ASTAFUROV, SV; KOLUBAEV, EA; EREMINA, GM; PSAKHIE, SG.  
UNDERSTANDING THE MECHANISMS OF FRICTION STIR WELDING BASED ON COMPUTER SIMULATION USING PARTICLES  
DEFENCE TECHNOLOGY 14(6), 643-656 (2018)
4. TARASOV, SY; FILIPPOV, AV; SAVCHENKO, NL; FORTUNA, SV; RUBTSOV, VE; KOLUBAEV, EA; PSAKHIE, SG.  
EFFECT OF HEAT INPUT ON PHASE CONTENT, CRYSTALLINE LATTICE PARAMETER, AND RESIDUAL STRAIN IN WIRE-FEED ELECTRON BEAM ADDITIVE MANUFACTURED 304 STAINLESS STEEL  
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY 99(9-12), 2353-2363 (2018)
5. GRINYAEV, YV; CHERTOVA, NV; SHILKO, EV; PSAKHIE, SG.  
THE CONTINUUM APPROACH TO THE DESCRIPTION OF SEMI-CRYSTALLINE POLYMERS DEFORMATION REGIMES: THE ROLE OF DYNAMIC AND TRANSLATIONAL DEFECTS  
POLYMERS 10(10), - (2018)
6. SHARIPOVA, A; SWAIN, SK; GOTMAN, I; STAROSVETSKY, D; PSAKHIE, SG; UNGER, R; GUTMANAS, EY.  
MECHANICAL, DEGRADATION AND DRUG-RELEASE BEHAVIOR OF NANO-GRAINED FE-AG COMPOSITES FOR BIOMEDICAL APPLICATIONS  
JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS 86, 240-249 (2018)
7. LERNER, MI; MIKHAYLOV, G; TSUKANOV, AA; LOZHKOMOEV, AS; GUTMANAS, E; GOTMAN, I; BRATOV, A; TURK, V; TURK, B; PSAKHIE, SG; VASILJEVA, O.  
CRUMPLED ALUMINUM HYDROXIDE NANOSTRUCTURES AS A MICROENVIRONMENT DYSREGULATION AGENT FOR CANCER TREATMENT  
NANO LETTERS 18(9), 5401-5410 (2018)
8. LERNER, MI; PSAKHIE, SG; LOZHKOMOEV, AS; SHARIPOVA, AF; PERVIKOV, AV; GOTMAN, I; GUTMANAS, EY.  
FE-CU NANOCOMPOSITES BY HIGH PRESSURE CONSOLIDATION OF POWDERS PREPARED BY ELECTRIC EXPLOSION OF WIRES  
ADVANCED ENGINEERING MATERIALS 20(8), - (2018)
9. KAZANTSEV, SO; LOZHKOMOEV, AS; GLAZKOVA, EA; GOTMAN, I; GUTMANAS, EY; LERNER, MI; PSAKHIE, SG.  
PREPARATION OF ALUMINUM HYDROXIDE AND OXIDE NANOSTRUCTURES WITH CONTROLLABLE MORPHOLOGY BY WET OXIDATION OF ALN/A1 NANOPARTICLES  
MATERIALS RESEARCH BULLETIN 104, 97-103 (2018)
10. SHILKO, EV; ASTAFUROV, SV; GRIGORIEV, AS; SMOLIN, AY; PSAKHIE, SG.  
THE FUNDAMENTAL REGULARITIES OF THE EVOLUTION OF ELASTIC VORTICES GENERATED IN THE SURFACE LAYERS OF SOLIDS UNDER TANGENTIAL CONTACT LOADING  
LUBRICANTS 6(2), - (2018)
11. RUZHICH, VV; PSAKHIE, SG; CHERNYKH, EN; SHILKO, EV; LEVINA, EA; DIMAKI, AV.  
BAIKAL ICE COVER AS A REPRESENTATIVE BLOCK MEDIUM FOR RESEARCH IN LITHOSPHERIC GEODYNAMICS  
PHYSICAL MESOMECHANICS 21(3), 223-233 (2018)
12. DIMAKI, A; SHILKO, E; PSAKHIE, S; POPOV, V.  
SIMULATION OF FRACTURE USING A MESH-DEPENDENT FRACTURE CRITERION IN THE DISCRETE ELEMENT METHOD  
FACTA UNIVERSITATIS-SERIES MECHANICAL ENGINEERING 16(1), 41-50 (2018)
13. EREMINA, GM; SMOLIN, AY; PSAKHIE, SG.  
MECHANISMS OF DEFORMATION AND FRACTURE OF THIN COATINGS ON DIFFERENT SUBSTRATES IN INSTRUMENTED INDENTATION  
RUSSIAN PHYSICS JOURNAL 60(12), 2169-2176 (2018)
14. PSAKHIE, SG.  
FOREWORD TO THE THEMATIC ISSUE ADHESION AND FRICTION: SIMULATION, EXPERIMENT, APPLICATIONS  
FACTA UNIVERSITATIS-SERIES MECHANICAL ENGINEERING 16(1), I-II (2018)
15. SHILKO, EV; DIMAKI, AV; PSAKHIE, SG.  
STRENGTH OF SHEAR BANDS IN FLUID-SATURATED ROCKS: A NONLINEAR EFFECT OF COMPETITION BETWEEN DILATION AND FLUID FLOW  
SCIENTIFIC REPORTS 8, - (2018)
16. GRANIN, NG; RADZIMINOVICH, NA; DE BATIST, M; MAKAROV, MM; CHECHELNITCKY, VV; BLINOV, VV; ASLAMOV, IA; GNATOVSKY, RY; POORT, J; PSAKHIE, SG.  
LAKE BAIKAL'S RESPONSE TO REMOTE EARTHQUAKES: LAKE-LEVEL FLUCTUATIONS AND NEAR-BOTTOM WATER LAYER TEMPERATURE CHANGE  
MARINE AND PETROLEUM GEOLOGY 89, 604-614 (2018)

17. SERGEEV, V; PSAKHIE, S; CHUBIK, P; CHERNIAVSKY, A; SOLOVIEV, V; SOLNTSEV, V; KHRISTENKO, Y.  
MAGNETRON SPUTTERING OF SI-AL-N NANOCOMPOSITE COATINGS ON QUARTZ FOR PROTECTION AGAINST IMPACTS OF HIGH SPEED MICROPARTICLES  
VACUUM 143, 454-457 (2017)
18. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; PSAKHIE, SG.  
PRIMARY ION-IRRADIATION DAMAGE OF BCC-IRON SURFACES  
RUSSIAN PHYSICS JOURNAL 60(1), 170-174 (2017)
19. LOZHKOMOEV, AS; LERNER, MI; TSUKANOV, AA; KAZANTSEV, SO; BAKINA, OV; PSAKHIE, SG.  
ON THE POSSIBILITY OF SOFT MATTER NANOSTRUCTURE FORMATION BASED ON MESOPOROUS ALUMINUM HYDROXIDE.  
PROSPECTS FOR BIOMEDICAL APPLICATIONS  
PHYSICAL MESOMECHANICS 20(2), 134-141 (2017)
20. TSUKANOV, AA; PSAKHIE, SG.  
FROM THE SOFT MATTER-HARD MATTER INTERFACE TO BIO-SELF-ORGANIZATION AND HYBRID SYSTEMS  
PHYSICAL MESOMECHANICS 20(1), 43-54 (2017)
21. PSAKH'E, SG; ZOL'NIKOV, KP; KORCHUGANOV, AV; KRYZHEVICH, DS; GRINYAEV, YV.  
INFLUENCE OF THE SIZE AND WALL CURVATURE OF NANOPORES ON THE GAS DISTRIBUTION PATTERN IN THEM  
JOURNAL OF APPLIED MECHANICS AND TECHNICAL PHYSICS 58(1), 31-35 (2017)
22. DIMAKI, AV; SHILKO, EV; PSAKHIE, SG.  
A COUPLED DISCRETE-ELEMENT MODEL OF FLUID-SATURATED ROCK AND THE RESULTS OF STUDYING OF THE IMPACT OF A FLUID ON THE SHEAR STRENGTH OF A ROCK UNDER COMBINED COMPRESSION AND SHEAR  
COUPLED PROBLEMS IN SCIENCE AND ENGINEERING VII (COUPLED PROBLEMS 2017) , 1193-1202 (2017)
23. GRIGORIEV, AS; SHILKO, EV; SKRIPNYAK, VA; PSAKHIE, SG.  
AN APPROACH TO DETERMINING THE PARAMETERS OF KINETIC STRENGTH THEORY BASED DYNAMIC MODEL OF BRITTLE SOLIDS MECHANICAL BEHAVIOR  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
24. KONOVALENKO, IS; SHILKO, EV; OVCHARENKO, VE; PSAKHIE, SG.  
COMPUTER-AIDED STUDY OF KEY FACTORS DETERMINING HIGH MECHANICAL PROPERTIES OF NANOSTRUCTURED SURFACE LAYERS IN METAL-CERAMIC COMPOSITES  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
25. RUZHICH, VV; PSAKHIE, SG; LEVINA, EA; SHILKO, EV; GRIGORIEV, AS.  
USE OF CONTROLLED DYNAMIC IMPACTS ON HIERARCHICALLY STRUCTURED SEISMICALLY HAZARDOUS FAULTS FOR SEISMICALLY SAFE RELAXATION OF SHEAR STRESSES  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
26. SHILKO, EV; DIMAKI, AV; PSAKHIE, SG.  
THE INFLUENCE OF THE MUTUAL RELATIONSHIP BETWEEN DILATANCY AND FLUID FLOW ON THE STRENGTH OF LOCALIZED SHEAR BANDS IN PERMEABLE ROCKS  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
27. ASTAFUROV, SV; SHILKO, EV; PSAKHIE, SG.  
THE POSSIBILITIES AND LIMITATIONS OF THE HOMOGENIZED DESCRIPTION OF INELASTIC BEHAVIOR OF BRITTLE POROUS MATERIALS UNDER CONSTRAINED CONDITIONS  
PNRPU MECH BULL 1, 208 (2017)
28. KRYZHEVICH, D.S.; KORCHUGANOV, A.V.; ZOLNIKOV, K.P.; PSAKHIE, S.G..  
ROLE OF LOCALIZED NON-EQUILIBRIUM STATES IN NUCLEATION OF PLASTIC DEFORMATION IN NANOCRYSTALLINE MATERIALS  
SOLID STATE PHENOMENA 258, 21 (2017)
29. SMOLIN, AY; EREMINA, GM; PSAKHIE, SG.  
3D MODELLING OF MATERIAL FLOW IN FRICTION STIR WELDING USING MOVABLE CELLULAR AUTOMATON METHOD  
V INTERNATIONAL CONFERENCE ON PARTICLE-BASED METHODS - FUNDAMENTALS AND APPLICATIONS (PARTICLES 2017) , 420-428 (2017)
30. KONOVALENKO, IS; KONOVALENKO, IS; PSAKHIE, SG.  
MOLECULAR DYNAMICS MODELING OF BONDING TWO MATERIALS BY ATOMIC SCALE FRICTION STIR WELDING  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
31. KONOVALENKO, IS; PSAKHIE, SG.  
MOLECULAR DYNAMICS MODELING OF BONDING TWO MATERIALS BY ATOMIC SCALE FRICTION STIR WELDING AT DIFFERENT PROCESS PARAMETERS  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
32. KRYZHEVICH, DS; ZOLNIKOV, KP; KORCHUGANOV, AV; PSAKHIE, SG.  
STRUCTURE OF BICOMPONENT PARTICLES SYNTHESIZED FROM COLLIDING METAL CLUSTERS  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)

33. TSUKANOV, AA; PSAKHIE, SG.  
NANOPORE WALL-LIQUID INTERACTION UNDER SCOPE OF MOLECULAR DYNAMICS STUDY: REVIEW  
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2017 (AMHS'17) 1909, - (2017)
34. KRZHEVICH, DS; ZOLNIKOV, KP; KORCHUGANOV, AV; PSAKHIE, SG.  
NANOPOWDER SYNTHESIS BASED ON ELECTRIC EXPLOSION TECHNOLOGY  
PROCEEDINGS OF THE XXV CONFERENCE ON HIGH-ENERGY PROCESSES IN CONDENSED MATTER (HEPCM 2017) 1893, - (2017)
35. GUTMANAS, EY; GOTMAN, I; SHARIPOVA, A; PSAKHIE, SG; SWAIN, SK; UNGER, R.  
DRUG LOADED BIODEGRADABLE LOAD-BEARING NANOCOMPOSITES FOR DAMAGED BONE REPAIR  
PHYSICS OF CANCER: INTERDISCIPLINARY PROBLEMS AND CLINICAL APPLICATIONS (PC IPCA) 1882, - (2017)
36. PSAKHIE, SG; TSUKANOV, AA.  
MOLECULAR LEVEL IN SILICO STUDIES FOR ONCOLOGY. DIRECT MODELS REVIEW  
PHYSICS OF CANCER: INTERDISCIPLINARY PROBLEMS AND CLINICAL APPLICATIONS (PC IPCA) 1882, - (2017)
37. TSUKANOV, AA; PSAKHIE, SG.  
TWO-DIMENSIONAL AL HYDROXIDE INTERACTION WITH CANCEROUS CELL MEMBRANE BUILDING UNITS: COMPLEXED FREE ENERGY AND ORIENTATION ANALYSIS  
PHYSICS OF CANCER: INTERDISCIPLINARY PROBLEMS AND CLINICAL APPLICATIONS (PC IPCA) 1882, - (2017)
38. KORCHUGANOV, AV; ZOLNIKOV, KP; KRZHEVICH, DS; CHERNOV, VM; PSAKHIE, SG.  
MD SIMULATION OF PLASTIC DEFORMATION NUCLEATION IN STRESSED CRYSTALLITES UNDER IRRADIATION  
PHYSICS OF ATOMIC NUCLEI 79(7), 1193-1198 (2016)
39. TSUKANOV, A; PSAKHIE, S.  
ADHESION EFFECTS WITHIN THE HARD MATTER SOFT MATTER INTERFACE: MOLECULAR DYNAMICS  
FACTA UNIVERSITATIS-SERIES MECHANICAL ENGINEERING 14(3), 269-280 (2016)
40. LERNER, MI; GLAZKOVA, EA; LOZHKOMOEV, AS; SVAROVSKAYA, NV; BAKINA, OV; PERVIKOV, AV; PSAKHIE, SG.  
SYNTHESIS OF AL NANOPARTICLES AND AL/ALN COMPOSITE NANOPARTICLES BY ELECTRICAL EXPLOSION OF ALUMINUM WIRES IN ARGON AND NITROGEN  
POWDER TECHNOLOGY 295, 307-314 (2016)
41. LOZHKOMOEV, AS; KAZANTSEV, SO; LERNER, MI; PSAKHIE, SG.  
ACID-BASE AND ADSORPTION PROPERTIES OF THE ALOOH 2D NANOSTRUCTURES AS FACTORS FOR REGULATING PARAMETERS OF MODEL BIOLOGICAL SOLUTIONS  
NANOTECHNOLOGIES IN RUSSIA 11(7-8), 506-511 (2016)
42. PSAKHIE, SG; DIMAKI, AV; SHILKO, EV; ASTAFUROV, SV.  
A COUPLED DISCRETE ELEMENT-FINITE DIFFERENCE APPROACH FOR MODELING MECHANICAL RESPONSE OF FLUID-SATURATED POROUS MATERIALS  
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN ENGINEERING 106(8), 623-643 (2016)
43. LOZHKOMOEV, AS; GLAZKOVA, EA; BAKINA, OV; LERNER, MI; GOTMAN, I; GUTMANAS, EY; KAZANTSEV, SO; PSAKHIE, SG.  
SYNTHESIS OF CORE-SHELL ALOOH HOLLOW NANOSPHERES BY REACTING AL NANOPARTICLES WITH WATER  
NANOTECHNOLOGY 27(20), - (2016)
44. SHILKO, EV; GRINYAEV, YV; POPOV, MV; POPOV, VL; PSAKHIE, SG.  
NONLINEAR EFFECT OF ELASTIC VORTEXLIKE MOTION ON THE DYNAMIC STRESS STATE OF SOLIDS  
PHYSICAL REVIEW E 93(5), - (2016)
45. GRIGORIEV, AS; SHILKO, EV; ASTAFUROV, SV; DIMAKI, AV; VYSOTSKY, EM; PSAKHIE, SG.  
EFFECT OF DYNAMIC STRESS STATE PERTURBATION ON IRREVERSIBLE STRAIN ACCUMULATION AT INTERFACES IN BLOCK-STRUCTURED MEDIA  
PHYSICAL MESOMECHANICS 19(2), 136-148 (2016)
46. DMITRIEV, AI; VOLL, LB; PSAKHIE, SG; POPOV, VL.  
UNIVERSAL LIMITING SHAPE OF WORN PROFILE UNDER MULTIPLE-MODE FRETING CONDITIONS: THEORY AND EXPERIMENTAL EVIDENCE  
SCIENTIFIC REPORTS 6, - (2016)
47. TSUKANOV, AA; PSAKHIE, SG.  
ENERGY AND STRUCTURE OF BONDS IN THE INTERACTION OF ORGANIC ANIONS WITH LAYERED DOUBLE HYDROXIDE NANOSHEETS: A MOLECULAR DYNAMICS STUDY  
SCIENTIFIC REPORTS 6, - (2016)
48. LERNER, MI; PERVIKOV, AV; GLAZKOVA, EA; SVAROVSKAYA, NV; LOZHKOMOEV, AS; PSAKHIE, SG.  
STRUCTURES OF BINARY METALLIC NANOPARTICLES PRODUCED BY ELECTRICAL EXPLOSION OF TWO WIRES FROM IMMISCIBLE ELEMENTS  
POWDER TECHNOLOGY 288, 371-378 (2016)
49. GOTMAN, I; PSAKHIE, SG; LOZHKOMOEV, AS; GUTMANAS, EY.  
IRON OXIDE AND GOLD NANOPARTICLES IN CANCER THERAPY  
PHYSICS OF CANCER: INTERDISCIPLINARY PROBLEMS AND CLINICAL APPLICATIONS (PC'16) 1760, - (2016)
50. TSUKANOV, AA; PSAKHIE, SG.  
ADSORPTION OF CHARGED PROTEIN RESIDUES ON AN INORGANIC NANOSHEET: COMPUTER SIMULATION OF LDH INTERACTION WITH ION CHANNEL  
PHYSICS OF CANCER: INTERDISCIPLINARY PROBLEMS AND CLINICAL APPLICATIONS (PC'16) 1760, - (2016)

51. SMOLIN, AY; EREMINA, GM; SHILKO, EV; PSAKHIE, SG.  
ROLE OF VORTEX-LIKE MOTION IN FRACTURE OF COATING-SUBSTRATE SYSTEM UNDER CONTACT LOADING  
21ST EUROPEAN CONFERENCE ON FRACTURE, (ECF21) 2, 1781-1788 (2016)
52. EREMINA, GM; SMOLIN, AY; SHILKO, EV; PSAKHIE, SG.  
STUDY OF THE INFLUENCE OF MORPHOLOGY AND STRENGTH OF INTERPHASE BOUNDARIES ON THE INTEGRAL MECHANICAL PROPERTIES OF NICR-TIC COMPOSITE  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
53. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; PSAKHIE, SG.  
PECULIARITIES OF MOLECULAR HYDROGEN BEHAVIOR IN PALLADIUM NANOPORES OF DIFFERENT MORPHOLOGY  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
54. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHIE, SG.  
FEATURES OF STRUCTURAL CHANGES IN ALUMINUM SPECIMENS WITH VARIOUS CRYSTALLOGRAPHIC ORIENTATION UNDER ION IRRADIATION  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
55. SMOLIN, AY; EREMINA, GM; SHILKO, EV; PSAKHIE, SG.  
ELASTIC VORTEX DISPLACEMENTS AS PRECURSORS OF MECHANICAL STRESS RELAXATION IN HETEROGENEOUS MATERIALS  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
56. ASTAFUROV, SV; SHILKO, EV; GRIGORIEV, AS; OVCHARENKO, VE; PSAKHIE, SG.  
THEORETICAL INVESTIGATION OF INFLUENCE OF PECULIARITIES OF INTERNAL STRUCTURE ON DEFORMATION AND FRACTURE OF METAL-CERAMIC COMPOSITES USING DISCRETE ELEMENT APPROACH  
21ST EUROPEAN CONFERENCE ON FRACTURE, (ECF21) 2, 2214-2221 (2016)
57. GRIGORIEV, AS; SHILKO, EV; PSAKHIE, SG.  
DEVELOPMENT OF DEM FORMALISM TO MODELING THE DYNAMIC RESPONSE OF BRITTLE SOLIDS  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
58. SHILKO, EV; ASTAFUROV, SV; GRIGORIEV, AS; OVEHARENKO, VE; YU, BH; XIONG, TY; PSAKHIE, SG.  
COMPARATIVE ANALYSIS OF DIFFERENT MODELS OF INTERPHASE BOUNDARIES IN METAL-CERAMIC COMPOSITES  
MECHANICS, RESOURCE AND DIAGNOSTICS OF MATERIALS AND STRUCTURES (MRDMS-2016) 1785, - (2016)
59. SHILKO, EV; PSAKHIE, SG; POPOV, VL.  
NUMERICAL ANALYSIS OF THE GEOMETRICAL AND MATERIAL CRITERIA OF ACCELERATION OF SHEAR CRACK TO SUPERSHEAR VELOCITY IN BRITTLE NANOPOROUS SOLIDS  
21ST EUROPEAN CONFERENCE ON FRACTURE, (ECF21) 2, 409-416 (2016)
60. SHILKO, EV; PSAKHIE, SG; POPOV, VL.  
AN INFLUENCE OF NORMAL STRESS AND PORE PRESSURE ON THE CONDITIONS AND DYNAMICS OF SHEAR CRACK PROPAGATION IN BRITTLE SOLIDS  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
61. KORCHUGANOV, A.V.; CHERNOV, V.M.; ZOLNIKOV, K.P.; KRYZHEVICH, D.S.; PSAKHIE, S.G..  
MD SIMULATION OF PRIMARY RADIATION DAMAGE IN METALS WITH INTERNAL STRUCTURE  
INORGANIC MATERIALS: APPLIED RESEARCH 7(5), 648 (2016)
62. LOZHKOMOEV, A.S.; LERNER, M.I.; TSUKANOV, A.A.; KAZANTSEV, S.O.; BAKINA, O.V.; PSAKHIE, S.G..  
ON THE POSSIBILITY OF SOFT MATTER NANOSTRUCTURE FORMATION BASED ON MESOPOROUS ALUMINUM HYDROXIDE.  
BIOMEDICAL APPLICATION PERSPECTIVES  
PHYSICAL MESOMECHANICS 19(2), 24 (2016)
63. DIMAKI, AV; SHILKO, EV; PSAKHIE, SG.  
STRENGTH OF WATER-FILLED PERMEABLE ELASTIC-PLASTIC MEDIUM UNDER SHEAR ACCOMPANIED BY COMPRESSION: A THEORETICAL STUDY  
21ST EUROPEAN CONFERENCE ON FRACTURE, (ECF21) 2, 2606-2613 (2016)
64. ASTAFUROV, SV; SHILKO, EV; DIMAKI, AV; PSAKHIE, SG.  
DETERMINATION OF THE PARAMETERS OF PLASTICITY MODELS OF GEOLOGICAL MEDIA ON THE BASE OF COMPUTER SIMULATION  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
65. ASTAFUROV, SV; SHILKO, EV; PSAKHIE, SG.  
INVESTIGATION OF REGULARITIES OF FORMATION AND PROPAGATION OF ELASTIC VORTICES IN SURFACE LAYERS OF MATERIALS UNDER DYNAMIC CONTACT LOADING  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
66. BOZHKO, IA; RYBALKO, EV; FEDORISCHEVA, MV; SOLNTSEV, VL; CHERNIAVSKY, AG; KALERI, AY; PSAKHIE, SG; SERGEEV, VP.  
PROTECTION FROM HIGH-VELOCITY IMPACT PARTICLES FOR QUARTZ GLASS BY COATINGS ON THE BASIS OF AL-SI-N  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
67. DIMAKI, AV; SHILKO, EV; PSAKHIE, SG.  
THEORETICAL STUDY OF STRENGTH OF ELASTIC-PLASTIC WATER-SATURATED INTERFACE UNDER CONSTRAINED SHEAR  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
68. KOROSTELEV, SY; PSAKHIE, SG; SLYADNIKOV, EE; TURCHANOVSKII, IY.  
SIMULATION OF A NONEQUILIBRIUM PHASE TRANSITION INITIATED BY THE VOLUMETRIC HEAT SOURCE USING A MOLECULAR DYNAMICS METHOD  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)

69. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHIE, SG.  
PLASTIC DEFORMATION NUCLEATION IN ELASTICALLY LOADED CUNI ALLOY DURING NANOINDENTATION  
ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2016 1783, - (2016)
70. LOZHKOMOEV, AS; GLAZKOVA, EA; KAZANTSEV, SO; GORBIKOV, IA; BAKINA, OV; SVAROVSKAYA, NV; MILLER, AA; LERNER, MI;  
PSAKHIE, SG.  
FORMATION OF MICRO/NANOSTRUCTURED ALOOH HOLLOW SPHERES FROM ALUMINUM NANOPARTICLES  
NANOTECHNOLOGIES IN RUSSIA 10(11-12), 858-864 (2015)
71. POPOV, VL; DIMAKI, A; PSAKHIE, S; POPOV, M.  
ON THE ROLE OF SCALES IN CONTACT MECHANICS AND FRICTION BETWEEN ELASTOMERS AND RANDOMLY ROUGH SELF-AFFINE SURFACES  
SCIENTIFIC REPORTS 5, - (2015)
72. PSAKHIE, SG; SHILKO, EV; POPOV, MV; POPOV, VL.  
KEY ROLE OF ELASTIC VORTICES IN THE INITIATION OF INTERSONIC SHEAR CRACKS  
PHYSICAL REVIEW E 91(6), - (2015)
73. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; CHERNOV, VM; PSAKHIE, SG.  
GENERATION OF SHOCK WAVES IN IRON UNDER IRRADIATION  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS 352, 39-42 (2015)
74. ZOLNIKOV, KP; KORCHUGANOV, AV; KRYZHEVICH, DS; CHERNOV, VM; PSAKHIE, SG.  
STRUCTURAL CHANGES IN ELASTICALLY STRESSED CRYSTALLITES UNDER IRRADIATION  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS 352, 43-46 (2015)
75. EGOROV, AV; POLYAKOV, VV; SALITA, DS; KOLUBAEV, EA; PSAKHIE, SG; CHERNYAVSKII, AG; VOROBEI, IV.  
INSPECTION OF ALUMINUM ALLOYS BY A MULTI-FREQUENCY EDDY CURRENT METHOD  
DEFENCE TECHNOLOGY 11(2), 99-103 (2015)
76. SHILKO, EV; PSAKHIE, SG; SCHMAUDER, S; POPOV, VL; ASTAFUROV, SV; SMOLIN, AY.  
OVERCOMING THE LIMITATIONS OF DISTINCT ELEMENT METHOD FOR MULTISCALE MODELING OF MATERIALS WITH MULTIMODAL INTERNAL STRUCTURE  
COMPUTATIONAL MATERIALS SCIENCE 102, 267-285 (2015)
77. BAKINA, OV; GLAZKOVA, EA; SVAROVSKAYA, NV; LOZHKOMOEV, AS; LERNER, MI; PSAKHIE, SG.  
THE INFLUENCE OF PRECURSOR DISAGGREGATION DURING SYNTHESIS OF LOW-DIMENSIONAL ALOOH STRUCTURES ON THEIR MORPHOLOGY  
RUSSIAN PHYSICS JOURNAL 57(12), 1669-1675 (2015)
78. POPOV, VL; PSAKHIE, SG; CHERNYAVSKY, AG.  
FOREWORD TO THE THEMATIC ISSUE: TRIBOLOGY IN AEROSPACE APPLICATIONS - DAMPING, WEAR AND STRUCTURAL DYNAMICS IN AEROSPACE SYSTEMS  
FACTA UNIVERSITATIS-SERIES MECHANICAL ENGINEERING 13(1), 1-2 (2015)
79. SMOLIN, AY; SHILKO, EV; ASTAFUROV, SV; KONOVALENKO, IS; BUYAKOVA, SP; PSAKHIE, SG.  
MODELING MECHANICAL BEHAVIORS OF COMPOSITES WITH VARIOUS RATIOS OF MATRIX-INCLUSION PROPERTIES USING MOVABLE CELLULAR AUTOMATON METHOD  
DEFENCE TECHNOLOGY 11(1), 18-34 (2015)
80. SHILKO, EV; PSAKHIE, SG; POPOV, VL.  
PARAMETRIC STUDY OF THE CONDITIONS OF SUPERSHEAR CRACK PROPAGATION IN BRITTLE MATERIALS  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
81. ASTAFUROV, SV; SHILKO, EV; DIMAKI, AV; PSAKHIE, SG.  
DEVELOPMENT OF NUMERICAL MODELS OF INTERFACES FOR MULTISCALE SIMULATION OF HETEROGENEOUS MATERIALS  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
82. ASTAFUROV, SV; SHILKO, EV; KOLUBAEV, EA; PSAKHIE, SG.  
INVESTIGATION OF INFLUENCE OF FRICTION STIR WELDING REGIMES ON THE FEATURES OF MASS TRANSFER AND TEMPERATURE DISTRIBUTION IN FORMING WELDS  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
83. ASTAFUROV, S; SHILKO, E; KOLUBAEV, E; PSAKHIE, S.  
A THEORETICAL STUDY OF THE INFLUENCE OF TECHNOLOGICAL FRICTION STIR WELDING PARAMETERS ON WELD STRUCTURES  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
84. EREMINA, GM; SMOLIN, AY; PSAKHIE, SG.  
PECULIARITIES OF MODELING OF NANOINDENTATION OF COATING-SUBSTRATE SYSTEM  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
85. GOTMAN, I; ZARETZKY, A; PSAKHIE, SG; GUTMANAS, EY.  
EFFECT OF A NOVEL LOAD-BEARING TRABECULAR NITINOL SCAFFOLD ON RABBIT RADIUS BONE REGENERATION

- INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
86. GRIGORIEV, AS; SHILKO, EV; ASTAFUROV, SV; DIMAKI, AV; VYSOTSKY, EM; PSAKHIE, SG.  
ON THE INFLUENCE OF DYNAMIC STRESS VARIATIONS ON STRAIN ACCUMULATION IN FAULT ZONES  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
87. GRINYAEV, YV; CHERTOVA, NV; PSAKHIE, SG.  
ENERGY LEVEL TRANSITIONS OF GAS IN A 2D NANOPORE  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
88. KAZANTSEV, SO; FOMENKO, AN; KOROVIN, MS; GLAZKOVA, EA; LOZHKOMOEV, AS; LERNER, MI; PSAKHIE, SG.  
CYTOTOXICITY OF OXIDATION PRODUCTS OF AL NANOPARTICLES TO NEURO-2A AND L929 CELLS  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
89. KONOVALENKO, IS; SMOLIN, AY; PSAKHIE, SG.  
ON DEPENDENCE OF MECHANICAL PROPERTIES OF BRITTLE MATERIAL ON PARTIAL CONCENTRATIONS OF DIFFERENT SIZED PORES IN ITS STRUCTURE IN A WIDE RANGE OF POROSITY  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
90. KONOVALENKO, IS; KONOVALENKO, IS; DMITRIEV, AI; PSAKHIE, SG; KOLUBAEV, EA.  
INFLUENCE OF VIBRATIONAL TREATMENT ON THERMOMECHANICAL RESPONSE OF MATERIAL UNDER CONDITIONS IDENTICAL TO FRICTION STIR WELDING  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
91. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; PSAKHIE, SG.  
EFFECT OF THE SHAPE AND SIZE OF CARBON NANOPORES ON KINETIC PROPERTIES OF MOLECULAR HYDROGEN  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
92. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; CHERNOV, VM; PSAKHIE, SG.  
MOBILITY OF EDGE DISLOCATIONS IN STRESSED IRON CRYSTALS DURING IRRADIATION  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
93. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHIE, SG.  
PECULIARITIES OF PLASTIC DEFORMATION NUCLEATION IN COPPER UNDER NANOINDENTATION  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
94. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHIE, SG.  
PLASTIC DEFORMATION NUCLEATION IN BCC CRYSTALLITES UNDER NANOINDENTATION  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
95. RUZHICH, VV; PSAKHIE, SG; LEVINA, EA; DIMAKI, AV; ASTAFUROV, SV; SHIKO, EV.  
SIMILARITY IN SEISMOGEOYNAMICS ON DIFFERENT SCALES  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
96. SHARIPOVA, A; PSAKHIE, SG; SWAIN, SK; GUTMANAS, EY; GOTMAN, I.  
HIGH-STRENGTH BIORESORBABLE FE-AG NANOCOMPOSITE SCAFFOLDS: PROCESSING AND PROPERTIES  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
97. SMOLIN, AY; EREMINA, GM; SHILKO, EV; PSAKHIE, SG.  
STUDY OF THE ROLE OF VORTEX DISPLACEMENT IN CONTACT LOADING OF STRENGTHENING COATINGS BASED ON MOVABLE CELLULAR AUTOMATON MODELING  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
98. TSUKANOV, AA; PSAKHIE, SG.  
A MOLECULAR DYNAMIC STUDY OF LAYERED HYDROXIDE INDUCED DEPLETION OF MOBILE ANIONS WITHIN THE EXTRACELLULAR MEDIUM  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
99. ZOLNIKOV, KP; KRYZHEVICH, DS; KORCHUGANOV, AV; PSAKHIE, SG.  
DYNAMICS OF PARTICLE FORMATION BY ELECTRIC SYNCHRONOUS EXPLOSION OF WIRES  
INTERNATIONAL CONFERENCE ON ADVANCED MATERIALS WITH HIERARCHICAL STRUCTURE FOR NEW TECHNOLOGIES AND RELIABLE STRUCTURES 2015 1683, - (2015)
100. OVCHARENKO, VE; PSAKHIE, SG; IVANOV, YF; MOKHOVIKOV, AA; YU, BH; ZHAO, YH; IGNAT'EV, AS.  
EFFECT OF NANOSIZE STRUCTURES ON PHYSICAL CHARACTERISTICS OF HARD METAL SUBSURFACE  
RARE METAL MATERIALS AND ENGINEERING 44(1), 1-6 (2015)

101. NIKONOV, AY; DMITRIEV, AI; KONOVALENKO, IS; KOLUBAEV, EA; ASTAFUROV, SV; PSAKHIE, SG.  
FEATURES OF INTERFACE FORMATION IN CRYSTALLITES UNDER MECHANICALLY ACTIVATED DIFFUSION. A MOLECULAR DYNAMICS STUDY.  
COMPUTATIONAL PLASTICITY XIII: FUNDAMENTALS AND APPLICATIONS , 982-991 (2015)
102. ZOLNIKOV, KP; KRYZHEVICH, DS; KORCHUGANOV, AV; PSAKHIE, SG.  
SIMULATION OF NANOPARTICLE FORMATION UNDER SYNCHRONOUS ELECTRIC PULSE EXPLOSION OF METAL WIRES  
COMPUTATIONAL PLASTICITY XIII: FUNDAMENTALS AND APPLICATIONS , 1003-1010 (2015)
103. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHIE, SG.  
THE ROLE OF THE EXCESS VOLUME AT THE NUCLEATION OF PLASTIC DEFORMATION IN METALS  
COMPUTATIONAL PLASTICITY XIII: FUNDAMENTALS AND APPLICATIONS , 1011-1019 (2015)
104. SMOLIN, AY; EREMINA, GM; PSAKHIE, SG.  
ROLE OF VORTEX-LIKE MOTION IN CONTACT LOADING OF STRENGTHENING COATING. MOVABLE CELLULAR AUTOMATON MODELING  
PARTICLE-BASED METHODS IV-FUNDAMENTALS AND APPLICATIONS , 255-262 (2015)
105. SHILKO, EV; PSAKHIE, SG; POPOV, VL.  
AN IMPORTANT ROLE OF ELASTIC VORTICES IN UNSTEADY PROPAGATION OF LONGITUDINAL SHEAR CRACKS IN BRITTLE MATERIALS  
PARTICLE-BASED METHODS IV-FUNDAMENTALS AND APPLICATIONS , 22-33 (2015)
106. DIMAKI, AV; SHILKO, EV; ASTAFUROV, SV; PSAKHIE, SG.  
A THEORETICAL INVESTIGATION OF A MECHANICAL RESPONSE OF FLUID-SATURATED POROUS MATERIALS BASED ON A COUPLED DISCRETE-CONTINUUM APPROACH  
PARTICLE-BASED METHODS IV-FUNDAMENTALS AND APPLICATIONS , 442-450 (2015)
107. ASTAFUROV, SV; SHILKO, EV; KOLUBAEV, EA; DMITRIEV, AI; NIKONOV, AY; PSAKHIE, SG.  
THEORETICAL INVESTIGATION OF THE DYNAMICS OF FRICTION STIR WELDING PROCESS BY MOVABLE CELLULAR AUTOMATON METHOD  
PARTICLE-BASED METHODS IV-FUNDAMENTALS AND APPLICATIONS , 612-622 (2015)
108. TSUKANOV, A.; PSAKHIE, S..  
A REVIEW OF COMPUTER SIMULATION STUDIES OF CELL MEMBRANE INTERACTION WITH NEUTRAL AND CHARGED NANO-OBJECTS. QUASI-ZERO-DIMENSIONAL NANOPARTICLES, DRUGS AND FULLERENES  
ADV. BIOMATER. DEVICES MED. 2, 44 (2015)
109. KORCHUGANOV, A. V.; ZOL'NIKOV, K. P.; KRYZHEVICH, D. S.; CHERNOV, V. M.; PSAKH'E, S. G..  
SIMULATION OF THE NUCLEATION OF PLASTIC DEFORMATION IN MECHANICALLY LOADED CRYSTALS DURING A RADIATION ACTION  
VANT, SER. TERMOYADERNYI SINTEZ 38(1), 42 (2015)
110. PSAKHIE, SG; SHILKO, EV; GRIGORIEV, AS; ASTAFUROV, SV; DIMAKI, AV; SMOLIN, AY.  
A MATHEMATICAL MODEL OF PARTICLE-PARTICLE INTERACTION FOR DISCRETE ELEMENT BASED MODELING OF DEFORMATION AND FRACTURE OF HETEROGENEOUS ELASTIC-PLASTIC MATERIALS  
ENGINEERING FRACTURE MECHANICS 130, 96-115 (2014)
111. SMOLIN, AY; ROMAN, NV; KONOVALENKO, IS; EREMINA, GM; BUYAKOVA, SP; PSAKHIE, SG.  
3D SIMULATION OF DEPENDENCE OF MECHANICAL PROPERTIES OF POROUS CERAMICS ON POROSITY  
ENGINEERING FRACTURE MECHANICS 130, 53-64 (2014)
112. KUZNETSOV, VP; MAKAROV, AV; PSAKHIE, SG; SAVRAI, RA; MALYGINA, IY; DAVYDOVA, NA.  
TRIBOLOGICAL ASPECTS IN NANOSTRUCTURING BURNISHING OF STRUCTURAL STEELS  
PHYSICAL MESOMECHANICS 17(4), 250-264 (2014)
113. RUZHICH, VV; PSAKHIE, SG; CHERNYKH, EN; SHILKO, EV; LEVINA, EA; PONOMAREVA, EI.  
PHYSICAL MODELING OF SEISMIC SOURCE GENERATION IN FAILURE OF FAULT ASPERITIES  
PHYSICAL MESOMECHANICS 17(4), 274-281 (2014)
114. LI, Q; DIMAKI, A; POPOV, M; PSAKHIE, SG; POPOV, VL.  
KINETICS OF THE COEFFICIENT OF FRICTION OF ELASTOMERS  
SCIENTIFIC REPORTS 4, - (2014)
115. MISHNAEVSKY, L; LEVASHOV, E; VALIEV, RZ; SEGURADO, J; SABIROV, I; ENIKEEV, N; PROKOSHKIN, S; SOLOV'YOV, AV; KOROTITSKIY, A; GUTMANAS, E; GOTMAN, I; RABKIN, E; PSAKH'E, S; DLUHOS, L; SEEFELDT, M; SMOLIN, A.  
NANOSTRUCTURED TITANIUM-BASED MATERIALS FOR MEDICAL IMPLANTS: MODELING AND DEVELOPMENT  
MATERIALS SCIENCE & ENGINEERING R-REPORTS 81, 1-19 (2014)
116. PSAKHIE, SG; MEISNER, SN; LOTKOV, AI; MEISNER, LL; TVERDOKHLEBOVA, AV.  
EFFECT OF SURFACE ALLOYING BY SILICON ON THE CORROSION RESISTANCE AND BIOCOMPATIBILITY OF THE BINARY NITI  
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE 23(7), 2620-2629 (2014)
117. PSAKHIE, SG; ZOLNIKOV, KP; DMITRIEV, AI; SMOLIN, AY; SHILKO, EV.  
DYNAMIC VORTEX DEFECTS IN DEFORMED MATERIAL  
PHYSICAL MESOMECHANICS 17(1), 15-22 (2014)
118. GRINYAEV, YV; PSAKHIE, SG.  
ON GAS PHASE TRANSITIONS IN A 2D NANOPORE  
PHYSICAL MESOMECHANICS 17(1), 58-61 (2014)
119. EREMINA, GM; SMOLIN, AY; SERGEEV, VV; PSAKHIE, SG.  
IDENTIFICATION OF NANOSIZED DEFECTS USING TRIBOSPECTROSCOPY. MODELING BY MOVABLE CELLULAR AUTOMATON METHOD  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 139-142 (2014)
120. GRIGORIEV, AS; SHILKO, EV; SKRIPNYAK, VA; SMOLIN, AY; PSAKHIE, SG; BRAGOV, AM; LOMUNOV, AK; IGUMNOV, LA.  
THE NUMERICAL STUDY OF FRACTURE AND STRENGTH CHARACTERISTICS OF HETEROGENEOUS BRITTLE MATERIALS UNDER



## DYNAMIC LOADING

- INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 175-178 (2014)
121. KONOVALENKO, IS; SMOLIN, AY; KONOVALENKO, IS; PROMAKHOV, VV; PSAKHIE, SG.  
NUMERICAL STUDY OF MECHANICAL BEHAVIOR OF CERAMIC COMPOSITES UNDER COMPRESSION LOADING IN THE FRAMEWORK OF MOVABLE CELLULAR AUTOMATON METHOD  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 283-286 (2014)
122. KONOVALENKO, IS; SMOLIN, AY; KONOVALENKO, IS; PROMAKHOV, VV; PSAKHIE, SG.  
ON THE DEPENDENCE OF EFFECTIVE MECHANICAL PROPERTIES OF CERAMICS ON PARTIAL CONCENTRATIONS OF DIFFERENT SIZE PORES IN ITS STRUCTURE  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 287-290 (2014)
123. SMOLIN, AY; EREMINA, GM; KONOVALENKO, IS; PSAKHIE, SG.  
3D MODELING OF THE MECHANICAL BEHAVIOR OF CERAMICS WITH PORES OF DIFFERENT SIZE  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 591-594 (2014)
124. RUBTSOV, V; TARASOV, S; KOLUBAEV, E; PSAKHIE, S.  
ULTRASONIC PHASE ARRAY AND EDDY CURRENT METHODS FOR DIAGNOSTICS OF FLAWS IN FRICTION STIR WELDS  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 539-542 (2014)
125. KOLUBAEV, E; KOLUBAEV, A; SIZOVA, O; RUBTSOV, V; TOLMACHEV, A; PSAKHIE, S.  
ULTRASONIC IMPACT TREATMENT OF THE WELDED JOINT OF ALUMINUM-MAGNESIUM ALLOY PRODUCED BY FRICTION STIR WELDING  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 271-274 (2014)
126. SERGEEV, VP; PANIN, VE; PSAKHIE, SG; CHERNYAVSKII, AG; SVECHKIN, VP; KHRISTENKO, YF; KALASHNIKOV, MP; VORONOV, AV.  
MAGNETRON DEPOSITION OF METAL-CERAMIC PROTECTIVE COATINGS ON GLASSES OF WINDOWS OF SPACE VEHICLES  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 563-566 (2014)
127. POPOV, VL; PSAKHIE, S; POPOV, M.  
ON THE ROLE OF SCALES IN ELASTOMER FRICTION  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 507-510 (2014)
128. ASTAFUROV, S; SHILKO, E; DIMAKI, A; PSAKHIE, S.  
THEORETICAL INVESTIGATION OF INFLUENCE OF PORE PRESSURE ON MECHANICAL RESPONSE OF GAS-FILLED PERMEABLE MATERIALS  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 15-18 (2014)
129. BAKINA, OV; GLAZKOVA, EA; SVAROVSKAYA, NV; LOZHKOMOEV, AS; DYGAJ, AM; CHURIN, AA; LERNER, MI; PSAKHIE, SG.  
TOXICITY OF THE HYBRID MATERIAL BASED ON LOW-DIMENSIONAL STRUCTURES OF ALUMINUM OXIDE  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 31-34 (2014)
130. BAKINA, OV; GLAZKOVA, EA; SVAROVSKAYA, NV; LOZHKOMOEV, AS; KHOROBRAJA, EG; PSAKHIE, SG.  
SYNTHESIS OF LOW-SIZE FLOWER-LIKE ALOOH STRUCTURES  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 35-38 (2014)
131. DIMAKI, AV; SHILKO, EV; ASTAFUROV, SV; PSAKHIE, SG.  
THE COMPUTER-AIDED SIMULATION OF DEFORMATION AND FRACTURE OF WATER-SATURATED ELASTIC POROUS MATERIAL WITH HYBRID CELLULAR AUTOMATON METHOD  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 115-118 (2014)
132. FOMENKO, AN; TIKHONOVA, IN; BAKINA, OV; GLAZKOVA, EA; SVAROVSKAYA, NV; LOZHKOMOEV, AS; PSAKHIE, SG.  
LOW-DIMENSIONAL PSEUDOBOEHMITE STRUCTURES FOR MICROORGANISM ADSORPTION  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 159-162 (2014)
133. KORCHUGANOV, AV; KRYZHEVICH, DS; ZOLNIKOV, KP; PSAKHIE, SG.  
INFLUENCE OF CRYSTALLOGRAPHIC ORIENTATION ON THE RESPONSE OF COPPER CRYSTALLITES TO NANOINDENTATION  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 295-298 (2014)
134. KORCHUGANOV, AV; ZOLNIKOV, KP; KRYZHEVICH, DS; GRINYAEV, YV; PSAKHIE, SG.  
COMPUTER-AIDED SIMULATION OF GAS ADSORPTION PROCESSES IN NANOPORES  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 299-302 (2014)
135. KRYZHEVICH, DS; ZOLNIKOV, KP; ABDRAHIMOV, AV; LERNER, MI; PSAKHIE, SG.  
FORMATION OF 2D NANOPARTICLES WITH BLOCK STRUCTURE IN SIMULTANEOUS ELECTRIC EXPLOSION OF CONDUCTORS  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 319-322 (2014)
136. LERNER, MI; GLAZKOVA, EA; PSAKHIE, SG; TIKHONOV, VI; TYUTRIN, II.  
INVESTIGATION OF THE HEMOSTATIC ACTION OF LOW-DIMENSIONAL ELECTROPOSITIVE STRUCTURES  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 339-342 (2014)
137. LOZHKOMOEV, AS; GLAZKOVA, EA; SVAROVSKAYA, NV; BAKINA, OV; KHOROBRAJA, EG; TIMOFEEV, SS; DOMASHENKO, VV; PSAKHIE, SG.  
ANTIMICROBIAL ACTIVITY OF NANOSTRUCTURED COMPOSITES PRODUCED IN AL/ZN NANOPARTICLE OXIDATION IN AQUEOUS-ALCOHOLIC SOLUTIONS  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 367-370 (2014)
138. OVCHARENKO, VE; PSAKHIE, SG; IVANOV, YF; IVANOV, KV; BOYANGIN, EN.  
BULK NANOSTRUCTURING INTERMETALLIC COMPOSITE MATERIAL  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 459-462 (2014)
139. SHILKO, EV; PSAKHIE, SG.  
THEORETICAL STUDY OF PECULIARITIES OF UNSTABLE LONGITUDINAL SHEAR CRACK GROWTH IN SUB-RAYLEIGH AND SUPERSHEAR

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140. SIZOVA, O; KOLUBAEV, A; KOLUBAEV, E; ZAIKINA, A; RUBTSOV, V; PSAKHIE, S; CHERNYAVSKY, A; LOPOTA, V.  
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INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 587-590 (2014)
141. TSUKANOV, AA; PSAKHIE, SG.  
A MOLECULAR DYNAMIC STUDY OF CHARGED NANOFILM INTERACTION WITH NEGATIVE LIPID BILAYER  
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142. ZOLNIKOV, KP; ABDRAHITOV, AV; KRYZHEVICH, DS; PSAKHIE, SG.  
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143. ZOLNIKOV, KP; KORCHUGANOV, AV; KRYZHEVICH, DS; PSAKHIE, SG.  
INVESTIGATION OF DEFECT NUCLEATION IN TITANIUM UNDER MECHANICAL LOADING  
INTERNATIONAL CONFERENCE ON PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS 2014 1623, 675-678 (2014)
144. ZOLNIKOV, KP; KRYZHEVICH, DS; ABDRAHITOV, AV; PSAKHYE, SG.  
INTERFACE INFLUENCE ON DISPERSION DYNAMIC OF METAL NANOWIRES UNDER ELECTRIC PULSE LOADING  
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145. ASTAFUROV, S.V.; SHILKO, E.V.; PSAKHIE, S.G..  
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VESTN. PNIPU. MEKH. (2), 76 (2014)
146. KRYZHEVICH, DS; KORCHUGANOV, AV; ZOLNIKOV, KP; PSAKHYE, SG.  
STRUCTURAL RESPONSE OF METAL CRYSTALLITE WITH BCC LATTICE ON ATOMIC LEVEL UNDER NANOINDENTATION  
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147. GRIGORIEV, A; SHILKO, E; SKRIPNYAK, V; SMOLIN, A; PSAKHIE, S.  
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148. ASTAFUROV, SV; SHILKO, EV; OVCHARENKO, VE; DIMAKI, AV; PSAKHIE, SG.  
DEVELOPMENT OF A STRUCTURAL AND RHEOLOGICAL MODEL FOR INVESTIGATION OF PECULIARITIES OF DEFORMATION AND FRACTURE OF METAL-CERAMIC COMPOSITES WITH MULTIMODAL INTERNAL STRUCTURE  
20TH EUROPEAN CONFERENCE ON FRACTURE 3, 568-573 (2014)
149. ASTAFUROV, S.V.; SHIL'KO, E.V.; OVCHARENKO, V.E.; PSAKHYE, S.G..  
INVESTIGATION OF THE MECHANICAL PROPERTIES OF INTERFACES OF CERAMIC- METAL COMPOSITES  
FIZ. MEZOMEKHANIKA 17(3), 53 (2014)
150. DIMAKI, AV; SHILKO, EV; ASTAFUROV, SV; PSAKHIE, SG.  
SIMULATION OF DEFORMATION AND FRACTURE OF FLUID-SATURATED POROUS MEDIA WITH HYBRID CELLULAR AUTOMATON METHOD  
20TH EUROPEAN CONFERENCE ON FRACTURE 3, 985-990 (2014)
151. EREMINA, G. M.; YU, A.; SMOLIN, V. V. SERGEEV; PSAKHIE, S. G.; PANIN, V. E.; ET AL..  
IDENTIFICATION OF NANOSIZED DEFECTS USING TRIBOSPECTROSCOPY. MODELING BY MOVABLE CELLULAR AUTOMATON METHOD, PHYSICAL MESOMECHANICS OF MULTILEVEL SYSTEMS-2014  
PUBLISHER: AMERICAN INSTITUTE OF PHYSICS, MELVILLE, NY 1623, 139 (2014)
152. OVCHARENKO, V. E.; PSAKHYE, S. G.; BOYANGIN, E. N..  
BULK NANOSTRUCTURED NI3AL INTERMETALLIC AND NI3AL-BASE ALLOY  
PUBLISHER: TRANS TECH PUBLICATIONS 682, 210 (2014)
153. SHILKO, EV; PSAKHIE, SG.  
THEORETICAL STUDY OF THE CONDITIONS AND THE MECHANISM OF SHEAR CRACK ACCELERATION TOWARDS THE LONGITUDINAL WAVE VELOCITY  
20TH EUROPEAN CONFERENCE ON FRACTURE 3, 251-256 (2014)
154. SMOLIN, A; EREMINA, G; PSAKHIE, S.  
MODELING FRACTURE OF NANOSTRUCTURED BIOACTIVE COATINGS ON TI-BASED MATERIALS UNDER CONTACT LOADING  
20TH EUROPEAN CONFERENCE ON FRACTURE 3, 621-626 (2014)
155. KONOVALENKO, IS; TOKTOHOEV, CO; KONOVALENKO, IS; SMOLIN, AY; PSAKHIE, SG.  
STUDY OF THE MECHANICAL PROPERTIES OF CERAMIC COMPOSITES WITH DIFFERENT VOLUME OF PLASTIC FILLER  
20TH EUROPEAN CONFERENCE ON FRACTURE 3, 942-947 (2014)
156. LOTKOV, A. I; PSAKHIE, S. G; MEISNER, L. L..  
CORROSION RESISTANCE OF SILICON MODIFIED NITINOL IN ARTIFICIAL PHYSIOLOGICAL SOLUTIONS  
ADVANCED BIOMATERIALS AND DEVICES IN MEDICINE 1(1), 46 (2014)
157. PSAKHIE, S; OVCHARENKO, V; YU, BH; SHILKO, E; ASTAFUROV, S; IVANOV, Y; BYELI, A; MOKHOVIKOV, A.  
INFLUENCE OF FEATURES OF INTERPHASE BOUNDARIES ON MECHANICAL PROPERTIES AND FRACTURE PATTERN IN METAL-CERAMIC COMPOSITES  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 29(11), 1025-1034 (2013)

158. PSAKHIE, SG; SMOLIN, AY; SHILKO, EV; ANIKEEVA, GM; POGOZHEV, YS; PETRZHIC, MI; LEVASHOV, EA.  
MODELING NANOINDENTATION OF TICCAPON COATING ON TI SUBSTRATE USING MOVABLE CELLULAR AUTOMATON METHOD  
COMPUTATIONAL MATERIALS SCIENCE 76, 89-98 (2013)
159. BONDAR, MP; PSAKHIE, SG; DMITRIEV, AI; NIKONOV, AY.  
ON THE CONDITIONS OF STRAIN LOCALIZATION AND MICROSTRUCTURE FRAGMENTATION UNDER HIGH-RATE LOADING  
PHYSICAL MESOMECHANICS 16(3), 191-199 (2013)
160. PSAKH'E, SG.  
THE MULTISCALE APPROACH TO MODELING DEFORMATION AND DESTRUCTION PROCESSES  
HERALD OF THE RUSSIAN ACADEMY OF SCIENCES 83(3), 260-267 (2013)
161. PSAKHIE, SG; LOTKOV, AI; MEISNER, LL; MEISNER, SN; MATVEEVA, VA.  
THE SURFACE ALLOYING EFFECT OF SILICON IN A BINARY NITI-BASE ALLOY ON THE CORROSION RESISTANCE AND BIOCOMPATIBILITY OF THE MATERIAL  
RUSSIAN PHYSICS JOURNAL 55(9), 1063-1073 (2013)
162. ZAVSEK, S; DIMAKI, AV; DMITRIEV, AI; SHILKO, EV; PEZDIC, J; PSAKHIE, SG.  
HYBRID CELLULAR AUTOMATA METHOD. APPLICATION TO RESEARCH ON MECHANICAL RESPONSE OF CONTRAST MEDIA  
PHYSICAL MESOMECHANICS 16(1), 42-51 (2013)
163. DOBRETSOV, NL; RUZHICH, VV; PSAKHIE, SG; CHERNYKH, EN; SHILKO, EV; LEVINA, EA; PONOMAREVA, EI.  
ADVANCE IN EARTHQUAKE PREDICTION BY PHYSICAL SIMULATION ON THE BAIKAL ICE COVER  
PHYSICAL MESOMECHANICS 16(1), 52-61 (2013)
164. DMITRIEV, A.I.; KUZNETSOV, V.P.; SMOLIN, I.YU.; NIKONOV, A.YU.; PSAKHIE, S.G..  
STUDY OF NANO-BUMISHING PROCESS ON THE BASE OF ATOMIC AND MACRO-SCALE MODELING  
CONFERENCE: WTC 2013, 5-TH WORLD TRIBOLOGY CONGRESS LOCATION: TORINO, ITALY, TORINO DATE: SEPTEMBER 8-12, 2013 SPONSOR(S): CENTR. CONGR. INT. , (2013)
165. DMITRIEV, AI; DIMAKI, AV; PSAKHIE, SG.  
APPLICATION OF SYMBIOTIC CELLULAR AUTOMATON METHOD TO DESCRIBE THE CONTRAST MEDIA  
PARTICLE-BASED METHODS III: FUNDAMENTALS AND APPLICATIONS , 614-623 (2013)
166. KONOVALENKO, IG. S.; SMOLIN, A. YU.; PSAKHIE, S. G..  
MULTILEVEL APPROACH TO DESCRIPTION OF DEFORMATION AND FRACTURE OF BRITTLE MEDIA WITH HIERARCHICAL POROUS STRUCTURE ON THE BASIS OF MOVABLE CELLULAR AUTOMATON METHOD  
FRATTURA ED INTEGRITA STRUTTURALE 24, 75 (2013)
167. PSAKHIE, S.; SHILKO, E.; SMOLIN, A.; ET AL..  
DEVELOPMENT OF A FORMALISM OF MOVABLE CELLULAR AUTOMATON METHOD FOR NUMERICAL MODELING OF FRACTURE OF HETEROGENEOUS ELASTIC- PLASTIC MATERIALS  
FRACT. AND STRUCT. INTEGRITY 24, 59 (2013)
168. SMOLIN, A.YU.; ANIKEEVA, G.M.; SHILKO, E.V.; PSAKHIE, S.G..  
SIMULATION OF DEFORMATION OF NANOSTRUCTURAL COATINGS ON THE TITANIUM SUBSTRATE AT NANOINDENTATION  
VEST. TGU MAT. MEKH. 24(4), 111 (2013)
169. PSAKH'E, S.G.; SHIL'KO, E.V.; ASTAFUROV, A.V.; GRIGOR'EV, A.S..  
POSSIBILITY OF ASSESSING THE APPROACH OF ULTIMATE SHEAR STRESSES AT ACTIVE INTERFACES IN BLOCK MEDIA  
PUBLISHER: IDG RAN, MOSCOW , (2013)
170. SHILKO, EV; GRIGORIEV, AS; DIMAKI, AV; ASTAFUROV, SV; PSAKHIE, SG.  
DEVELOPMENT OF A FORMALISM OF DISCRETE ELEMENT METHOD TO STUDY MECHANICAL RESPONSE OF GEOLOGICAL MATERIALS AND MEDIA AT DIFFERENT SCALES  
PARTICLE-BASED METHODS III: FUNDAMENTALS AND APPLICATIONS , 795-806 (2013)
171. PSAKH'E, S.G.; LOTKOV, A.I.; MEISNER, S.N.; MEISNER, L.L.; SERGEEV, V.P.; SUNGATULIN, A.R..  
EFFECT OF SURFACE MODIFICATION BY SILICON ION BEAM ON MICROSTRUCTURE AND CHEMICAL COMPOSITION OF NEAR-SURFACE LAYERS OF TITANIUM NICKELIDE  
INORGANIC MATERIALS: APPLIED RESEARCH 4(5), 457 (2013)
172. ASTAFUROV, SV; SHILKO, EV; DIMAKI, AV; OVCHARENKO, VE; PSAKHIE, SG.  
DEVELOPMENT OF MULTISCALE APPROACH TO MODELING MECHANICAL RESPONSE OF HIGH-STRENGTH INTERMETALLIC ALLOYS ON THE BASIS OF MOVABLE CELLULAR AUTOMATON METHOD  
PARTICLE-BASED METHODS III: FUNDAMENTALS AND APPLICATIONS , 624-629 (2013)
173. DIMAKI, AV; SHILKO, EV; ASTAFUROV, SV; PSAKHIE, SG.  
SIMULATION OF THE MECHANICAL RESPONSE OF FLUID-SATURATED POROUS MEDIUM WITH HYBRID CELLULAR AUTOMATON METHOD  
PARTICLE-BASED METHODS III: FUNDAMENTALS AND APPLICATIONS , 819-827 (2013)
174. KONOVALENKO, IG. S.; SMOLIN, A. YU.; PSAKHIE, S. G..  
MULTISCALE APPROACH TO DESCRIPTION OF DEFORMATION AND FRACTURE OF BRITTLE MEDIA WITH HIERARCHICAL POROUS STRUCTURE ON THE BASIS OF MOVABLE CELLULAR AUTOMATON METHOD  
FRATTURA ED INTEGRITA STRUTTURALE (24), 75 (2013)
175. KONOVALENKO, IGOR SERGEEVICH; SMOLIN, ALEXEY YURIEVICH; KONOVALENKO, IVAN SERGEEVICH; PROMAKHOV, VLADIMIR VASILJEVICH; PSAKHIE, SERGEY GRIGORIEVICH.  
COMPUTER-BASED STUDY OF THE DEPENDENCE OF MECHANICAL PROPERTIES OF BRITTLE POROUS MATERIAL ON THE PARTIAL CONCENTRATION OF PORES OF DIFFERENT SIZE

176. LERNER, M.I.; GLAZKOVA, E.A.; DOMASHENKO, V.V.; TIMOFEEV, S.S.; PERVIKOV, A.V.; PSAKH'E, S.G..  
MULTI-COMPONENT NANOPARTICLES OF METALS AS PRECURSORS OF NOVEL ANTIBACTERIAL MATERIALS  
NANOTECHNICS (2), 23 (2013)
177. PSAKHIE, S. G.; RUZHICH, V. V.; CHERNYKH, E. N.; SHIL-KO, E. V.; LEVINA, E. A.; PONOMAREVA, E. I..  
ICE SHOCK PREDICTION IN LAKE BAIKAL AS PHYSICAL SIMULATION OF EARTH-QUAKE PREDICTION  
PUBLISHER: IEC SB RAS , 68 (2013)
178. PSAKHIE, SG; POPOV, VL.  
MESOSCOPIC NATURE OF FRICTION AND NUMERICAL SIMULATION METHODS IN TRIBOLOGY  
PHYSICAL MESOMECHANICS 15(5-6), 251-253 (2012)
179. PSAKHIE, SG; KRYZHEVICH, DS; ZOLNIKOV, KP.  
LOCAL STRUCTURAL TRANSFORMATIONS IN COPPER CRYSTALLITES UNDER NANOINDENTATION  
TECHNICAL PHYSICS LETTERS 38(7), 634-637 (2012)
180. PSAKHIE, SG; ZOLNIKOV, KP; DMITRIEV, AI; KRYZHEVICH, DS; NIKONOV, AY.  
LOCAL STRUCTURAL TRANSFORMATIONS IN THE FCC LATTICE IN VARIOUS CONTACT INTERACTION. MOLECULAR DYNAMICS STUDY  
PHYSICAL MESOMECHANICS 15(3-4), 147-154 (2012)
181. KONOVALENKO, IS; DMITRIEV, AI; SMOLIN, AY; PSAKHIE, SG.  
ON THE ESTIMATION OF STRENGTH PROPERTIES OF POROUS CERAMIC COATINGS  
PHYSICAL MESOMECHANICS 15(1-2), 88-93 (2012)
182. ASTAFUROV, SV; SHILKO, EV; ANDREEV, AV; PSAKHIE, SG.  
EFFECT OF COMPRESSION NONEQUIAXIALITY ON SHEAR-INDUCED DILATATION IN A BLOCK-STRUCTURED MEDIUM  
PHYSICAL MESOMECHANICS 15(1-2), 80-87 (2012)
183. KUZNETSOV, V.P.; NIKONOV, A.YU.; DMITRIEV, A.I.; PSAKHIE, S.G.; MAKAROV, A.V..  
NANOSTRUCTURING MECHANISMS OF A SURFACE LAYER UNDER PLASTIC DEFORMATION WITH A GLIDING INDENTER. ATOMIC  
SCALE SIMULATION  
FIZ. MEZOMEKH. 15(3), 59 (2012)
184. DIMAKI, A.V.; DMITRIEV, A.I.; ZAVSEK, S.; PSAKHIE, S.G..  
NUMERICAL STUDY OF INFLUENCE OF ADSORBED GAS FILTRATION AND DIFFUSION ON DYNAMIC PHENOMENA IN A COAL SEAM  
CONFERENCE: PROC. 19TH EUR. CONF. ON FRACT. FRACT. MECH. FOR DURABILITY, RELIABILITY AND SAFETY LOCATION: KAZAN,  
RUSSIA DATE: 26-31 AUGUST, 2012 , (2012)
185. PSAKH'E, S.G.; LOTKOV, A.I.; MEISNER, L.L.; MEISNER, S.N.; IL'IN, A.P.; ABRAMOVA, P.V.; KORSHUNOV, A.V.; SERGEEV, V.P.;  
SUNGATULIN, A.R..  
EFFECT OF SILICON ION SURFACE MODIFICATION ON THE CORROSION RESISTANCE OF TITANIUM NICKELIDE IN SYNTHETIC  
BIOLOGICAL MEDIA  
IZV. TOMSK. POLITEKH. UNIV. 321(3), 21 (2012)
186. SEROVA, A.N.; PEHENKO, V.G.; TIKHONOVA, I.N.; GLAZKOVA, E.A.; BAKINA, O.V.; LERNER, M.I.; PSAKHIE, S.G..  
ANTIMICROBIAL ACTIVITY OF THE DRESSING MATERIAL IMPREGNATED WITH COLLOIDAL SILVER  
SIBIRSKIY MEDITSINSKIY SHURNAL 27, 137 (2012)
187. LOTKOV, A.L.; PSAKH'E, S.G.; MEISNER, L.L.; MATVEEVA, V.A.; ARTEM'EVA, L.V.; MEISNER, S.N.; MATVEEV, A.L..  
THE EFFECT OF CHEMICAL COMPOSITION AND ROUGHNESS OF TITANIUM NICKELIDE SURFACE ON PROLIFERATIVE PROPERTIES OF  
MESENCHYMAL STEM CELLS  
INORGANIC MATERIALS: APPLIED RESEARCH 3(2), 135 (2012)
188. KONOVALENKO, IS; KRYZHEVICH, DS; ZOL'NIKOV, KP; PSAKHIE, SG.  
ATOMIC MECHANISMS OF LOCAL STRUCTURAL REARRANGEMENTS IN STRAINED CRYSTALLINE TITANIUM GRAIN  
TECHNICAL PHYSICS LETTERS 37(10), 946-948 (2011)
189. PSAKHIE, SG; SHILKO, EV; SMOLIN, AY; DIMAKI, AV; DMITRIEV, AI; KONOVALENKO, IS; ASTAFUROV, SV; ZAVSHEK, S.  
APPROACH TO SIMULATION OF DEFORMATION AND FRACTURE OF HIERARCHICALLY ORGANIZED HETEROGENEOUS MEDIA,  
INCLUDING CONTRAST MEDIA  
PHYSICAL MESOMECHANICS 14(5-6), 224-248 (2011)
190. MIKHAYLOV, G; MIKAC, U; MAGAEVA, AA; ITIN, VI; NAIDEN, EP; PSAKHIE, I; BABES, L; REINHECKEL, T; PETERS, C; ZEISER, R; BOGYO,  
M; TURK, V; PSAKHIE, SG; TURK, B; VASILJEVA, O.  
FERRI-LIPOSOMES AS AN MRI-VISIBLE DRUG-DELIVERY SYSTEM FOR TARGETING TUMOURS AND THEIR MICROENVIRONMENT  
NATURE NANOTECHNOLOGY 6(9), 594-602 (2011)
191. DMITRIEV, AI; NIKONOV, AY; PSAKHIE, SG.  
ATOMISTIC MECHANISM OF GRAIN BOUNDARY SLIDING WITH THE EXAMPLE OF A LARGE-ANGLE BOUNDARY  $\Sigma=5$ . MOLECULAR  
DYNAMICS CALCULATION  
PHYSICAL MESOMECHANICS 14(1-2), 24-31 (2011)
192. PSAKHIE, SG; SHILKO, EV; ASTAFUROV, SV; DIMAKI, AV; GRANIN, NG; RUZHICH, VV; GNATOVSKY, RY.  
INTERNAL STRESS IN BLOCK MEDIA AS A FACTOR RESPONSIBLE FOR INTERFACE STRAIN ACTIVITY. ESTIMATION OF EXCESS TECTONIC  
STRESS  
PHYSICAL MESOMECHANICS 14(1-2), 32-39 (2011)
193. PSAKHIE, S. G.; HORIE, Y.; SHILKO, E. V.; ET AL..  
DEVELOPMENT OF DISCRETE ELEMENT APPROACH TO MODELING HETEROGENEOUS ELASTIC-PLASTIC MATERIALS AND MEDIA  
INT. J. TERRASPACE SCIENCE AND ENGINEERING 3(1), 93 (2011)

194. ASTAFUROV, SV; SHILKO, EV; ANDREEV, AV; PSAKHIE, SG.  
INVESTIGATION OF DILATANCY IN BLOCK-STRUCTURED GEOLOGICAL MEDIUM ON THE BASE OF MOVABLE CELLULAR AUTOMATON METHOD  
PARTICLE-BASED METHODS II: FUNDAMENTALS AND APPLICATIONS , 584-595 (2011)
195. SMOLIN, AY; ROMAN, NV; LOGINOVA, DS; KONOVALENKO, IS; PSAKHIE, SG.  
INFLUENCE OF POROSITY PERCOLATION ON MECHANICAL PROPERTIES OF CERAMIC MATERIALS. 3D SIMULATION USING MOVABLE CELLULAR AUTOMATA  
PARTICLE-BASED METHODS II: FUNDAMENTALS AND APPLICATIONS , 249-255 (2011)
196. SHILKO, EV; SMOLIN, AY; ASTAFUROV, SV; PSAKHIE, SG.  
DEVELOPMENT OF DISCRETE ELEMENT APPROACH TO MODELING HETEROGENEOUS ELASTIC-PLASTIC MATERIALS AND MEDIA  
PARTICLE-BASED METHODS II: FUNDAMENTALS AND APPLICATIONS , 403-414 (2011)
197. LERNER, M.I.; BAKINA, O.V.; GLAZKOVA, E.A.; LOZHKOMOEV, A.S.; SVAROVSKAYA, N.V.; PSAKH'E, S.G..  
ADSORPTION OF MICROORGANISMS AND BACTERIAL ENDOTOXIN ON MODIFIED POLYMER FIBERS  
INORGANIC MATERIALS: APPLIED RESEARCH 2(5), 488 (2011)
198. DYGAJ, AM; OGORODOVA, LM; PSAKHIE, SG; BELSKY, YP; BELSKA, NV; DANILETS, MG; ET AL..  
A STUDY OF THE CYTOTOXICITY OF A NEW NONWOVEN POLYMERIC FIBROUS BANDAGING MATERIAL IN-VITRO  
J BIOMATER NANO-BIOTECHNOL 2, 234 (2011)
199. KONOVALENKO, I. S.; ZOLNIKOV, K. P.; PSAKHIE, S. G..  
MOLECULAR DYNAMICS INVESTIGATION OF DEFORMATION RESPONSE OF THIN-FILM METALLIC NANOSTRUCTURES UNDER HEATING  
NANOSYSTEMS-PHYSICS CHEMISTRY MATHEMATICS 2(2), 76 (2011)
200. SMOLIN, A. YU; ROMAN, N. V.; ZOLNIKOV, K. P.; PSAKHIE, S. G.; KEDRINSKII, V. K..  
SIMULATION OF STRUCTURAL TRANSFORMATIONS IN COPPER NANOPARTICLES UNDER COLLISION  
NANOSYSTEMS-PHYSICS CHEMISTRY MATHEMATICS 2(2), 98 (2011)
201. ABDRAHIMOV, AV; ZOL'NIKOV, KP; PSAKHIE, SG.  
EFFECT OF THE ANISOTROPY OF CONFINING FIELD ON THE STRUCTURE OF DUSTY PLASMA CLUSTERS  
TECHNICAL PHYSICS LETTERS 36(10), 910-913 (2010)
202. PSAKHIE, SG; ZOLNIKOV, KP; ABDRAHIMOV, AV.  
ON THE FORMATION OF STRUCTURAL STATES IN DUSTY PLASMAS  
PHYSICAL MESOMECHANICS 13(5-6), 275-282 (2010)
203. DMITRIEV, AI; NIKONOV, AY; PSAKHIE, SG.  
MOLECULAR DYNAMICS SIMULATION OF COPPER BICRYSTAL RESPONSE TO SHEAR LOADING  
TECHNICAL PHYSICS LETTERS 36(9), 786-788 (2010)
204. SVAROVSKAYA, NV; BAKINA, OV; GLAZKOVA, EA; LERNER, MI; PSAKH'E, SG.  
THE FORMATION OF NANOSHEETS OF ALUMINUM OXYHYDROXIDES FROM ELECTROEXPOSIVE NANOPOWDERS  
RUSSIAN JOURNAL OF PHYSICAL CHEMISTRY A 84(9), 1566-1569 (2010)
205. DOBRYNIN, SA; KOLUBAEV, EA; SMOLIN, AY; DMITRIEV, AI; PSAKHIE, SG.  
TIME-FREQUENCY ANALYSIS OF ACOUSTIC SIGNALS IN THE AUDIO-FREQUENCY RANGE GENERATED DURING HADFIELD'S STEEL FRICTION  
TECHNICAL PHYSICS LETTERS 36(7), 606-609 (2010)
206. ASTAFUROV, SV; SHILKO, EV; PSAKHIE, SG.  
INFLUENCE OF CONSTRAINED CONDITIONS ON THE CHARACTER OF DEFORMATION AND FRACTURE OF BLOCK MEDIA UNDER SHEAR LOADS  
PHYSICAL MESOMECHANICS 13(3-4), 164-172 (2010)
207. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS; ABDRAHIMOV, AV; LERNER, MI.  
STAGE CHARACTER OF CLUSTER FORMATION IN METAL SPECIMENS IN ELECTROTHERMAL PULSE DISPERSION  
PHYSICAL MESOMECHANICS 13(3-4), 184-188 (2010)
208. HUANG, DW; WANG, M; PSAKHIE, SG.  
SIMULATION OF THE VIBRATION RESPONSE OF A COLUMN UNDER THE POST-BUCKLING BEHAVIOR BY PARTICLE MECHANICS METHOD  
COMPUTATIONAL MATERIALS SCIENCE 48(2), 310-316 (2010)
209. PSAKH'E, S. G.; SHIL'KO, E. V.; ASTAFUROV, S. V.; GRIGOR'EV, A. S.; ADUSHKIN, V. V.; KOCHARYAN, G. G..  
POSSIBLE ESTIMATION OF PROXIMITY OF SHEAR STRESSES TO CRITICAL VALUE AT ACTIVE DIVIDES IN BLOCK MEDIA  
PUBLISHER: GEOS, MOSCOW , 230 (2010)
210. SHILKO, EV; ASTAFUROV, SV; RUZHICH, VV; PSAKHIE, SG.  
ON THE FEASIBILITY OF SHEAR STRESS ESTIMATION AT INTERFACES OF BLOCK-STRUCTURED MEDIUM  
PHYSICAL MESOMECHANICS 13(1-2), 21-27 (2010)
211. KONOVALENKO, IS; SMOLIN, AY; PSAKHIE, SG.  
MULTILEVEL SIMULATION OF DEFORMATION AND FRACTURE OF BRITTLE POROUS MATERIALS IN THE METHOD OF MOVABLE CELLULAR AUTOMATA  
PHYSICAL MESOMECHANICS 13(1-2), 47-53 (2010)
212. LERNER, M.I.; SVAROVSKAYA, N.V.; PSAKHIE, S.G.; BAKINA, O.V..  
PRODUCTION TECHNOLOGY, CHARACTERISTICS, AND SOME APPLICATIONS OF ELECTRIC-EXPLOSION NANOPOWDERS OF METALS  
NANOTECHNOL. RUSS. 4(11-12), 741 (2010)

213. SERGEEV, V.V.; SMOLIN, A.YU.; DOBRYNIN, S.A.; KOROSTELEV, S.YU.; PSAKHIE, S.G..  
POSSIBILITIES OF DETECTION OF NANOSCOPIC PORES USING THE ANALYSIS OF FRICTION FORCES  
VEST. TGU. MAT. MEKH. 12(4), 116 (2010)
214. KRYZHEVICH, DS; ZOLNIKOV, KP; PSAKHIE, SG.  
SIMULATION OF PLASTIC DEFORMATION INITIATION IN CRYSTAL MATERIALS UNDER DYNAMIC LOADING  
FATIGUE 2010 2(1), 1579-1587 (2010)
215. ABDRAHITOV, AV; KRYZHEVICH, DS; ZOLNIKOV, KP; PSAKHIE, SG.  
SIMULATION OF NANOPARTICLES WITH BLOCK STRUCTURE FORMATION BY ELECTRIC DISPERSION OF METAL WIRE  
FATIGUE 2010 2(1), 1589-1593 (2010)
216. SMOLIN, AY; DOBRYNIN, SA; PSAKHIE, SG.  
ON THE POSSIBILITY OF USING ACOUSTIC SPECTRA TO STUDY DEFORMATION PROCESSES IN SURFACE LAYERS DURING FRICTION  
TECHNICAL PHYSICS LETTERS 35(12), 1124-1128 (2009)
217. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS; ZHELEZNYAKOV, AV; CHERNOV, VM.  
EVOLUTION OF ATOMIC COLLISION CASCADES IN VANADIUM CRYSTAL WITH INTERNAL STRUCTURE  
CRYSTALLOGRAPHY REPORTS 54(6), 1002-1010 (2009)
218. PSAKHIE, SG; POPOV, VL; SHILKO, EV; SMOLIN, AY; DMITRIEV, AI.  
SPECTRAL ANALYSIS OF THE BEHAVIOR AND PROPERTIES OF SOLID SURFACE LAYERS. NANOTRIBOSPECTROSCOPY  
PHYSICAL MESOMECHANICS 12(5-6), 221-234 (2009)
219. PSAKHIE, SG; RUDENSKII, GE; ZHELEZNYAKOV, AV; KONOVALENKO, IS; ZOLNIKOV, KP.  
A MOLECULAR-DYNAMICS STUDY OF OSCILLATIONS OF UNCLOSED CRYSTAL NANOSTRUCTURES BASED ON BILAYER METAL FILMS  
RUSSIAN PHYSICS JOURNAL 52(7), 674-678 (2009)
220. PSAKHIE, SG; ZHELEZNYAKOV, AV; KONOVALENKO, IS; RUDENSKII, GE; ZOLNIKOV, KP.  
INFLUENCE OF STRUCTURE DEFECTS ON BEHAVIOR OF UNCLOSED CRYSTAL NANOSTRUCTURES  
RUSSIAN PHYSICS JOURNAL 52(6), 602-606 (2009)
221. PSAKHIE, SG; ZOLNIKOV, KP; DMITRIEV, AI; KONOVALENKO, IS.  
KINEMATIC PROPERTIES OF NANOSTRUCTURES BASED ON BILAYER NANOCRYSTALLINE FILMS  
PHYSICAL MESOMECHANICS 12(3-4), 112-116 (2009)
222. SMOLIN, AY; ROMAN, NV; DOBRYNIN, SA; PSAKHIE, SG.  
ON ROTATION IN THE MOVABLE CELLULAR AUTOMATON METHOD  
PHYSICAL MESOMECHANICS 12(3-4), 124-129 (2009)
223. DMITRIEV, AI; SMOLIN, AY; SCHARGOTT, M; POPOV, VL; PSAKHIE, SG.  
A MULTILEVEL COMPUTER SIMULATION OF FRICTION AND WEAR BY NUMERICAL METHODS OF DISCRETE MECHANICS AND A  
PHENOMENOLOGICAL THEORY (VOL 12, PG 11, 2009)  
PHYSICAL MESOMECHANICS 12(3-4), 199-199 (2009)
224. KONOVALENKO, IS; SMOLIN, AY; KOROSTELEV, SY; PSAKH'E, SG.  
DEPENDENCE OF THE MACROSCOPIC ELASTIC PROPERTIES OF POROUS MEDIA ON THE PARAMETERS OF A STOCHASTIC SPATIAL  
PORE DISTRIBUTION  
TECHNICAL PHYSICS 54(5), 758-761 (2009)
225. PSAKHIE, SG; SHILKO, EV; POPOV, VL; STARCEVIC, J; THATEN, J; ASTAFUROV, SV; DIMAKI, AV.  
ASSESSMENT OF NANOSTRUCTURED CERAMIC COATING DAMAGE. NANOTRIBOSPECTROSCOPY  
RUSSIAN PHYSICS JOURNAL 52(4), 380-385 (2009)
226. RUZHICH, VV; PSAKHIE, SG; CHERNYKH, EN; BORNYAKOV, SA; GRANIN, NG.  
DEFORMATION AND SEISMIC EFFECTS IN THE ICE COVER OF LAKE BAIKAL  
RUSSIAN GEOLOGY AND GEOPHYSICS 50(3), 214-221 (2009)
227. DIMAKI, AV; PSAKH'E, SG.  
SPACED MONITORING SYSTEM FOR DISPLACEMENTS IN BLOCK MEDIA, DESIGNED BASED ON SDVIG-4MR COMPLEX  
JOURNAL OF MINING SCIENCE 45(2), 194-200 (2009)
228. PSAKHIE, SG; RUDENSKII, GE; ZHELEZNYAKOV, AV; MEN'SHCHIKOVA, TV; DMITRIEV, AI; ZOL'NIKOV, KP.  
SIZE EFFECT ON THE KINEMATIC PARAMETERS OF NANOMETER-THICK BILAYER FILMS  
TECHNICAL PHYSICS LETTERS 35(3), 217-219 (2009)
229. PSAKHIE, SG; DOBRETISOV, NL; SHILKO, EV; ASTAFUROV, SV; DIMAKI, AV; RUZHICH, VV.  
MODEL STUDY OF THE FORMATION OF DEFORMATION-INDUCED STRUCTURES OF SUBDUCTION TYPE IN BLOCK-STRUCTURED  
MEDIA. ICE COVER OF LAKE BAIKAL AS A MODEL MEDIUM  
TECTONOPHYSICS 465(1-4), 204-211 (2009)
230. KUL'KOV, SN; BUYAKOVA, SP; KONOVALENKO, IS; SMOLIN, AY; PSAKHIE, SG.  
FEATURES OF THE FRAGMENTATION OF MECHANICALLY PROCESSED ZIRCONIA PARTICLES  
TECHNICAL PHYSICS LETTERS 35(2), 130-132 (2009)
231. PSAKHIE, SG; ZOL'NIKOV, KP; ABDRAHITOV, AV.  
STUDYING THE RESPONSE OF A COULOMB BALL OF CHARGED DUST PARTICLES TO EXTERNAL PULSED LOADS  
TECHNICAL PHYSICS LETTERS 35(2), 120-122 (2009)
232. DMITRIEV, AI; SMOLIN, AY; POPOV, VL; PSAKHIE, SG.  
A MULTILEVEL COMPUTER SIMULATION OF FRICTION AND WEAR BY NUMERICAL METHODS OF DISCRETE MECHANICS AND A  
PHENOMENOLOGICAL THEORY  
PHYSICAL MESOMECHANICS 12(1-2), 11-19 (2009)

233. PSAKHIE, S. G.; ZOLNIKOV, K. P.; KRYZHEVICH, D. S.; ZHELEZNYAKOV, A. V.; CHERNOV, V. M..  
ATOMIC COLLISION CASCADES IN VANADIUM CRYSTALLITES WITH GRAIN BOUNDARIES  
PHYSICAL MESOMECHANICS 12(1-2), 20 (2009)
234. KNYAZEVA, AG; PSAKHIE, SG.  
THERMODYNAMICS OF THE ACTIVATED STATE OF MATERIALS  
JOURNAL OF APPLIED MECHANICS AND TECHNICAL PHYSICS 50(1), 118-126 (2009)
235. SHILKO, E.V.; SMOLIN, A.YU.; ASTAFUROV, S.V.; PSAKHIE, S.G..  
DEVELOPMENT OF MOVABLE CELLULAR AUTOMATON METHOD FOR SIMULATION OF DEFORMATION AND FRACTURE OF  
HETEROGENEOUS ELASTOPLASTIC MATERIALS AND MEDIA  
PUBLISHER: ARTES GRAFICAS, BARCELONA , 349 (2009)
236. SMOLIN, A. YU.; DOBRYNIN, S.A.; PSAKHIE, S.G..  
THE FACTORS GOVERNING ELASTIC WAVE GENERATION IN FRICTION. SIMULATION ON THE BASIS OF A DISCRETE-CONTINUAL  
APPROACH  
IZV. TPU 314(2), 76 (2009)
237. PSAKHE, S. G.; ZINCHENKO, V. I.  
TOMSK SCIENTIFIC AND EDUCATIONAL COMPLEX AS THE FOUNDATIONS AND INNOVATIVE DEVELOPMENT OF THE REGION  
NAUKA V SIBIRI-SCIENCE IN SIBERIA. 1-2, 4 (2009)
238. SMOLIN, A. Y.; DOBRYNIN, S. A.; PSAKHIE, S. G..  
TIME-FREQUENCY ANALYSIS OF ELASTIC WAVES IN THE MODEL FRICTION COUPLE  
VESTNIK TOMSKOGO GOSUDARSTVENNOGO UNIVERSITETA-MATEMATIKA I MEKHANIKA-TOMSK STATE UNIVERSITY JOURNAL OF  
MATHEMATICS AND MECHANICS (5), 96 (2009)
239. SCHARGOTT, M; POPOV, VL; DMITRIEV, AI; PSAKHIE, SG.  
DEVELOPMENT OF SURFACE TOPOGRAPHY FOR THE RAIL-WHEEL CONTACT  
WEAR 265(9-10), 1542-1548 (2008)
240. GRINYAEV, YV; PSAKHIE, SG; CHERTOVA, NV.  
PHASE SPACE OF SOLIDS UNDER DEFORMATION  
PHYSICAL MESOMECHANICS 11(5-6), 228-232 (2008)
241. FILIPPOV, AE; POPOV, VL; PSAKHIE, SG.  
CORRELATED IMPACTS OPTIMIZING THE TRANSFORMATION OF BLOCK MEDIUM DYNAMICS INTO CREEP REGIME  
TECHNICAL PHYSICS LETTERS 34(8), 689-692 (2008)
242. PSAKHIE, SG; ZOLNIKOV, KP.  
STRUCTURE OF BINARY DUST COULOMB BALLS IN CONFINING FIELDS OF DIFFERENT ORIGIN  
PHYSICAL MESOMECHANICS 11(3-4), 144-148 (2008)
243. PSAKHIE, SG; ZOLNIKOV, KP; SKORENTSEV, LF; KRYZHEVICH, DS; ABDRAHITOV, AV.  
STRUCTURAL FEATURES OF BICOMPONENT DUST COULOMB BALLS FORMED BY THE SUPERPOSITION OF FIELDS OF DIFFERENT  
ORIGIN IN PLASMA  
PHYSICS OF PLASMAS 15(5), - (2008)
244. PSAKHIE, SG; ZOL'NIKOV, KP; SKORENTSEV, LF; KRYZHEVICH, DS; ABDRAHITOV, AV.  
STRUCTURAL FEATURES OF TWO-COMPONENT DUSTY PLASMA COULOMB BALLS  
TECHNICAL PHYSICS LETTERS 34(4), 319-322 (2008)
245. GRABOVETSKAYA, GP; MISHIN, IP; RATOCHKA, IV; PSAKHIE, SG; KOLOBOV, YR.  
GRAIN-BOUNDARY DIFFUSION OF NICKEL IN SUBMICROCRYSTALLINE MOLYBDENUM PROCESSED BY SEVERE PLASTIC DEFORMATION  
TECHNICAL PHYSICS LETTERS 34(2), 136-138 (2008)
246. DMITRIEV, AI; SMOLIN, AY; PSAKHIE, SG; OSTERLE, W; KLOSS, H; POPOV, VL.  
COMPUTER MODELING OF LOCAL TRIBOLOGICAL CONTACTS BY THE EXAMPLE OF THE AUTOMOTIVE BRAKE FRICTION PAIR  
PHYSICAL MESOMECHANICS 11(1-2), 73-84 (2008)
247. ASTAFUROV, SV; SHILKO, EV; RUZHICH, VV; PSAKHIE, SG.  
EFFECT OF LOCAL STRESS ON THE INTERFACE RESPONSE TO DYNAMIC LOADING IN FAULTED CRUST  
RUSSIAN GEOLOGY AND GEOPHYSICS 49(1), 52-58 (2008)
248. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS.  
CALCULATION OF DIFFUSION PROPERTIES OF GRAIN BOUNDARIES IN NANOCRYSTALLINE COPPER  
PHYSICAL MESOMECHANICS 11(1-2), 25-28 (2008)
249. LOTKOV, A. I.; PSAKHIE, S. G.; SERGEEV, V. P.; LYAKHOV, N. Z.; PSAKHIE, S. G..  
FORMATION OF NONEQUILIBRIUM STATES IN SURFACE LAYERS OF MATERIALS BY ELECTRON-ION PLASMA TECHNOLOGIES  
PUBLISHER: PUBLISHING HOUSE OF SB RAS, NOVOSIBIRSK, RUSSIA , 227 (2008)
250. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS.  
PROTODEFECT AS A BASIS OF MULTILEVEL NANOSCALE PLASTICITY OF CRYSTAL MATERIALS  
ELECTRON MICROSCOPY AND MULTISCALE MODELING, PROCEEDINGS 999, 20-31 (2008)
251. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS.  
MOLECULAR DYNAMIC STUDY OF PROTO-FAULTS GENERATION AS AN ATOMISTIC MECHANISM OF INCIPIENT PLASTICITY DURING  
HIGH-SPEED LOADING IN IDEAL CRYSTAL  
MATERIALS STRUCTURE & MICROMECHANICS OF FRACTURE V 567-568, 57-60 (2008)
252. PSAKHIE, SG; ASTAFUROV, SV; SHIL'KO, EV.  
EFFECT OF ELASTIC CHARACTERISTICS OF THE SURFACE LAYER ON THE DEFORMATION PROPERTIES OF MATERIALS WITH AN

- INTERFACE-CONTROLLABLE STRUCTURE  
TECHNICAL PHYSICS 52(11), 1523-1526 (2007)
253. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS.  
ELEMENTARY ATOMISTIC MECHANISM OF CRYSTAL PLASTICITY  
PHYSICS LETTERS A 367(3), 250-253 (2007)
254. SMOLIN, AY; KONOVALENKO, IS; PSAKHIE, SG.  
IDENTIFICATION OF ELASTIC WAVES GENERATED IN THE CONTACT ZONE OF A FRICTION COUPLE  
TECHNICAL PHYSICS LETTERS 33(7), 600-603 (2007)
255. POPOV, VL; PSAKHIE, SG.  
NUMERICAL SIMULATION METHODS IN TRIBOLOGY  
TRIBOLOGY INTERNATIONAL 40(6), 916-923 (2007)
256. PSAKHIE, SG; RUZHICH, VV; SHILKO, EV; POPOV, VL; ASTAFUROV, SV.  
A NEW WAY TO MANAGE DISPLACEMENTS IN ZONES OF ACTIVE FAULTS  
TRIBOLOGY INTERNATIONAL 40(6), 995-1003 (2007)
257. DOBRETSOV, NL; PSAKHE, SG; RUZHICH, VV; POPOV, VL; SHIL'KO, EV; GRANIN, NG; TIMOFEEV, VY; ASTAFUROV, SV; DIMAKI, AV;  
STARCHEVICH, Y.  
ICE COVER OF LAKE BAIKAL AS A MODEL FOR STUDYING TECTONIC PROCESSES IN THE EARTH'S CRUST  
DOKLADY EARTH SCIENCES 413(2), 155-159 (2007)
258. KONOVALENKO, GS; KNYAZEVA, AG; SMOLIN, AY; KARLOV, AV; PSAKHIE, SG.  
SIMULATION OF MECHANICAL BEHAVIOR OF CALCIUM-PHOSPHATE COATINGS WITH DIFFERENT CALCIUM CONTENT UNDER SHEAR  
LOADING BASED ON THE MOVABLE CELLULAR AUTOMATON METHOD  
PHYSICAL MESOMECHANICS 10(1-2), 79-85 (2007)
259. TYAN, A.V.; KNYAZEVA, A.G.; PSAKHIE, S.G..  
NONLINEAR SURFACE PROCESSES UNDER NONEQUILIBRIUM TINI ACTIVATION BY A PULSED ELECTRON BEAM  
RUSSIAN PHYSICS JOURNAL 50(3), 204 (2007)
260. RUZHICH, V.V.; PSAKHIE, S.G.; POPOV, V.L..  
SEISMIC HAZARD MITIGATION BY TECHNOLOGICAL IMPACT ON DISPLACEMENTS IN SEGMENTS OF ACTIVE FAULTS  
PUBLISHER: RESEARCH CENTER OF ASTRONOMY AND GEOPHYSICS, ULAANBAATAR , 204 (2007)
261. RUZHICH, V.V.; PSAKHIE, S.G.; CHERNYKH, E.N.; FEDERYAEV, O.V.; DIMAKI, A.V.; TIRSKIKH, D.S..  
EFFECT OF VIBROPULSE ACTION ON THE INTENSITY OF DISPLACEMENTS IN ROCK CRACKS  
PHYSICAL MESOMECHANICS 10(1), 19 (2007)
262. LERNER, M.; LOGHKOMOYEV, A.; PEHENKO, V.; PSAKHYE, S..  
APPLICATION OF INORGANIC NANOPOWDER FOR SORPTION MICROORGANISMS  
CONFERENCE: PROC. II RUSSIAN-GERMAN CONF. OF THE KOCH-METCHNIKOV FORUM LOCATION: TOMSK DATE: 9-12 SEPTEMBER,  
2007 , 221 (2007)
263. PSAKHIE, S.G.; DUDAREV, E.F.; KASHIN, O.A.; NAYDENKIN, E.V.; RATOCHKA, I.V..  
THE STRUCTURE AND ELASTOPLASTIC PROPERTIES OF ULTRA-FINE GRAINED COMMERCIAL PURITY TITANIUM AND TI-6AL-4V ALLOY  
VOPROSY MATERIALOVEDENIJA 4, 192 (2007)
264. BUCHER, F; DMITRIEV, AI; ERTZ, M; KNOTHE, K; POPOV, VL; PSAKHIE, SG; SHILKO, EV.  
MULTISCALE SIMULATION OF DRY FRICTION IN WHEEL/RAIL CONTACT  
WEAR 261(7-8), 874-884 (2006)
265. SMOLIN, AY; KONOVALENKO, IS; KUL'KOV, SN; PSAKHIE, SG.  
QUASI-VISCOUS FRACTURE OF BRITTLE MEDIA WITH STOCHASTIC PORE DISTRIBUTION  
TECHNICAL PHYSICS LETTERS 32(9), 738-740 (2006)
266. DMITRIEV, AI; PSAKHIE, SG.  
THE ROLE OF EXCESS VOLUME IN THE STAGE OF PLASTIC DEFORMATION INITIATION IN NEAR-SURFACE REGIONS OF A LOADED  
CRYSTAL  
TECHNICAL PHYSICS LETTERS 32(8), 664-666 (2006)
267. YU, BH; OVCHARENKO, VE; PSAKHIE, SG; LAPSHIN, OV.  
ELECTRON-BEAM TREATMENT OF TUNGSTEN-FREE TIC/NICR CERMET II: STRUCTURAL TRANSFORMATIONS IN THE SUBSURFACE  
LAYER  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 22(4), 511-513 (2006)
268. PSAKH'E, SG; ZOL'NIKOV, KP; KRYZHEVICH, DS; LIPNITSKII, AG.  
NUCLEATION OF STRUCTURAL DEFECTS IN MATERIALS WITH A PERFECT CRYSTAL LATTICE BY THERMAL FLUCTUATIONS UNDER  
DYNAMIC LOADING  
COMBUSTION EXPLOSION AND SHOCK WAVES 42(4), 490-492 (2006)
269. FILIPPOV, AE; POPOV, VL; PSAKHIE, SG; RUZHICH, VV; SHILKO, EV.  
CONVERTING DISPLACEMENT DYNAMICS INTO CREEP IN BLOCK MEDIA  
TECHNICAL PHYSICS LETTERS 32(6), 545-549 (2006)
270. DMITRIEV, AI; POPOV, VL; PSAKHIE, SG.  
SIMULATION OF SURFACE TOPOGRAPHY WITH THE METHOD OF MOVABLE CELLULAR AUTOMATA  
TRIBOLOGY INTERNATIONAL 39(5), 444-449 (2006)
271. POPOV, VL; PSAKHIE, SG.  
PHYSICAL NATURE AND PROPERTIES OF DYNAMIC SURFACE LAYERS IN FRICTION  
TRIBOLOGY INTERNATIONAL 39(5), 426-430 (2006)



272. PSAKHIE, SG; ZOINIKOV, KP; KRYZHEVICH, DS; LIPNITSKII, AG.  
MOLECULAR-DYNAMICS STUDY OF CRYSTAL STRUCTURE DEFECT FORMATION BY THE THERMAL FLUCTUATION MECHANISM DURING HIGH-RATE DEFORMATION  
TECHNICAL PHYSICS LETTERS 32(2), 101-102 (2006)
273. PSAKHIE, SG; ZOLNIKOV, KP; KRYZHEVICH, DS; LIPNITSKII, AG.  
ON STRUCTURAL DEFECT GENERATION INDUCED BY THERMAL FLUCTUATIONS IN MATERIALS WITH A PERFECT LATTICE UNDER DYNAMIC LOADING  
PHYSICS LETTERS A 349(6), 509-512 (2006)
274. KNYAZEVA, A.G.; PSAKHIE, S.G..  
ELEMENT DIFFUSION IN AN ACTIVATED SURFACE LAYER  
PHYSICAL MESOMECHANICS 9(2), 49 (2006)
275. DIMAKI, A.V.; ASTAFUROV, S.V.; SHIL'KO, E.V.; RUZHICH, V.V.; PSAKH'E, S. G..  
SDVIG-3M-SOFTWARE/HARDWARE SYSTEM TO RECORD MOVEMENT IN FAULTING ZONES  
PUBLISHER: IGD SO RAN, NOVOSIBIRSK , (2006)
276. PSAKHIE, S. G.; SHILKO, E. V.; ASTAFUROV, S. V.; DIMAKI, A. V.; RUZHICH, V. V.; LOPATIN, V. V..  
A NEW APPROACH TO THE SEISMICALLY SAFE RELAXATION OF LOCAL STRESSES IN THE CRUST  
PUBLISHER: PUBLISHING HOUSE OF THE INSTITUTE OF MINING SB RAS, NOVOSIBIRSK , 451 (2006)
277. SERGEEV, V. P.; FEDORISHCHEVA, M. V.; VORONOV, A. V.; SERGEEV, O. V.; YANOVSKII, V. P.; PSAKHE, S. G..  
TRI-BOMECHANICAL PROPERTIES AND STRUCTURE OF Ti1-XALXN-NANOCOMPOSITE COATINGS  
IZV. TOMSK. POLITEKH. UNIV. 309(2), 149 (2006)
278. DMITRIEV, AI; ZOLNIKOV, KP; PSAKHIE, SG; GOLDIN, SV; PANIN, VE.  
LOW-DENSITY LAYER FORMATION AND "LIFTING FORCE" EFFECT AT MICRO- AND MESO-SCALE LEVELS  
THEORETICAL AND APPLIED FRACTURE MECHANICS 43(3), 324-334 (2005)
279. OVCHARENKO, VE; YU, BH; PSAKHIE, SG.  
ELECTRON-BEAM TREATMENT OF TUNGSTEN-FREE TIC/NICR CERMET I: INFLUENCE OF SUBSURFACE LAYER MICROSTRUCTURE ON RESISTANCE TO WEAR DURING CUTTING OF METALS  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 21(3), 427-429 (2005)
280. DIMAKI, AV; SHIL'KO, EV; PSAKH'E, SG.  
SIMULATING THE PROPAGATION OF EXOTHERMIC REACTIONS IN HETEROGENEOUS MEDIA  
COMBUSTION EXPLOSION AND SHOCK WAVES 41(2), 151-157 (2005)
281. PSAKHIE, S.G.; RUZHICH, V.V.; GRANIN, N.G.; CHENSKY, A.G.; CHERNYKH, E.N.; SHIL'KO, E.V.; DIMAKI, A.V.; ASTAFUROV, S.V..  
EVOLUTION OF SEISMOTECTONIC PROCESSES IN THE EARTH'S CRUST USING BAIKAL ICE COVER AS A MODEL SYSTEM  
MODERN GEODYNAMICS AND HAZARDOUS NATURAL PROCESSES IN CENTRAL ASIA, IRKUTSK: IZK SO RAN (3), 225 (2005)
282. PSAKHIE, SG; RUZHICH, VV; SHILKO, EV; POPOV, VL; DIMAKI, AV; ASTAFUROV, SV; LOPATIN, VV.  
INFLUENCE OF THE STATE OF INTERFACES ON THE CHARACTER OF LOCAL DISPLACEMENTS IN FAULT-BLOCK AND INTERFACIAL MEDIA  
TECHNICAL PHYSICS LETTERS 31(8), 712-715 (2005)
283. DMITRIEV, AI; PSAKHIE, SG.  
MOLECULAR-DYNAMICS STUDY OF A POSSIBLE STRUCTURAL INSTABILITY DURING RELAXATION OF A DEFORMED CRYSTAL  
TECHNICAL PHYSICS LETTERS 31(3), 245-246 (2005)
284. DMITRIEV, AI; PSAKHIE, SG.  
MOLECULAR-DYNAMICS STUDY OF THE FEATURES OF DYNAMIC VORTEX STRUCTURE FORMATION IN A MATERIAL WITH MICROPORES UNDER HIGH-RATE DEFORMATION CONDITIONS  
TECHNICAL PHYSICS LETTERS 31(1), 84-85 (2005)
285. PSAKHIE, S.G.; SHILKO, E.V.; ASTAFUROV, S.V.; DIMAKI, A.V.; RUZHICH, V.V.; LOPATIN, V.V..  
NEW APPROACH TO SEISMICALLY SAFE RELAXATION OF LOCAL STRESSES IN THE EARTH'S CRUST  
PUBLISHER: IGD SO RAN, NOVOSIBIRSK , 451 (2005)
286. PSAKHIE, S.G.; ZOLNIKOV, K.P.; KRYZHEVICH, D.S.; TYUMENTSEV, A.N..  
ON THE GENERATION OF LOCAL STRUCTURAL CHANGES IN A CRYSTAL INDUCED BY THERMAL FLUCTUATIONS UNDER DYNAMIC LOADING  
PHYS. MESOMECH. 8(5-6), 49 (2005)
287. OVCHARENKO, V.E.; PSAKHIE, S.G.; LAPSHIN, O.V..  
ELECTRON-BEAM TREATMENT OF TUNGSTEN-FREE METAL-CERAMICS. II. STRUCTURE TRANSFORMATIONS IN NEAR THE SURFACE LAYER  
FIZIKA I KHIMIYA OBRABOTKI MATERIALOV (1), 31 (2005)
288. PSAKHIE, S.G.; SMOLIN, A.YU.; STEFANOV, YU.P.; KONOVALENKO, IG.S..  
SIMULATION OF FRICTION PROCESSES ON THE BASIS OF A HYBRID DISCRETE-CONTINUUM APPROACH  
PHYSICAL MESOMECHANICS 8(S), 9 (2005)
289. BUKRINA, N.V.; KNYAZEVA, A.G.; OVCHARENKO, V.E.; PSAKHIE, S.G..  
NUMERICAL STUDY OF THE FORMATION OF A TRANSITION ZONE BETWEEN PARTICLES AND A MATRIX IN THE PROCESS OF NON-EQUILIBRIUM ELECTRON-BEAM MODIFICATION OF THE SURFACE OF A COMPOSITE MATERIAL  
PHYSICAL MESOMECHANICS 8(S), 53 (2005)
290. OVCHARENKO, V.E.; PSAKHIE, S.G.; SAVITSKII, A.P..  
INFLUENCE OF ELECTRONIC RADIATION ON RESISTANCE TO WEAR OF TIC-NICR HARD ALLOY AT CUTTING STEEL  
CONFERENCE: EURO PM 2005 CONGRESS AND EXHIBITION IN PRAGUE, PROCEEDINGS 3, 267 (2005)

291. CHEN, K; HUANG, DW; SHILKO, EV; PSAKHIE, SG.  
STRENGTH ANALYSIS OF CERAMICS UNDER DIFFERENT CONSTRAINTS BY MOVABLE CELLULAR AUTOMATA METHOD  
JOURNAL OF AIRCRAFT 41(3), 641-644 (2004)
292. PSAKHIE, SG; SHILKO, EV; ASTAFUROV, SV.  
PECULIARITIES OF THE MECHANICAL RESPONSE OF HETEROGENEOUS MATERIALS WITH HIGHLY DEFORMABLE INTERFACES  
TECHNICAL PHYSICS LETTERS 30(3), 237-239 (2004)
293. DMITRIEV, AI; PSAKHIE, SG.  
MOLECULAR-DYNAMICS STUDY OF THE INITIAL STAGE OF NANOSCALE DEFORMATION LOCALIZATION IN THE SURFACE LAYERS OF A LOADED SOLID  
TECHNICAL PHYSICS LETTERS 30(7), 578-579 (2004)
294. DMITRIEV, AI; PSAKHIE, SG.  
MOLECULAR-DYNAMICS STUDY OF NANOFRAGMENTATION DURING RELAXATION IN AFTER-LOADED SOLIDS  
TECHNICAL PHYSICS LETTERS 30(8), 677-678 (2004)
295. PSAKHIE, SG; SMOLIN, AY; STEFANOV, YP; MAKAROV, PV; CHERTOV, MA.  
MODELING THE BEHAVIOR OF COMPLEX MEDIA BY JOINTLY USING DISCRETE AND CONTINUUM APPROACHES  
TECHNICAL PHYSICS LETTERS 30(9), 712-714 (2004)
296. CHERTOV, MA; SMOLIN, AY; SAPOZHNIKOV, GA; PSAKHIE, SG.  
THE EFFECT OF SURFACE WAVES ON THE INTERACTION OF INCIDENT PARTICLES WITH A SOLID SURFACE  
TECHNICAL PHYSICS LETTERS 30(12), 1009-1012 (2004)
297. DMITRIEV, AI; PSAKHIE, SG.  
MOLECULAR-DYNAMICS STUDY OF DYNAMIC VORTEX DEFECTS AS THE MECHANISM OF RELAXATION IN LOADED SOLIDS  
TECHNICAL PHYSICS LETTERS 30(6), 497-499 (2004)
298. PANIN, V.E.; GRINYAEV, YU.V.; PSAKHIE, S.G..  
TWO DECADES OF DEVELOPMENTS IN PHYSICAL MESOMECHANICS: ACHIEVEMENTS, PROBLEMS AND PROSPECTS  
FIZ. MEZOMEKH. 7, 123 (2004)
299. PSAKHIE, S.G.; SHILKO, E.V.; ASTAFUROV, S.V..  
STUDY OF MECHANICAL RESPONSE OF INTERFACED MATERIALS WITH HIGH ABILITY TO DEFORMATION  
PIS. ZHTF 30(6), 45 (2004)
300. SMOLIN, A.YU.; STETANOV, YU.P.; PSAKHIE, S.G..  
COMBINED USE OF A DISCRETE AND CONTINUOUS METHODS FOR THE SIMULATION OF DEFORMATION AND FRACTURE IN THE CONTACT REGION  
PHYS. MESOMECH. 7, 70 (2004)
301. PRIBYTKOV, G. A.; KOROSTELEVA, E. N.; PSAKHIE, S. G.; GONCHARENKO, I. M.; IVANOV, YU. F.; KOVAL, N. N.; SHANIN, P. M.; GURSKIH, A. V.; KORJOVA, V. V.; MIRONOV, YU. P..  
NANOSTRUCTURED TITANIUM NITRIDE COATINGS PRODUCED BY ARC SPUTTERING OF COMPOSITE CATHODES. I. CATHODES STRUCTURE, PHASE COMPOSITION AND SPUTTERING PECULIARITIES  
CONFERENCE: PROCEEDINGS OF 7 INT. CONF. ON MODIFICATION OF MATERIALS WITH PARTICLE BEAMS AND PLASMA FLOWS LOCATION: TOMSK , 163 (2004)
302. BONDAR, M.P.; OBODOVSKII, E.S.; PSAKHE, S.G..  
THE STUDY OF THE MICROSTRUCTURE OF THE CONTACT ZONE OF POWDER PARTICLES DURING DYNAMIC PRESSING  
FIZ. MEZOMEKH. 7(3), 17 (2004)
303. POPOV, VL; PSAKHIE, SG; DMITRIEV, A; SHILKO, E.  
QUASI-FLUID NANO-LAYERS AT THE INTERFACE BETWEEN RUBBING BODIES: SIMULATIONS BY MOVABLE CELLULAR AUTOMATA  
WEAR 254(9), 901-906 (2003)
304. PSAKHIE, S.G.; STEFANOV, Y; MAKAROV, P.V.; SHILKO, E.V.; CHERTOV, M.A.; EVTUSHENKO, E.P.; SMOLIN, A.YU.  
SIMULATION OF BEHAVIOR OF COMPLEX MEDIA ON THE BASIS OF A DISCRETE-CONTINUOUS APPROACH  
PHYS. MESOMECH. 6(5-6), 47 (2003)
305. PSAKH'E, SG; ZOL'NIKOV, KP; KOSTIN, IA.  
A NONLINEAR MECHANISM OF THE ENERGY TRANSFER BY A PERTURBATION FRONT IN THE COURSE OF LOCAL HIGH-ENERGY LOADING  
TECHNICAL PHYSICS LETTERS 28(1), 52-54 (2002)
306. ZAVSEK, S.; SHILKO, E. V.; DMITRIEV, A. I.; PSAKHIE, S. G.; DIMAKI, A. V.; PEZDICH, J..  
COMPUTER-AIDED INVESTIGATION OF RESPONSE AND FRACTURE OF LIGNITE USING MCA METHOD AND SYMBIOTIC CELLULAR AUTOMATA APPROACH  
CONFERENCE: PROC. INT. CONF. NEW CHALLENGES IN MESOMECH. LOCATION: AALBORG, DENMARK , 19 (2002)
307. ASTAFUROV, S.V.; SHILKO, E.V.; PSAKHIE, S.G..  
EFFECT OF STRENGTH RATIO OF MOVABLE CELLULAR AUTOMATON RESPONSE FUNCTION ON STRENGTH AND FRACTURE FEATURES OF BRITTLE MATERIALS  
PHYS. MESOMECH. 5(3-4), 109 (2002)
308. POPOV, V.L.; PSAKHIE, S.G.; SHILKO, E.V.; DMITRIEV, A.I.; KNOTHE, K.; BUCHER, F.; ERTZ, 1..  
FRICTION COEFFICIENT IN RAIL-WHEEL CONTACTS AS A FUNCTION OF MATERIAL AND LOADING PARAMETERS  
PHYS. MESOMECH 5(3), 17 (2002)
309. PSAKHIE, SG; HORIE, Y; OSTERMEYER, GP; KOROSTELEV, SY; SMOLIN, AY; SHILKO, EV; DMITRIEV, AI; BLATNIK, S; SPEGEL, M; ZAVSEK, S.

- MOVABLE CELLULAR AUTOMATA METHOD FOR SIMULATING MATERIALS WITH MESOSTRUCTURE  
THEORETICAL AND APPLIED FRACTURE MECHANICS 37(1-3), 311-334 (2001)
310. ZOL'NIKOV, KP; UVAROV, TY; PSAKH'E, SG.  
ANISOTROPY OF THE PLASTIC DEFORMATION AND FRACTURE PROCESSES IN A DYNAMICALLY LOADED CRYSTALLITE  
TECHNICAL PHYSICS LETTERS 27(4), 263-265 (2001)
311. GOLDIN, S.V.; PSAKHIE, S.G.; DMITRIEV, A.I.; YUSHIN, V.I..  
STRUCTURE REARRANGEMENT AND LIFTING FORCE PHENOMENON IN GRANULAR SOIL UNDER DYNAMIC LOADING  
PHYS. MESOMECH. 4(3), 91 (2001)
312. POPOV, VL; PSAKHIE, SG.  
THEORETICAL FRAMEWORK OF ELASTO-PLASTIC MEDIA SIMULATION USING MOVABLE CELLULAR AUTOMATA METHOD. I.  
HOMOGENEOUS MEDIA  
PHYS MESOMECH 4(1), 17 (2001)
313. PSAKHIE, SG; ZAVSHEK, S; JEZERSHEK, J; SHILKO, EV; DMITRIEV, AI; SMOLIN, AY; BLATNIK, S.  
COMPUTER-AIDED EXAMINATION AND FORECAST OF STRENGTH PROPERTIES OF HETEROGENEOUS COAL-BEDS  
COMPUTATIONAL MATERIALS SCIENCE 19(1-4), 69-76 (2000)
314. PSAKHIE, SG; SMOLIN, AY; TATARINTSEV, EM.  
DISCRETE APPROACH TO STUDY FRACTURE ENERGY ABSORPTION UNDER DYNAMIC LOADING  
COMPUTATIONAL MATERIALS SCIENCE 19(1-4), 179-182 (2000)
315. ZOL'NIKOV, KP; UVAROV, TY; LIPNITSKII, AG; SARAEV, DY; PSAKH'E, SG.  
SPECIFIC FEATURES OF THE NANOSCOPIC SPALLING FRACTURE NEAR THE GRAIN BOUNDARY  
COMBUSTION EXPLOSION AND SHOCK WAVES 36(5), 667-669 (2000)
316. PSAKH'E, SG; ZOL'NIKOV, KP; UVAROV, TY.  
NEW APPROACH TO THE APPLICATION OF MULTILAYER SUPERTHIN COATINGS. EFFECTS OF MIXING  
COMBUSTION EXPLOSION AND SHOCK WAVES 36(4), 543-545 (2000)
317. ZOL'NIKOV, KP; UVAROV, TY; SKRIPNYAK, VA; LIPNITSKII, AG; SARAEV, DY; PSAKH'E, SG.  
EFFECT OF GRAIN BOUNDARY ON THE CHARACTER OF PULSE-TRAIN-INDUCED CLEAVAGE FRACTURE IN COPPER CRYSTAL  
TECHNICAL PHYSICS LETTERS 26(4), 323-325 (2000)
318. TARABAEV, LP; PSAKH'E, SG; ESIN, VO.  
COMPUTER SIMULATION OF SEGREGATION, PLASTIC DEFORMATION, AND DEFECTS FORMATION DURING SYNTHESIS OF COMPOSITE  
MATERIALS  
FIZIKA METALLOV I METALLOVEDENIE 89(3), 11-18 (2000)
319. PSAKH'E, SG; ZOL'NIKOV, KP; UVAROV, TY.  
A NEW METHOD OF LAYER DEPOSITION  
TECHNICAL PHYSICS LETTERS 26(10), 851-853 (2000)
320. PSAKHIE, SG; SMOLIN, AY; TATARINTSEV, EM; SHVAB, EA.  
THE EFFECT OF ELASTIC ENERGY ACCUMULATION AND THE POSSIBILITY OF CONTROLLING THE FRACTURE PROCESS IN COMPLEX  
STRUCTURES  
TECHNICAL PHYSICS LETTERS 26(1), 51-53 (2000)
321. PSAKH'E, S. G.; UVAROV, T.YU.; ZOL'NIKOV, K. P..  
NEW MECHANISM OF GENERATION OF DEFECTS ON INTERFACES. MOLECULAR DYNAMICS SIMULATION  
FIZ. MEZOMEKH 3(3), 69 (2000)
322. PSAKHIE, SG; OSTERMEYER, GP; DMITRIEV, AI; SHILKO, EV; SMOLIN, AYU; KOROSTELEV, SYU.  
METHOD OF MOVABLE CELLULAR AUTOMATA AS A NEW TREND OF DISCRETE COMPUTATIONAL MECHANICS. I THEORETICAL  
DESCRIPTION  
PHYS MESOMECH 3(2), 5 (2000)
323. ZOL'NIKOV, KP; UVAROV, TY; LIPNITSKII, AG; SARAEV, DY; PSAKH'E, SG.  
CHARACTERISTICS OF CLEAVAGE FRACTURE DURING INTERACTION OF NONLINEAR WAVES WITH THE FREE SURFACE OF A COPPER  
SINGLE CRYSTAL  
TECHNICAL PHYSICS LETTERS 25(12), 936-937 (1999)
324. PSAKHIE, SG; MOISEYENKO, DD; SMOLIN, AY; SHILKO, EV; DMITRIEV, AI; KOROSTELEV, SY; TATARINTSEV, EM.  
THE FEATURES OF FRACTURE OF HETEROGENEOUS MATERIALS AND FRAME STRUCTURES. POTENTIALITIES OF MCA DESIGN  
COMPUTATIONAL MATERIALS SCIENCE 16(1-4), 333-343 (1999)
325. PSAKH'E, SG; ZOL'NIKOV, KP; SARAEV, DY.  
CHANGE IN THE STRUCTURAL STATE OF GRAIN BOUNDARIES UNDER HIGH-RATE MECHANICAL LOADING  
COMBUSTION EXPLOSION AND SHOCK WAVES 35(6), 704-706 (1999)
326. PSAKHIE, SG; ZOLNIKOV, KP; KADYROV, RI; RUDENSKII, GE; VASSILIEV, SA; SHARKEEV, YP.  
ABOUT NONLINEAR MECHANISM OF ENERGY TRANSFORMATION AT ION IMPLANTATION  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 15(6), 581-582 (1999)
327. PSAKH'E, SG; ZOL'NIKOV, KP; KADYROV, RI; RUDENSKII, GE; SARAEV, DY.  
INTERACTION OF SOLITARY PULSES PRODUCED BY HIGH-RATE LOADING WITH A FREE SURFACE  
COMBUSTION EXPLOSION AND SHOCK WAVES 35(4), 450-452 (1999)
328. ZOL'NIKOV, KP; KADYROV, RI; NAUMOV, II; PSAKH'E, SG; RUDENSKII, GE; KUZNETSOV, VM.  
POSSIBLE NONLINEAR HEAT-PULSE PROPAGATION IN SOLIDS AT DEBYE TEMPERATURES  
TECHNICAL PHYSICS LETTERS 25(3), 230-232 (1999)

329. PSAKH'E, SG; ZOL'NIKOV, KP; KADYROV, RI; RUDENSKII, GE; SHARKEEV, YP; KUZNETSOV, VM.  
THE POSSIBILITY OF FORMING SOLITON-LIKE PULSES DURING ION IMPLANTATION  
TECHNICAL PHYSICS LETTERS 25(3), 209-211 (1999)
330. PSAKHIE, SG; ZOLNIKOV, KP; SARAEV, DY.  
DISSIPATION OF SOLITARY WAVES IN ALUMINUM WITH GRAIN BOUNDARY  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 14(5), 475-477 (1998)
331. PSAKH'E, SG; ZOL'NIKOV, KP.  
POSSIBILITY OF A VORTEX MECHANISM OF DISPLACEMENT OF THE GRAIN BOUNDARIES UNDER HIGH-RATE SHEAR LOADING  
COMBUSTION EXPLOSION AND SHOCK WAVES 34(3), 366-368 (1998)
332. PSAKH'E, SG; SARAEV, DY; ZOL'NIKOV, KP.  
PROPAGATION OF SOLITARY COMPRESSION WAVES IN HETEROGENEOUS MATERIALS UNDER HIGH-SPEED LOADING  
COMBUSTION EXPLOSION AND SHOCK WAVES 34(3), 364-365 (1998)
333. RUBTSOV, VE; PSAKH'E, SG; KOLUBAEV, AV.  
STUDY OF THE FORMATION OF CONTACT BETWEEN ROUGH SURFACES BASED ON THE PARTICLE METHOD  
TECHNICAL PHYSICS LETTERS 24(3), 178-179 (1998)
334. PSAKH'E, SG; MOISEENKO, DD; DMITRIEV, AI; SHIL'KO, EV; KOROSTELEV, SY; SMOLIN, AY; DERYUGIN, EE; KUL'KOV, SN.  
A POSSIBLE METHOD OF COMPUTER-AIDED DESIGN OF MATERIALS WITH A HIGHLY POROUS MATRIX STRUCTURE BASED ON THE  
METHOD OF MOVING CELLULAR AUTOMATA  
TECHNICAL PHYSICS LETTERS 24(2), 154-156 (1998)
335. PSAKH'E, SG; ZOL'NIKOV, KP; SARAEV, DY.  
NONLINEAR EFFECTS IN DYNAMIC LOADING OF A MATERIAL WITH DEFECT ZONES  
TECHNICAL PHYSICS LETTERS 24(2), 99-101 (1998)
336. PSAKHIE, SG; ZOLNIKOV, KP; SARAEV, DY.  
HOT SPOT IN MATERIALS WITH STRUCTURAL DEFECTS UNDER HIGH SHEAR LOADING RATES  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 14(1), 72-74 (1998)
337. PSAKH'E, SG; SMOLIN, AY; SHIL'KO, EV; KOROSTELEV, SY; DMITRIEV, AI; ALEKSEEV, SV.  
CHARACTERISTICS OF THE RELAXATION TO STEADY-STATE DEFORMATION IN SOLIDS  
TECHNICAL PHYSICS 42(9), 1016-1018 (1997)
338. PSAKH'E, SG; ZOL'NIKOV, KP.  
ANOMALOUSLY HIGH RATE OF GRAIN BOUNDARY DISPLACEMENT UNDER FAST SHEAR LOADING  
TECHNICAL PHYSICS LETTERS 23(7), 555-556 (1997)
339. PSAKHIE, SG; ZOL'NIKOV, KP; SARAEV, DY.  
LOCAL STRUCTURAL INSTABILITY AND FORMATION OF HOT SPOTS IN MATERIALS UNDER MECHANICAL LOADING  
COMBUSTION EXPLOSION AND SHOCK WAVES 33(2), 246-249 (1997)
340. PSAKHIE, SG; SMOLIN, AY; SHILKO, EV; KOROSTELEV, SY; DMITRIEV, AI; ALEKSEEV, SV.  
ABOUT THE FEATURES OF TRANSIENT TO STEADY STATE DEFORMATION OF SOLIDS  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 13(1), 69-72 (1997)
341. PSAKHE, SG; SHILKO, EV; DMITRIEV, AI; KOROSTELEV, SY; SMOLIN, AY; KOROSTELEVA, EN.  
SELF-ORGANIZATION EFFECTS DURING DEFORMATION PROCESSES OF POWDER MATERIALS  
PISMA V ZHURNAL TEKHNIЧЕСКОИ ФИЗИКИ 22(12), 69-74 (1996)
342. PSAKHE, SG; SARAEV, DY; ZOLNIKOV, KP.  
INTERACTION OF ISOLATED WAVES IN MATERIALS WITH ATOMIC STRUCTURAL DEFECTS  
PISMA V ZHURNAL TEKHNIЧЕСКОИ ФИЗИКИ 22(10), 6-9 (1996)
343. PSAKHE, SG; SHILKO, EV; DMITRIEV, AI; KOROSTELEV, SY; SMOLIN, AY.  
VORTEX CHARACTER OF ELASTIC MATERIAL DEFORMATION NEAR THE SURFACE  
PISMA V ZHURNAL TEKHNIЧЕСКОИ ФИЗИКИ 22(2), 90-93 (1996)
344. ZOLNIKOV, KP; PSAKHIE, SG; NEGRESKUL, SI; KOROSTELEV, SY.  
COMPUTER SIMULATION OF PLASTIC DEFORMATION IN GRAIN BOUNDARY REGION UNDER HIGH RATE LOADING  
JOURNAL OF MATERIALS SCIENCE & TECHNOLOGY 12(3), 235-237 (1996)
345. TANG, ZP; HORIE, Y; PSAKHIE, SG.  
DISCRETE MESO-ELEMENT DYNAMIC SIMULATION OF SHOCK RESPONSE OF REACTIVE POROUS SOLIDS  
SHOCK COMPRESSION OF CONDENSED MATTER - 1995 370, 657-660 (1996)
346. PSAKHE, SG; SMOLIN, AY; KOROSTELEV, SY; DMITRIEV, AI; SHILKO, EV; ALEKSEEV, SV.  
STUDY OF THE SETTING OF STATIONARY MODE FOR SOLID STATE DEFORMATION USING THE MOVING CELLULAR AUTOMATA  
PISMA V ZHURNAL TEKHNIЧЕСКОИ ФИЗИКИ 21(20), 72-76 (1995)
347. PSAKHE, SG; ZOLNIKOV, KP; KOROSTELEV, SY.  
NONLINEAR RESPONSE OF MATERIALS UNDER THE HIGH-SPEED DEFORMATION. ATOMIC LEVEL  
PISMA V ZHURNAL TEKHNIЧЕСКОИ ФИЗИКИ 21(13), 1-5 (1995)
348. PSAKHE, SG; SHILKO, EV; NEGRESKUL, SI.  
LAWS OF MOTION OF THE EXOTHERMIC REACTION FRONT IN A POWDER MEDIUM  
POWDER METALLURGY AND METAL CERAMICS 34(5-6), 288-292 (1995)
349. PSAKHIE, SG.  
NEW MECHANISM OF HIGH VELOCITY MASS TRANSFER AT MICRO LEVEL  
METALLURGICAL AND MATERIALS APPLICATIONS OF SHOCK-WAVE AND HIGH-STRAIN-RATE PHENOMENA , 567-574 (1995)

350. PSAKHIE, S.G.; HORIE, Y.; KOROSTELEV, S.YU.; SMOLIN, A.YU.; DMITRIEV, A.I.; SHILKO, E.V.; ALEKSEEV, S.V..  
METHOD OF MOVABLE CELLULAR AUTOMATA AS A TOOL FOR SIMULATION WITHIN THE FRAMEWORK OF MESOMECHANICS  
RUSSIAN PHYSICS JOURNAL 38(11), 1157 (1995)
351. DMITRIEV, AI; PSAKHIE, SG.  
UNUSUAL RESPONSE OF MATERIALS WITH MICROPORES UNDER HIGH RATE LOADING AT THE ATOMIC LEVEL  
METALLURGICAL AND MATERIALS APPLICATIONS OF SHOCK-WAVE AND HIGH-STRAIN-RATE PHENOMENA , 855-859 (1995)
352. PSAKH'E, S.G.; SMOLIN, A.YU.; KOROSTELEV, S.YU.; DMITRIEV, A.I.; SHIL'KO, E.V.; ALEKSEEV, S.V..  
STUDY OF RELAXATION TO A STEADY STATE OF STRAINING OF A SOLID BY THE MOVABLE METHOD CELLULAR AUTOMATA  
TECHNICAL PHYSICS LETTERS 21(10), 849 (1995)
353. PSAKH'E, S.G.; ZOL'NIKOV, K.P.; KOROSTELEV, S.YU..  
NONLINEAR RESPONSE OF A MATERIAL DURING HIGH-RATE DEFORMATION. ATOMIC LEVEL  
TECHNICAL PHYSICS LETTERS 21(7), 489 (1995)
354. PSAKHE, SG; DMITRIEV, AI.  
ORIGINATION OF DYNAMIC TURBULENT STRUCTURES UNDER HIGH-SPEED MATERIAL DEFORMATION WITH MICROPORES SYSTEM  
ZHURNAL TEKHNICHESKOI FIZIKI 64(8), 186-190 (1994)
355. PSAKHE, SG; DMITRIEV, AI.  
EFFECT OF POINTED DEFECTS IN THE STABILITY OF 2-DIMENSIONAL ATOMIC LATTICES  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 20(7), 83-87 (1994)
356. PSAKHE, SG; SHILKO, EV; NEGRESKUL, SI.  
DESCRIPTION OF THE MOVEMENT OF EXOTHERMAL REACTION FRONT IN POWDER MEDIUM  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 20(2), 35-39 (1994)
357. PSAKHE, SG; SARAEV, DY; KOROSTELEV, SY.  
THIN STRUCTURE OF PERTURBATION DISPERSION FRONT UNDER PULSE LOCAL HEATING IN UNIDIMENSIONAL LATTICE  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 20(2), 40-43 (1994)
358. PSAKHE, SG; KOROSTELEV, SY; NEGRESKUL, SI; ZOLNIKOV, KP; VANG, Z; LI, S.  
VORTEX MECHANISM OF PLASTIC DEFORMING OF GRAIN-BOUNDARIES - COMPUTER-BASED EXPERIMENT  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 20(1), 36-39 (1994)
359. PSAKH'E, S.G.; DMITRIEV, A.I..  
APPEARANCE OF DYNAMIC VORTEX STRUCTURES DURING HIGH-VELOCITY DEFORMATION OF MATERIAL CONTAINING A SYSTEM OF  
MICROPORES  
TECHNICAL PHYSICS 39(8), 850 (1994)
360. PSAKH'E, S.G.; KOROSTELEV, S.YU.; NEGRESKUL, S.I.; ZOL'NIKOV, K.P.; VANG, ZH.; LI, SH..  
VORTEX MECHANISM OF PLASTIC DEFORMATION OF GRAIN BOUNDARIES. A COMPUTER EXPERIMENT  
TECHNICAL PHYSICS LETTERS 20(1), 17 (1994)
361. LI, SX; WANG, ZG; PSAKHIE, SG.  
ON THE STRESS-FIELD NEAR THE MICRO-CRACK TIP  
PHYSICA STATUS SOLIDI A-APPLIED RESEARCH 139(1), 95-100 (1993)
362. PSAKHIE, SG; KOROSTELEV, SY; NEGRESKUL, SI; ZOLNIKOV, KP; WANG, ZG; LI, SX.  
VORTEX MECHANISM OF PLASTIC-DEFORMATION OF GRAIN-BOUNDARIES - COMPUTER-SIMULATION  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 176(2), K41-K44 (1993)
363. PSAKHIE, S.G.; KOROSTELEV, S.Y.; NEGRESKUL, S.I.; ZOLNIKOV, K.P.; WANG, Z.; LI, S..  
VORTEX MECHANISM OF PLASTIC DEFORMATION OF GRAIN BOUNDARIES. COMPUTER SIMULATION  
PHYS. STATUS SOLIDI , (1993)
364. ALEKSEEV, SV; PSAKHIE, SG; PANIN, VE.  
THE FEATURES OF ENERGETIC DIFFUSION CHARACTERISTICS OF INTERSTITIAL ATOMS IN CRYSTALS UNDER SHEAR DEFORMATION  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 168(1), K1-K4 (1991)
365. GLUZMAN, SL; PSAKHE, SG.  
SHEAR INSTABILITY IN A SYSTEM OF POINT-DEFECTS  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS 164(1), 59-67 (1991)
366. GLUZMAN, SL; PSAKHYE, SG; PANIN, VE.  
HYDRODYNAMICAL MODE IN SOLIDS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 34(2), 113-115 (1991)
367. ALEKSEYEV, SV; PSAKHYE, SG; PANIN, VY.  
SHIFT DEFORMATION EFFECT ON THE ATOMIC DISTRIBUTION OF MAGNESIUM IMPURITY IN ALUMINUM  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 33(12), 49-52 (1990)
368. LEMBERG, VF; PSAKHIE, SG.  
ANALYTICAL REPRESENTATION OF THE THERMODYNAMIC FUNCTIONS OF SIMPLE METALS IN THE MODEL OF SELF-CONSISTENT  
EINSTEIN OSCILLATORS  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 159(2), 645-657 (1990)
369. GLUZMAN, SL; PSAKHYE, SG; PANIN, VY.  
A PHENOMENOLOGICAL MODEL OF HOMOGENEOUS STATE OF A MATERIAL UNDER PULSE AFFECTION  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 33(6), 50-55 (1990)
370. PANIN, VE; MESHCHERYAKOV, YI; ELSUKOVA, TF; DIVAKOV, AK; PSAKHE, SG; MISHLYAEV, MM.  
NONCRYSTALLOGRAPHIC STRUCTURE LEVELS OF DEFORMATION IN HIGH EXCITED SYSTEMS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 33(2), 107-120 (1990)

371. PANIN, V.E.; MESHCHERYAKOV, YU.I.; ELSUKOVA, T.E.; DIVAKOV, A.K.; PSAKHIE, S.G.; MYSHLYAEV, M.M..  
NONCRYSTALLOGRAPHIC STRUCTURAL DEFORMATION LEVELS IN STRONGLY EXCITED SYSTEMS  
RUSS. PHYS. J. 33(2), 180 (1990)
372. LEMBERG, VF; PSAKHE, SG; PANIN, VE.  
THEORETICAL-STUDY OF DISCHARGING WAVES IN NON-TRANSITION METALS  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 15(22), 59-62 (1989)
373. LEMBERG, VF; PSAKHE, SG; PANIN, VE.  
CALCULATION OF SHOCK ADIABATIC CURVES OF POROUS METAL MATERIALS BY THE PSEUDOPOTENTIAL METHOD  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 15(21), 69-72 (1989)
374. GLUZMAN, SL; PSAKHE, SG.  
HYDRODYNAMIC MODE IN SOLIDS UNDER THE STRONG OUTER EFFECT  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 15(19), 44-48 (1989)
375. PSAKHIE, SG; ALEKSEEV, SV; PANIN, VE.  
INFLUENCE OF SHEAR ON THE BINDING-ENERGY OF COMPLEXES OF IMPURITIES AND VACANCY IN ALUMINUM  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 153(1), K11-K15 (1989)
376. GLUZMAN, S.L.; PSAKH'E, S.G..  
HYDRODYNAMIC MODE IN A SOLID UNDER CONDITIONS OF A STRONG EXTERNAL ACTION  
SOVIET TECHNICAL PHYSICS LETTERS 15(10), 764 (1989)
377. PSAKHE, SG; KOROSTELEV, SY; PANIN, VE.  
ORIGINATION OF DOMAINS WITH DISORDERED STRUCTURE UNDER SHOCK-WAVE DISTRIBUTION IN CRYSTALS  
PISMA V ZHURNAL TEKHNICHESKOI FIZIKI 14(18), 1645-1648 (1988)
378. KOROSTELEV, SY; PSAKHE, SG; PANIN, VE.  
A MOLECULAR-DYNAMICAL STUDY OF THE CHANGES IN THE ATOMIC-STRUCTURE OF A MATERIAL INDUCED BY A SHOCK-WAVE WITH A DISTORTED FRONT  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 148(2), 483-488 (1988)
379. GLUZMAN, SL; PSAHYE, SG; PANIN, VE.  
PHENOMENOLOGICAL MODEL OF THE FORMATION OF DISCONTINUITIES IN SOLIDS UNDER LOADING - QUASIONE-DIMENSIONAL CASE  
FIZIKA TVERDOGO TELA 29(11), 3443-3446 (1987)
380. KUSHNIRENKO, AY; PSAKHIE, SG; GLUZMAN, SL; PANIN, VY.  
ON THE FORMATION OF STABLE STRUCTURES FROM ELEMENTS OF DESTRUCTION PROCESS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 30(7), 46-49 (1987)
381. GLUZMAN, SL; PSAKHIE, SG; PANIN, VE.  
PHENOMENOLOGICAL DESCRIPTION OF DISLOCATIONS AT HIGH-TEMPERATURES AND HEAVY EXTERNAL LOADS  
FIZIKA TVERDOGO TELA 29(5), 1503-1505 (1987)
382. ZOLNIKOV, KP; PSAKHE, SG; PANIN, VE.  
ALLOY PHASE-DIAGRAMS USING TEMPERATURE, CONCENTRATION AND DENSITY AS VARIABLES  
JOURNAL OF PHYSICS F-METAL PHYSICS 16(8), 1145-1152 (1986)
383. ZOLNIKOV, KP; PSAKHE, SG; PANIN, VE.  
PARTIAL STRUCTURE FACTORS OF THE MELT IN THE LONG-WAVE LIMIT - THE CALCULATION OF THE STATE DIAGRAM OF THE LI-NA SYSTEM  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH 134(2), K115-K119 (1986)
384. PSAKHIE, SG; ZOLNIKOV, KP; PANIN, VY.  
CONSTRUCTION OF NON-EQUILIBRIUM STATE DIAGRAMS OF T-N-TYPE - ANALYSIS OF TEMPERATURE-DEPENDENCE OF PHASE-COMPOSITION USING THESE DIAGRAMS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 28(8), 69-72 (1985)
385. GLUZMAN, SL; PSAKHIE, SG; PANIN, VY.  
FOUNDATIONS OF ROTARY CHARACTER OF SOLID DEFORMATION DELIVERED BY THEORY OF GAUGED FIELDS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 28(9), 122-123 (1985)
386. ZOLNIKOV, KP; PSAKHIE, SG; PANIN, VY; LANDA, AI.  
INFLUENCE OF THE PROCEDURE OF DETERMINATION OF PSEUDO-POTENTIAL PARAMETERS ON DESCRIPTION OF THERMODYNAMICAL CHARACTERISTICS OF FUSION OF MG AND ZN  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 28(7), 116-118 (1985)
387. GLUZMAN, SL; PSAKHIE, SG; PANIN, VY.  
A DESTRUCTION AS EVOLUTION OF ACTIVE KINETIC SYSTEM  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 28(6), 77-80 (1985)
388. ZOLNIKOV, KP; PSAKHIE, SG; LANDA, AI; PANIN, VE.  
PSEUDOPOTENTIAL STUDY OF THERMODYNAMICAL CHARACTERISTICS OF SUPERCOOLED MG AND ZN  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 27(4), 20-24 (1984)
389. ZOLNIKOV, KP; PSAKHE, SG; LANDA, AI; PANIN, VY.  
THEORETICAL-STUDIES OF PRESSURE INFLUENCE ON THERMODYNAMIC MELTING CHARACTERISTICS AND SELF-DIFFUSION COEFFICIENTS OF MG AND ZN MELTS  
FIZIKA METALLOV I METALLOVEDENIE 57(6), 1045-1049 (1984)

390. PANIN, VE; PSAKHYE, SG; LANDA, AI.  
PROBLEMS OF THERMODYNAMICAL DESCRIPTION OF REAL CRYSTALS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA 25(12), 95-102 (1982)
391. LANDA, AI; PSAKHYE, SG; PANIN, VE; ZHOROVKOV, MF.  
VEGARDS RULES FOR AN EQUILIBRIUM VOLUME OF SOLID-SOLUTION  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA (6), 118-120 (1981)
392. CHULKOV, YV; PANIN, VY; PSAKHYE, SG.  
CALCULATION OF VACANCY ENERGETIC PARAMETERS IN ALKALINE-METALS, ALUMINUM AND INDIUM  
FIZIKA METALLOV I METALLOVEDENIE 52(6), 1296-1306 (1981)
393. CHULKOV, YV; PANIN, VY; PSAKHYE, SG.  
INTER-ATOMIC INTERACTIONS AND VACANCY FORMATION ENERGY IN THE INTERMETALLIC COMPOUNDS LIAL, LIIN AND NATL  
FIZIKA METALLOV I METALLOVEDENIE 51(5), 928-934 (1981)
394. CHULKOV, E.V.; PANIN, V.E.; PSAKH'E, S.G..  
CALCULATION OF THE ENERGY CHARACTERISTICS OF VACANCIES IN ALKALI METALS, ALUMINIUM, AND INDIUM  
FIZIKA METALLOV I METALLOVEDENIE 52(6), 1296 (1981)
395. CHULKOV, E.V.; PANIN, V.E.; PSAKHE, S.G..  
ATOMIC INTERACTIONS AND THE ENERGY OF VACANCY FORMATION IN INTERMETALLIC COMPOUNDS LIAL, LIIN, AND NATL  
FIZIKA METALLOV I METALLOVEDENIE 51(5), 928 (1981)
396. PSAKHYE, SG; PANIN, VE; CHULKOV, EV; ZHOROVKOV, MF.  
CALCULATION OF THE BOND-ENERGY OF MG AND ZN IMPURITIES WITH VACANCIES IN AL-ALLOYS  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA (8), 99-104 (1980)
397. PSAKHYE, SG; PANIN, VY; CHULKOV, YV; ZHOROVKOV, MF.  
PSEUDOPOTENTIAL THEORY CALCULATION OF BOUNDING ENERGY OF ZINC ATOM WITH VACANCY IN ALUMINUM  
FIZIKA METALLOV I METALLOVEDENIE 50(3), 620-622 (1980)
398. CHULKOV, YV; PSAKHYE, SG; ZHOROVKOV, MF; PANIN, VY.  
PSEUDOPOTENTIAL CALCULATION OF INDIUM LATTICE-DYNAMICS  
FIZIKA METALLOV I METALLOVEDENIE 49(6), 1127-1133 (1980)
399. CHULKOV, E.V.; PSAKH'E, S.G.; ZHOROVKOV, M.F.; PANIN, V.E..  
PSEUDOPOTENTIAL COMPUTATION OF THE LATTICE DYNAMICS OF INDIUM  
FIZIKA METALLOV I METALLOVEDENIE 49(6), 1127 (1980)
400. PSAKHE, SG; CHULKOV, EV; ZHOROVKOV, MF.  
CALCULATION OF THE PHONON-SPECTRUM OF THALLIUM  
IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENII FIZIKA (8), 122 (1979)