

AUTHOR INDEX

NANOMECHANICS SCIENCE and TECHNOLOGY An International Journal

VOLUME 8

- A**
- Abuzin, Yu., 211
Agapovichev, A.V., 323
Aleksenko, V.O., 85
Ali, K., 67
Ashraf, M., 67
Avanesyan, V.P., 309
- B**
- Babaytsev, A.V., 359
Barinov, S.V., 7, 27
Bataev, V.A., 203
Bazhenov, V.G., 243
Buketov, A.V., 41
Burlov, A.S., 309
Bychkov, A.N., 7
- C**
- Chitra, S.R., 95
- D**
- Deniskin, Yu.I., 7
Dolbin, I.V., 123, 193
Dzhardimalieva, G.I., 7, 27, 331
- F**
- Fedotov, A.Yu., 167
Filippov, A.A., 55
Fomin, V.M., 55
- G**
- Gayathri, V., 95
Golubeva, N.D., 331
- Gorbachev, V.I., 367
- I**
- Iqbal, M.F., 67
Ivanova, L.R., 85
Izza, D., 223
- K**
- Kaminsky, O.I., 231
Karashaev, M., 211
Karnet, Yu.N., 123, 193
Khimich, M.A., 203
Knerelman, E.I., 27
Kokareva, V.V., 323
Kolesnikova, A.M., 27
Kondratev, N.S., 133, 243
Korchagin, M.A., 203
Kornienko, L.A., 85
Koshoridze, S.I., 1
Kovalevskaya, Zh.G., 203
Kozlov, G.V., 123, 193
Kyarimov, R.R., 323
Kydralieva, K.A., 7, 27
- L**
- Levin, Yu.K., 1
Lurie, S.A., 347
- M**
- Malikov, A.G., 55
- N**
- Naderi Beni, M., 261
Niazi, S., 261

	O		
Orishich, A.M., 55		Shershnev, V.A., 331	
	P	Shil'ko, S.V., 85	
Panin, S.V., 85		Shveykin, A.I., 133	
Petrova, L.A., 27		Sitnikov, S.A., 347	
Pleskachevsky, Yu.M., 85		Smelov, V.G., 323	
Polyakov, P.O., 347		Smetankin, S.O., 41	
Pomogailo, D.A., 27		Sokolov, E.A., 7	
Pomogailo, Dm.A., 27		Solyaev, Y.O., 347	
Popov, L.D., 331		Sotov, A.V., 323	
Prokofiev, M.V., 359			T
Puspitasari, P., 223		Trusov, P.V., 133, 243	
	Q		U
Qureshi, M.Z.A., 67		Uflyand, I.E., 7	
	R		V
Rabinskiy, L.N., 347, 359		Vakhrushev, A.V., 167	
Rassadkin, Yu.P., 309		Valeev, R.G., 167	
	S	Vlasov, A.N., 193	
Severyukhin, A.V., 167		Volkova, N.N., 331	
Shahzad, A., 211			Z
Sharkeev, Yu.P., 203		Zakharov, N.N., 309	
		Zavodinsky, V.G., 231	
		Zinchenko, D.O., 41	

NANOMECHANICS SCIENCE and TECHNOLOGY
An International Journal**VOLUME 8**

- additive technologies, 85
aggregation, 193
aluminum, 231
anisotropic materials, 133
antiscaling effect, 1
artificial, 223
averaging methods, 345
azomethine chelate complexes, 309
 β -radiation, 7
 β -alloy, 203
block copolymer, 85
boron carbide, 55
boron nitride, 193
carbon nanotubes, 123
Casson nanofluid, 67
ceramo-composite materials, 55
chemical processes, 287
coagulation, 1
coincidence site lattice, 243
combustion efficiency, 287
composite ceramic, 325
composite, 345
concentration of a solution, 1
constant wall temperature, 95
convective heat transfer coefficient, 95
copper nanoparticles, 27
critical nucleus, 1
crystal plasticity, 133, 243
crystalline structure, 167
crystallization, 1
defect and grain structure, 243
degree of crystallinity, 27
degree of reinforcement, 193
dielectric permeability, 7
discrete fibers, 41
duralium, 223
elasticity, 345
enclosure, 261
epitaxy, 167
epoxy composite, 41
equations with variable coefficients, 345
fibers, 325
filler, 41
finite deformations, 133
first-principles modeling, 231
friction coefficient, 41
heat and mass transfer, 67
helical coil, 95
hydrocarbon fuels, 287
in situ MMC formation, 211
inclination angle, 261
inhomogeneous medium, 345
integral formulas, 345
Kronberg–Wilson relation, 243
LAMMPS, 167
laser welding, 55
magnetic water treatment, 1
material structure, 301
mathematical model, 67
MEAM, 167
mechanical activation, 211

mechanical alloying, 203
mechanical properties, 325
mechanical tests, 337
medical implants, 203
metal powder, 301
metal-containing nanoparticles, 7
microstructure, 337
mixing of water, 287
modeling, 325
modulus of elasticity, 123
molecular dynamics, 167
multilevel models, 133
multistage aging, 223
nanocomposite, 85, 123, 193
nanocomposites, 309
nanoferrofluid, 95
nanofluid, 261
nanoscale critical nuclei, 1
nanosize thickness of reaction-ready
 Ni–Al contact, 211
nanostructure, 325
nanotribology, 231
natural convection, 261
Ni–Al composite granules, 211
nickel-containing nanoparticles, 309
nucleation, 1
Nusselt number, 95
percolation theory, 193
planetary ball milling, 211
polyethylene, 27
porosity, 325
power of laser emission, 301
precipitate, 223
properties, 223
radiation protection
 nanocomposite material, 7
recrystallization, 243
scanning speed, 301
selective laser melting, 203, 301
selective laser sintering, 55, 337
silicon nitride, 325
simulation, 167
stainless steel, 337
static friction, 231
straight tube, 95
strength, 193
stress transfer, 123
structure and properties
 of nanofilms, 167
structure, 123
supramolecular
 structure, 85
synthesizing, 211
thermal analysis, 309
thermal properties, 27
thermolysis, 7, 309
tungsten, 231
ultrahigh-molecular-weight
 polyethylene, 85
ultrasound, 1
wear intensity, 41
wear mechanism, 41
wear resistance, 85

NANOMECHANICS SCIENCE and TECHNOLOGY
An International Journal

VOLUME 8

ISSUE 1

Influence of Ultrasound and Magnetic Field on Nanosized Nuclei in Water Volume	1
<i>S.I. Koshoridze & Yu.K. Levin</i>	
Nanocomposite Materials Based on Metal-Containing Nanoparticles and Thermoplastic Polymer Matrices: Production and Properties	7
<i>A.N. Bychkov, E.A. Sokolov, S.V. Barinov, Yu.I. Deniskin, K.A. Kydralieva, I.E. Uflyand, & G.I. Dzhardimalieva</i>	
The Structure and Thermal Properties of Nanocomposites Based on Copper Nanoparticles in a Polyethylene Matrix	27
<i>Dm.A. Pomogailo, L.A. Petrova, D.A. Pomogailo, E.I. Knerelman, A.M. Kolesnikova, S.V. Barinov, K.A. Kydralieva, & G.I. Dzhardimalieva</i>	
Nanomodified Dispersed Particles- and Synthetic Fibers-Filled Epoxy Composite Materials for the Metal-Polymer Tribosystems of Transport Vehicles	41
<i>A.V. Buketov, D.O. Zinchenko, & S.O. Smetankin</i>	
Effect of Laser Radiation on the Structure of Metal-Ceramic Mixtures Based on Boron Carbide	55
<i>A.A. Filippov, V.M. Fomin, A.G. Malikov, & A.M. Orishich</i>	
Numerical Modeling of Non-Newtonian Fluid Flow between Porous Disks in the Presence of Nanoparticles	67
<i>M. Zubair Akbar Qureshi, Kashif Ali, M. Farooq Iqbal, & Muhammad Ashraf</i>	

ISSUE 2

- Extrudable UHMWPE-Based Composites: Prospects of Application in Additive Technologies** 85
S.V. Panin, L.A. Kornienko, V.O. Aleksenko, L.R. Ivanova, S.V. Shil'ko, & Yu.M. Pleskachevsky
- Heat Transfer Characteristics of Transformer Oil/DIW-Based Nickel-Substituted Magnesium Manganese Nanoferrofluid Flowing through Straight Tubes and Helical Coils** 95
S.R. Chitra & V. Gayathri
- The Effect of Nanofiller Structure on the Reinforcement Degree of Polymer/Carbon Nanotubes Nanocomposites** 123
G.V. Kozlov, Yu.N. Karnet, & I.V. Dolbin
- Multilevel Metal Models: Formulation for Large Displacement Gradients** 133
Peter V. Trusov, Alexey I. Shveykin, & Nikita S. Kondratev

ISSUE 3

- On the Structure and Properties of Nanofilms Deposited on Porous Aluminum Oxide Substrates** 167
A.V. Vakhrushev, A.Yu. Fedotov, A.V. Severyukhin, & R.G. Valeev
- The Effect of the Polymer Matrix Orientation on the Mechanical Properties of Polyvinyl Chloride/Boron Nitride Nanocomposites** 193
G.V. Kozlov, Yu.N. Karnet, I.V. Dolbin, & A.N. Vlasov
- Ti-Nb Powder Alloys in the Additive Technologies** 203
Zh.G. Kovalevskaya, Yu.P. Sharkeev, M.A. Khimich, M.A. Korchagin, & V.A. Bataev
- In Situ Fabrication of Ni_xAl_x Intermetallic Reinforcement Particles and of Al-Matrix Composite Reinforced with Those Particles** 211
A. Shahzad, Yu. Abuzin, & M. Karashaev
- Duralium Behavior in Multistage Artificial Aging Process** 223
Poppy Puspitasari & Dewi Izza
- Quantum-Mechanical Study of Friction in Nanocontacts** 231
V.G. Zavodinsky & O.I. Kaminsky

Influence of Grains Orientation on the Migration Velocity of High-Angle Boundaries	243
---	------------

N.S. Kondratev, P.V. Trusov, & V.G. Bazhenov

ISSUE 4

Numerical Study of the Effect of a Nanofluid with Nanoparticles of Nonuniform Size on Natural Convection in an Inclined Enclosure	261
--	------------

Sina Niazi & Mehrdad Naderi Beni

Experimental and Theoretical Study of the Processes of Combustion of Emulsions and Suspensions of Liquid and Solid Hydrocarbons with Water	309
---	------------

Yu.P. Rassadkin, V.P. Avanesyan, & N.N. Zakharov

Study of the Structure and Mechanical Characteristics of Samples Obtained by Selective Laser Melting Technology from VT6 Alloy Metal Powder	323
--	------------

A.V. Agapovichev, A.V. Sotov, V.V. Kokareva, V.G. Smelov, & R.R. Kyarimov

Nickel Chelate Complexes as a Single-Source Precursor of Nanocomposites	331
--	------------

G.I. Dzhardimalieva, N.N. Volkova, V.A. Shershnev, N.D. Golubeva, A.S. Burlov, & L.D. Popov

Mechanical Properties of Si_3N_4-Based Composite Ceramics with Nanosized Porosity	347
---	------------

S.A. Lurie, L.N. Rabinskiy, P.O. Polyakov, S.A. Sitnikov, & Y.O. Solyaev

Mechanical Properties and Microstructure of Stainless Steel Manufactured by Selective Laser Sintering	359
--	------------

A.V. Babaytsev, M.V. Prokofiev, & L.N. Rabinskiy

Averaging Equations of Mathematical Physics with Coefficients Dependent on Coordinates and Time	367
--	------------

V.I. Gorbachev

Index, Volume 8, 2017	377
------------------------------	------------