

International Conference on Construction, Architecture and Technosphere Safety (ICCATS 2019)

IOP Conference Series: Materials Science and Engineering
Volume 687

Chelyabinsk, Russia
25 - 27 September 2019

Part 1 of 3

ISBN: 978-1-7138-0979-1
ISSN: 1757-8981

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

This work is licensed under a Creative Commons Attribution 3.0 International Licence.
Licence details: <http://creativecommons.org/licenses/by/3.0/>.

No changes have been made to the content of these proceedings. There may be changes to pagination and minor adjustments for aesthetics.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

PART 1

INFLUENCE OF PROCESS PARAMETERS OF FIRING CLAY MATERIALS ON PHASE COMPOSITION AND STRUCTURE OF CERAMICS.....	1
<i>K D Vladimirov, P I Saraeva, T N Chernykh</i>	
ANALYSIS OF QUALITY OF CONSTRUCTION PRODUCTS BY EXAMPLE OF LLC "RTITS".....	7
<i>K V Zhegera, N A Petuhova, A V Gargala</i>	
APPLICATION OF CLUSTERIZATION ALGORITHMS FOR BUILDING MATERIALS CLASSIFICATION ON RADIOACTIVITY IN R.....	12
<i>P E Sokolov, S A Sentenberg</i>	
METHODOLOGICAL APPROACHES TO OPTIMIZATION OF GRAIN COMPOSITION OF HEAT-RESISTANT CONCRETE.....	20
<i>I V Stefanenko, E E Gnedash, T K Akchurin</i>	
RESULTS OF DETERMINATION OF THERMAL CONDUCTIVITY COEFFICIENT FOR BOARD MATERIALS FROM PLANT WASTE.....	26
<i>T N Vachnina, I V Susoeva, A A Titunin</i>	
PLANT FOR PRODUCTION OF WOOD POLYMERIC PAVING SLABS.....	31
<i>A A Fomin, V A Saldaev, D B Prosvirnikov</i>	
PHYSICS' IDENTIFICATION OF FORMATION PROCESS OF WOOD POLYMER HEAT INSULATION MATERIAL.....	36
<i>V A Saldaev, V G Gusev, A R Koryakin</i>	
ANALYSIS OF CONCRETE DEFORMATION DIAGRAM, RECEIVED BY DIFFERENT WAYS OF FORMATION, AND THEIR SEPARATE LAYERS.....	42
<i>S A Stel'makh, E M Shcherban', M G Kholodnyak</i>	
FEATURES OF CHANGE IN STRENGTH AND MODULUS OF ELASTICITY OF VARIOUS LAYERS OF VIBROCENTRIFUGED FIBER-REINFORCED CONCRETE COLUMNS OF ANNULAR SECTION.....	48
<i>E M Shcherban', S A Stel'makh, A Yu Prokopov</i>	
MODIFYING ADDITIVE FOR DRY BUILDING MIXTURES.....	54
<i>V I Loganina, M V Frolov</i>	
ON ISSUE OF EQUIVALENCE OF METHODS OF ACCELERATED AGING TO NATURAL BY EXAMPLE OF MODELING CLIMATE IMPACTS BY FREEZE-THAW CYCLES.....	60
<i>A V Erofeev, V A Mikhaylov</i>	
ASSESSMENT OF MAINTAINABILITY AND RESISTANCE TO EXTERNAL INFLUENCES OF PVC WATERPROOFING MEMBRANE SYSTEMS.....	66
<i>M A Zagorodnikova, S A Mamontov, V P Yartsev</i>	
FINE-AGGREGATE CONCRETE WITH POLYMER AND BASALT FIBER.....	73
<i>V A Perfilov</i>	

FIBRE-REINFORCED FOAM CONCRETE WITH HOLLOW GLASS MICROSPHERES	79
<i>V A Perfilov</i>	
EFFECTIVE NON-DESTRUCTIVE METHODS OF EVALUATING QUALITY OF EFFICIENT BUILDING MATERIALS	85
<i>V P Popov, D V Popov, A Yu Davidenko</i>	
THE EFFECT OF ALUMINOSILICATE MODIFYING ADDITIVE ON THE DEFORMATION PROPERTIES OF ADHESIVE DRY BUILDING MIXTURES	90
<i>K V Zhegera, I S Pyshkina</i>	
PETROGRAPHIC STUDY OF COARSE-GRAINED INCLUSIONS IN CLAY RAW MATERIALS	96
<i>E V Petrova, N G Chumachenko, M N Baranova</i>	
EFFECT OF COALESCENTS ON PROPERTIES OF PROTECTIVE STYRENE-ACRYLATE LATEX COATINGS OF ORIENTED PARTICLE CHIPBOARDS	101
<i>L Yu Matveeva, A V Yastrebinskaya</i>	
STRUCTURIZATION OF CEMENT SYSTEMS WITH NANODISPERSED SILICA STABILIZED WITH ACETATE IONS	106
<i>N P Lukutsova, S N Golovin</i>	
HEAT TREATMENT OF CONCRETE PRODUCTS AND STRUCTURES: ISSUES OF STRENGTH AND EFFICIENCIES	111
<i>I I Akulova, T V Shchukina, R A Sheps</i>	
LIGHTENING OF CERAMIC BRICKS BASED ON RED-BURNING CLAY	118
<i>I A Pavlova, M A Sapozhnikova, E P Farafontova</i>	
PRODUCTION TECHNOLOGY OF CERAMIC ROOF TILES BASED ON RAW MATERIALS OF URAL REGION	123
<i>I A Pavlova, S S Kutasheva, E P Farafontova</i>	
IMPACT OF DESIGN DECISIONS ON QUALITY OF HIGHWAYS	128
<i>A T Pimenov</i>	
STRUCTURAL AND THERMAL INSULATION PRODUCTS BASED ON VEGETABLE RAW MATERIALS	134
<i>O E Smirnova, A P Pichugin</i>	
EFFECTIVE WAYS TO REDUCE LEACHING AND FORMATION OF EFFLORESCENCE ON STRUCTURES	140
<i>V S Rudnov, V A Belyakov</i>	
OIL-TREATED GRAVEL ROAD PAVEMENTS	146
<i>G Vasilovskaya, A Yakshina, E Yanaev</i>	
POROUS FILLER FROM FOAM-ZEOLITE AND LIGHT CONCRETES BASED ON IT FOR CONDITIONS OF THE ARCTIC AND THE NORTH	153
<i>A E Mestnikov, V I Fedorov</i>	
STRUCTURE-FORMING ROLE AND PROPERTIES OF PHOSPHOGYPSUM IN UNBURNED TECHNOLOGY OF WALL MATERIALS AND RARE-EARTH METALS CONCENTRATE SIMULTANEOUS PRODUCTION	158
<i>S N Zolotukhin, O B Kukina, D E Barabash</i>	

INFLUENCE OF SILICA-CONTAINING MATERIALS SURFACE PROPERTIES ON CONCRETE STRUCTURING PROCESSES	164
<i>V V Yadykina, V A Grichanikov, A E Akimov</i>	
ULTRA-DISPERSE MODIFYING ZEOLITE-BASED ADDITIVE FOR GYPSUM CONCRETES	170
<i>A D Egorova, K E Filippova</i>	
STUDY OF MICROMYCETE DESTRUCTIVE POWER IN GYPSUM AND POLYMERIC BINDING COMPOSITE CONSTRUCTION MATERIALS	176
<i>L Matveeva, V Pakhtinov, Yu Tikhonov</i>	
TO ISSUE OF STUDYING MECHANISM OF INCREASING STRENGTH OF POROUS CERAMIC CROCK	182
<i>A R Mavlyuberdinov, I Kh Gaynutdinov, Yu V Evstigneeva</i>	
HEAVY CONCRETE WITH MINERAL ADDITIVE TRIPOLI	188
<i>N P Lukutsova, S N Golovin, P A Artamonov</i>	
SYNTHESIS OF HIGH ALUMINA CEMENT BASED ON METALLURGY WASTES	194
<i>Yu Krivoborodov, S Samchenko</i>	
DETERMINING SERVICE LIFE OF NON-BALLAST TRACK BASED ON CALCULATION AND TEST	201
<i>A V Savin, V V Korolev, I V Shishkina</i>	
INFLUENCE OF HIGH-FREQUENCY CYCLIC LOADING ON MECHANICAL AND STRUCTURAL CHARACTERISTICS OF RAIL STEEL UNDER EXTREME CONDITIONS	207
<i>A A Loktev, V V Korolev, E A Gridasova</i>	
CALCULATION OF ROAD CLOTHES BY ELASTIC DEFLECTION CRITERIA TAKING INTO ACCOUNT DAMAGE TO ASPHALT CONCRETE	213
<i>V V Chusov, N P Aleksandrova, V F Ignatov</i>	
COMBINED ROASTING OF RAW MATERIALS MODIFIED BY ADDITIVES- INTENSIFIERS IN FORM OF LOW HUMIDITY SLUDGE	220
<i>G F Averina, V A Koshelev, L Y Kramar</i>	
IMPROVING CRACK RESISTANCE OF CONCRETE WHEN USING EXPANDING CEMENTS	225
<i>S Samchenko, Yu Krivoborodov</i>	
STUDY OF HIGH-STRENGTH STEEL FIBER CONCRETE STRENGTH CHARACTERISTICS UNDER ELEVATED TEMPERATURES USING MATHEMATICAL MODELLING METHODS	231
<i>E V Konopatskiy, S N Mashtaler, A A Bezdityi</i>	
APPLICATION OF OIL-PRODUCTS-CONTAINING WATER TREATMENT SLUDGE IN WALL CERAMICS PRODUCTION	239
<i>I V Starostina, R G Shevtsova, Yu L Starostina</i>	
LIME SLAG BINDING AGENT FOR ROAD CONCRETE	247
<i>K M Voronin, M B Permyakov, A M Davydova</i>	
METHOD OF DETERMINING ELECTROTECHNICAL CHARACTERISTICS OF CONCRETE	253
<i>S N Pogorelov, G S Semenyak, A O Kolmogorova</i>	
COMPUTER SIMULATION OF SPECIAL TOMOGRAPHIC DEFECTOSCOPY	258
<i>S M Zerkal, N P Kislenko, V Yu Kornatskiy</i>	

MODIFYING NON-AUTOCLAVED FOAMED CONCRETE TECHNOLOGY ON THE MAGNESIA CEMENT WITH CRYSTAL STARTER SEED INFUSION	263
<i>G F Averina, R A Zhivtcova, O I Kovaleva</i>	
COMPUTER TECHNOLOGY OF DESIGNING OF OPTIMUM ROAD CONSTRUCTIONS MADE OF LOCAL MATERIALS	268
<i>S V Aleksikov, A I Leskin, D I Gofman</i>	
WALL PANELS FOR AGRICULTURAL AND INDUSTRIAL BUILDINGS	275
<i>N I Gorin, S A Ryabchun, O G Kulik</i>	
STUDY OF STRENGTH CHARACTERISTICS OF EARTHEN CLOTH OF ROADS IN SOUTH OF RUSSIA	281
<i>S V Aleksikov, A I Leskin, D I Gofman</i>	
CALCULATION OF CIRCULAR PLATES WITH ASSUMING SHEAR DEFORMATIONS	286
<i>Yu Ya Tyukalov</i>	
INTERRELATION OF RIGIDNESS OF TRIANGULAR CROSS-SECTIONS UNDER BAR TORSION WITH CONFORMAL RADII RELATION	293
<i>V I Korobko, A V Korobko, J E Lygina</i>	
EXPERIMENTAL DETERMINATION OF YIELD IN BEAM-TO-COLUMN FLANGE CONNECTIONS	300
<i>M P Son</i>	
POSSIBILITY OF USING SUPER-THIN LIQUID THERMAL INSULATION FOR PROTECTION OF STEEL BEAMS EMBEDDED IN BRICK WALL EXTERIOR UNDER BUILDING RECONSTRUCTION	306
<i>V G Polyakov, O G Chesnokova, T F Cherednichenko</i>	
TIME ANALYSIS OF DYNAMIC RESPONSE OF SPATIAL FRAME BUILDING UNDER ACTION OF SEISMIC FORCES	312
<i>L M Artemyeva, A N Potapov, A V Razzhivina</i>	
GEOMETRIC RIGIDITY OF TORSION OF THIN-WALLED PIPES: THEORY AND EXPERIMENT	318
<i>A V Korobko, N G Kalashnikova, V O Tyurin</i>	
FATIGUE BEHAVIOR OF CONCRETE IN CYCLIC LOW-TEMPERATURE IMPACTS	325
<i>B I Pinus, M P Kalashnikov</i>	
NEURAL NETWORK MODELING OF CONCRETE BOND STRENGTH TO REINFORCEMENT	331
<i>V P Yartsev, A N Nikol'yukin, A O Korneeva</i>	
ON POSSIBILITY OF LOCAL SUPPRESSION OF NATURAL VIBRATIONS OF ELASTIC STRUCTURES UNDER SHOCK EFFECTS	337
<i>V I Sobolev, E V Zenkov</i>	
ENERGY EFFICIENT BUILDING FOR ARCTIC REGIONS	343
<i>I S Inzhutov, V I Zhadanov, P P Melnikov</i>	
LOW-CYCLE FATIGUE OF CONCRETE WITH ALTERNATING LOADS	349
<i>B I Pinus, A S Kustov</i>	

STRENGTH AND STIFFNESS OF WOOD STRUCTURES FOR COMPOUNDS OF GANG NAIL PLATE "STEELCAP"	355
<i>S A Isupov, A B Chaganov</i>	
COMPRESSED TUBE-CONCRETE ELEMENTS WITH THE HIGH-STRENGTH COMPRESSION CORE AND WITH FIBREGLASS SHELL	362
<i>A L Krishan, M Yu Narkevich, A I Sagadatov</i>	
PROGRAM IMPLEMENTATION OF METHODOLOGY FOR CALCULATING AND ESTIMATING RESIDUAL LIFE OF FRAME OF SINGLE-STOREY INDUSTRIAL BUILDING	367
<i>T Zolina</i>	
DETERMINATION OF RESISTANCE TO RADON ENTRY OF UNDERGROUND WALLING AT STAGE OF CONSTRUCTION DESIGN.....	374
<i>N V Bakaeva, A V Kalaydo</i>	
RESEARCH OF STRESSED-STATE STIFFENED HOLLOW STRENGTHENED CONCRETE SLABS IN CRACKED CONDITION	379
<i>A S Vasilyev</i>	
SUPPORTING STRUCTURES OF MACHINE-BUILDING ENTERPRISES OF 1920-1930.....	385
<i>N A Buzalo, A G Kozhihov, N G Tsaritova</i>	
ON MICRO-LEVEL VULNERABILITY OF CONCRETE SURFACE LAYER IN PROCESS OF CRYSTALLIZATION OF HYDRATING PORTLAND CEMENT AND UPON MECHANICAL LOAD.....	390
<i>F Kh Akhmetzyanov, O V Radaykin, R A Ibragimov</i>	
IMPACT OF WELD SEAMS AND CONNECTED ELEMENTS PARAMETERS ON STRESS CONCENTRATION	395
<i>A N Shuvalov, O V Emel'yanov, M G Kovalev</i>	
INVESTIGATION OF GLUED IN BARS STRENGTH AND DEFORMABILITY INDEXES WITHIN FRAMEWORK OF RESEARCH OF WOOD REINFORCEMENT WITH CABLE REINFORCEMENT.....	403
<i>A A Koscheev, M V Lukin, S I Roshchina</i>	
MODELLING AND NUMERICAL SOLUTION OF PROBLEMS OF STRUCTURAL MECHANICS WITH UNILATERAL CONSTRAINTS AND FRICTION.....	410
<i>A A Lukashevich, N K Lukashevich</i>	
ON POTENTIALITY AND PRACTICABILITY OF INSTALLING FLOORING SUSPENDED IN GEODESIC DOMES BY MEANS OF CABLE SYSTEM.....	417
<i>A Romanovich, Y Kleshcunov, A Vlasov</i>	
CALCULATION FOR STABILITY OF CENTRALLY COMPRESSED RODS OF STEERED STIFFNESS IN EXISTENCE OF LINEARLY DEFORMABLE CONNECTIONS	425
<i>G I Grebeniuk, N A Liuft, A V Nikolskii</i>	
NUMERICAL SIMULATION IN DIAGRAMS FOR CONCRETE DEFORMATION IN COMPUTATIONS OF STRENGTH OF REINFORCED CONCRETE ELEMENTS IN DEFORMATION MODEL.....	433
<i>V A Eryshev</i>	
NOTES FOR CALCULATED RESISTANCE TO TENSION FOR LAMINATED WOOD.....	439
<i>B V Labudin, E V Popov, T A Nikitina</i>	

TRANSFORMABLE STRUCTURES.....	445
<i>L Y Gnedina, V V Dolgusheva, V V Danko</i>	
TIME OF DYNAMIC IMPACT TO ELEMENTS OF RC FRAME AT COLUMN BUCKLING	452
<i>N V Fedorova, S Yu Savin</i>	
STRENGTH AND DEFORMATION PROPERTY ENHANCEMENT OF COMPRESSED STEEL TUBE-CONCRETE ELEMENTS USING SUPER CONCRETE AND THIN-SHELL STRUCTURE.....	458
<i>M Yu Narkevich, A I Sagadatov</i>	
STUDY ON CHARACTERISTICS OF FATIGUE STRENGTH OF ARALL COMPOSITE IN CONSTRUCTIVE ELEMENTS	464
<i>L Adegova, V Frolova, S Losev</i>	
INFLUENCE OF PRE-STRESSING OVER PARAMETERS OF DIAGRAM OF STATIC- DYNAMIC DEFORMATION OF RC ELEMENTS	470
<i>N V Fedorova, T A Iliushchenko</i>	
BEHAVIOR OF COMPRESSED CONCRETE IN A GLASS FIBER-REINFORCED SHELL.....	476
<i>A L Krishan, E P Chernysova, M A Astafyeva</i>	
RESEARCH ON PROBLEMS OF PANEL BUILDINGS	482
<i>A R Mavlyuberdinov, R N Mukminov</i>	
MODELLING FRAMEWORK JOINTS IN ANSYS SOFTWARE COMPLEX.....	488
<i>N A Buzalo, A S Alexeeva, B A Chernykhovskiy</i>	
CONSTRUCTION OF DISCRETE ANALOGS OF DIFFERENTIAL EQUATIONS FOR BENDING OF PLATES AND SHELLS WITH DISCONTINUOUS PARAMETERS BASED ON SPLINE APPROXIMATION METHOD.....	495
<i>S Yu Katerinina, G V Voronkova, S S Rekunov</i>	
STRENGTHENING BRIDGE SPANS BY COMPOSITE MATERIALS	501
<i>A V Makarov, S S Rekunov</i>	
EXPERIMENTAL INVESTIGATIONS OF COMPOSITE WOODEN BEAMS WITH LOCAL WOOD MODIFICATION	507
<i>A S Gribanov, V I Rimshin, S I Roshchina</i>	
FACTORS DETERMINING CHARACTERISTICS OF CRACK RESISTANCE OF CONCRETE STRUCTURES	513
<i>A A Varlamov, A M Davydova, V B Gavrilov</i>	
STABILITY OF COMPRESSED SHEATHINGS OF WOOD COMPOSITE PLATE-RIBBED STRUCTURES	519
<i>B V Labudin, E V Popov, V V Sopilov</i>	
EARTHQUAKE RESISTANCE OF BUILDINGS WITH SUSPENDED STRUCTURES.....	527
<i>T A Belash</i>	
DETERMINATION OF STRESSES IN TRUSS RODS: NUMERICAL AND PHYSICAL EXPERIMENT	532
<i>T S Kiychenko, M V Tabanyukhova, N V Kharinova</i>	
NUMERICAL MODELLING OF THE REINFORCED CONCRETE BEAM SHEAR FAILURE.....	538
<i>A Budarin, V Alekhin, L Avdonina</i>	

USE OF MONITORING SYSTEM IN EKATERINBURG	545
<i>L Avdonina, V Alekhin, E Shipulin</i>	
PHASE COMPOSITION OF CEMENT BRICK AFTER DIFFERENT TIME OF LOW TEMPERATURE CURING	552
<i>A I Gnyrya, Yu A Abzaev, S V Korobkov</i>	
USE OF MODERN TECHNOLOGY OF INFORMATION MODELING IN CAPITAL CONSTRUCTION OBJECT LIFE CYCLE MANAGEMENT	559
<i>T Maleeva, L Selyutina, N Frolova</i>	
TOOLS DEVELOPMENT FOR ESTIMATED COST MANAGEMENT OF CONSTRUCTION AND ASSEMBLY WORKS	564
<i>K A Gureev, U V Aftakhova, V S Gladkikh</i>	
DESIGNING OF ORGANIZATIONAL AND TECHNOLOGICAL SOLUTIONS FOR CONSTRUCTION IN CONSTRAINED URBAN ENVIRONMENTS	570
<i>S A Chebanova, V G Polyakov, A V Azarov</i>	
ACTUAL ASPECTS OF MODELING METHOD APPLICATION IN ORGANIZATION OF CONSTRUCTION MANAGEMENT	575
<i>E Pesotskaya, L Selyutina, L Egorova</i>	
EXPERIMENTAL STUDIES OF PNEUMATIC IMPULSE BOOSTER WHEN UNLOADING CEMENT FROM METAL TANKS	580
<i>E E Burak, M N Zherlykina, Y A Vorobyeva</i>	
INNOVATIVE ASSEMBLY LINE FOR BUILDING AND MAJOR REPAIR OF MAIN PIPELINE	586
<i>A M Akhmedov</i>	

PART 2

DESIGN OF ORGANIZATIONAL AND INDUSTRIAL RELATIONS IN THE RENOVATION OF URBAN AREAS	592
<i>D Topchiy, A Lapidus</i>	
PSYCHOLOGICAL SUPPORT OF FLY-IN/FLY-OUT LABOUR FOR CONSTRUCTION COMPANIES WORKING IN FAR NORTH	598
<i>M Berseneva, G Vasilovskaya, E Danilovich</i>	
SOME ASPECTS OF CONSTRUCTION INDUSTRY DEVELOPMENT IN 2018	605
<i>V V Peshkov</i>	
FEATURES OF ESTIMATION OF INTANGIBLE RESOURCES OF INVESTMENT AND CONSTRUCTION ACTIVITY IN CYCLIC DYNAMIC	611
<i>A V Peshkov</i>	
TARGET FOCUSING OF INNOVATION ACTIVITY IN BUILDING CONSTRUCTION	617
<i>M V Matveeva</i>	
PERFECTING TECHNOLOGY OF WINTER CONCRETING OF CAST-IN-SITU COLUMNS	623
<i>D G Imaykin, R A Ibragimov, Yu V Evstigneeva</i>	

DEVELOPMENT OF NEW TOOL JOINT FOR MODULAR SYSTEMS MADE OF CELLULAR POLYCARBONATE	628
<i>S G Abramyana, V G Polyakov, A V Grunin</i>	
ON THE COMPETITIVENESS OF A CONSTRUCTION PROJECT	634
<i>L A Filimonova, N K Skvortsova</i>	
EMERGENCY VENTILATION INDUSTRIAL PREMISES OF CHEMICAL INDUSTRY ENTERPRISES	641
<i>M N Zherlykina, M S Kononova, Y A Vorob'eva</i>	
TO ASSESSMENT OF HEAT SAVING IN AUTOMATION OF BUILDINGS HEATING SYSTEMS	647
<i>V.I. Panferov, S.V. Panferov</i>	
SELECTION OF WELL SCREEN PARAMETERS AS ASPECT OF WATER WELL DESIGN	653
<i>A A Akulshin, V I Shcherbakov, A S Uchaev</i>	
EXPERIENCE OF RECONSTRUCTING DEFERRIZATION STATION.....	659
<i>O Govorov, O Zubareva, V Govorov</i>	
MODELING AND STUDYING BASIC PARAMETERS OF TANK SETS IN COMBINED REGASIFICATION	664
<i>N N Osipova, S S Kuznezov, A V Rulev</i>	
COMPARING PIPELINES MADE OF DIFFERENT MATERIALS FOR REPLACEMENT OF OLD ON-SITE PIPELINES OF KINEL PUMPING-FILTRATION PLANT.....	669
<i>P A Gorshkalev, M D Chernosvitov, D S Nikitina</i>	
DETERMINATION OF DESIGN LAYER OF RAINFALL FOR DESIGN OF TREATMENT FACILITIES OF SURFACE RUNOFF	677
<i>E D Palagin, M A Gridneva, P G Bykova</i>	
PURIFYING WASTEWATER FROM DAIRY PLANT	683
<i>A K Strelkov, S Yu Teplyh, A O Bystranova</i>	
STUDY OF MUTUAL WORK OF COANDA CHANNELS IN LOCAL VENTILATION SYSTEMS.....	689
<i>V M Kireev, A B Goltsov, A I Alifanova</i>	
COMPACT GROUNDWATER TREATMENT UNITS.....	695
<i>Zh Govorova, V Semenovikh, V Medvedeva</i>	
MODELLING AND OPTIMIZING ENGINEERING NETWORK SYSTEMS	700
<i>I Ya Lvovich, A P Preobrazhenskiy, O N Choporov</i>	
USE OF COMPRESSED GAS HEAT UTILIZERS IN GAS-COMPRESSOR UNITS	707
<i>O N Medvedeva, S I Astashev</i>	
STUDY OF FACTORS AFFECTING RELIABILITY AND EFFICIENCY OF HEAT SUPPLY SYSTEM	714
<i>E A Biryuzova</i>	
STUDY OF AERODYNAMICS OF STREAM FLOW IN SERVER ROOMS USING NUMERICAL MODELING	720
<i>G N Trubitsyna, M M Surovtsov, V S Indykov</i>	

AUTOMATED DAMPING TANK OF SEWAGE PUMPING STATIONS.....	726
<i>D V Skibo, M Y Tolstoy, K I Chizhik</i>	
TREATMENT OF WASTE AND DRAINAGE WATER BY BIOSORPTION METHOD IN VORONEZH REGION.....	733
<i>A A Akulshin, V I Shcherbakov, B M Kulmedov</i>	
OPTIMAL DESIGN OF FOUNDATIONS BY MEANS OF NONLINEAR CALCULATION METHODS.....	739
<i>I Yu Dezhina</i>	
FORECAST OF SETTLEMENT OF SINGLE PILE BASED ON HEREDITARY CREEP	744
<i>E N Sychkina</i>	
VACUUM CONSOLIDATION FOR CONSTRUCTION OF MOTOR ROAD EMBANKMENTS IN PEAT SOIL.....	750
<i>A Nikitin</i>	
ASSESSMENT OF OPERATING ENVIRONMENT OF CONCRETE LINING OF SEWAGE COLLECTOR TUNNELS	755
<i>E Yu Kulikova</i>	
SEQUENCE OF CALCULATION OF ANISOTROPIC SOIL FOUNDATIONS ON DEFORMATION.....	762
<i>O A Korobova, L A Maksimenko, I Yu Solovyanova</i>	
PARAMETERS OF STRENGTH AND DEFORMABILITY OF ASH AND SLAG MIXTURE OF EKIBASTUZ COALS.....	770
<i>G V Dolgih, V F Ignatov, V A Utkin</i>	
COMPARATIVE ANALYSIS OF STABILITY OF EMBANKMENT ON THE BASIS OF TORSIONAL RING SHEAR TEST	777
<i>E S Sobolev, D S Morev</i>	
EXPERIENCE IN DETERMINING VISCOSITY OF SOIL ON THE BASIS OF EXPERIMENTAL STUDIES.....	783
<i>A Z Ter-Martirosyan, L Yu Ermoshina</i>	
CONSIDERATION OF PARAMETERS OF UNDERGROUND STRUCTURES INTERACTION WITH SOILS WHEN SOLVING GEOTECHNICAL PROBLEMS.....	788
<i>A Z Ter-Martirosyan, V V Sidorov, A S Almakaeva</i>	
APPLICATION OF NUMERICAL METHODS IN RESEARCH OF DEFORMATION ANISOTROPY SOIL.....	794
<i>O A Korobova, L A Maksimenko, I Yu Solovyanova</i>	
RESEARCH METHODS FOR SEISMOACOUSTIC MONITORING OF LARGE UNDERGROUND FACILITIES	803
<i>S K Davlatshoev, T A Yatimov, U A Yatimov</i>	
STATISTICAL ANALYSIS OF FIELD MEASUREMENTS DURING THE EXCAVATION OF MINE WORKINGS AND THEIR ASSESSMENT.....	809
<i>A J Yatimov, T A Yatimov, U A Yatimov</i>	
INVESTIGATION OF POSSIBILITIES OF AUTOMATED DESIGN OF BOLTED CONNECTIONS IN NANOCAD EDITOR FOR BUILDING STRUCTURES	817
<i>N S Kuvshinov</i>	

INFLUENCE OF DATE OF COMPUTATION OF INSOLATION DURATION ON ACCEPTABLE HEIGHT AND POSITION OF BUILDINGS	822
<i>A L Kheifetc (Kheyfets)</i>	
DEVELOPING PROFESSIONAL COMPETENCES IN TRAINING CONSTRUCTION ENGINEERING SPECIALISTS.....	829
<i>E P Dubovikova</i>	
MOUNTING CLAMPS OF BUILDING CONSTRUCTIONS	834
<i>A I Slabinskiy, S G Lebedev</i>	
GEOMETRIC MODELLING OF BUILDING FORMS USING BIM, VR, AR-TECHNOLOGY	840
<i>Z O Tretyakova, M V Voronina, V A Merkulova</i>	
GOLDEN SECTION BASED METHOD OF 3D MODELING OF ICOSAHEDRON AND DODECAHEDRON IN CONSTRUCTION DESIGN	847
<i>V N Vasilieva</i>	
METHODS OF FORMATION OF RECEPTOR (VOXEL) GEOMETRIC MODELS FOR AUTOMATED LAYOUT TASKS.....	853
<i>Ye Win Tun, L V Markin</i>	
NEW FORMS OF SYNTHESIS IN ARCHITECTURAL AND LANDSCAPE DESIGN	861
<i>O V Davydova</i>	
ARCHITECTURAL EDUCATION: TRANSLATING INTERNAL POTENTIAL INTO EXTERNAL ACTUAL.....	867
<i>O V Davydova</i>	
ECOLOGICAL ARCHITECTURE OF SETTLEMENTS AS BASIS FOR IMPROVING LIFE QUALITY	873
<i>S G Shabiev, M G Danilchuk</i>	
IMPROVEMENT ISSUES OF ARCHITECTURAL SOLUTIONS OF BUILDINGS AND STRUCTURES FOR BOTANICAL GARDENS IN CONTEXT OF GREEN ECONOMICAL AIMS.....	878
<i>T Ya Vavilova</i>	
COMFORT OF AFFORDABLE HOUSING IN RUSSIA. ANALYSIS OF CURRENT APPROACHES IN ARCHITECTURAL THEORY	884
<i>T Ya Vavilova</i>	
TERRITORIAL TRANSFORMATIONS OF URBANIZED SYSTEMS	890
<i>O Rastyapina</i>	
ROTUNDA CHURCH IN RUSSIA AS TYPOLOGICAL PHENOMENON.....	895
<i>O B Tereshina</i>	
SPECIFIC FEATURES OF COMMUNICATIVE ADVERTISING OF CONSTRUCTION GOODS	902
<i>O I Vorobyeva</i>	
QUANTITATIVE ASSESSMENT OF INFRASTRUCTURE FACILITIES AVAILABILITY IN BIOSPHERE-COMPATIBLE CITY FUNCTIONS IMPLEMENTATION.....	907
<i>N V Bakaeva, I V Chernyaeva</i>	

PERMITTED USE OF LAND PLOTS AS MOST IMPORTANT LEGAL CHARACTERISTIC OF REAL ESTATE UNIT	915
<i>M D Voronina</i>	
APPROACHES TO DESIGN OF NAVIGATION SYSTEMS IN PUBLIC INSTITUTIONS.....	921
<i>L Surina</i>	
INCREASING HABITAT SUSTAINABILITY IN RESIDENTIAL AREAS OF THE FIRST MASS SERIES.....	926
<i>S V Korniyenko, O P Kozlova, T N Astafurova</i>	
CONCEPT OF INNOVATION CENTER IN VORONEZH REGION, TAKING INTO ACCOUNT PRINCIPLES OF "SMART REGION".....	932
<i>Y A Vorob'eva, O V Kuripta, E E Burak</i>	
ROLE OF CULTURAL LANDSCAPE IN FORMATION OF URBAN IDENTITY BY EXAMPLE OF URAL TOWNS	938
<i>A Gushchin, M Divakova</i>	
DYNAMIC ARCHITECTURE. INTERACTION WITH CITY, NATURE, MAN	944
<i>T V Belyaeva</i>	
FRACTAL PROPERTIES OF SETTLEMENT SYSTEM AS FACTOR OF ITS SUSTAINABILITY: URAL IN THE 18TH–20TH CENTURIES	950
<i>T J Bystrova</i>	
INTEGRATION OF INDUSTRIAL TERRITORIES INTO THE URBAN ENVIRONMENT.....	958
<i>N V Korosteleva, OA Rastyapina</i>	
ARCHITECTURE AND PLANNING IN ARRANGEMENT OF BIONIC PIECES IN MODERN URBAN LANDSCAPE.....	965
<i>O O Smolina</i>	
PROTECTION OF PEDESTRIAN ZONES AND RESIDENTIAL AREAS FROM VEHICLE EMISSIONS BY TREES AND SHRUBBERY PLANTING TECHNIQUE	970
<i>V F Sidorenko, V V Balakin, A V Antyufeyev</i>	
AERATION MODE OF MAIN STREETS IN HIGH-DENSITY DEVELOPMENT	976
<i>V V Balakin, A V Antyufeyev, V F Sidorenko</i>	
MILLION-CITY SITE PLAN PROBLEMS (VORONEZH CASE)	985
<i>A N Gorbunova</i>	
DEVELOPMENT OF SANJIANLIANGLANG IN GUANGZHOU (CHINA) IN LATE THE 19TH – THE FIRST HALF OF THE 20TH CENTURY BY EXAMPLE OF COUNTY-LEVEL CITY KAIPING	995
<i>A A Kim</i>	
PLANNING TERRITORY AS CONTROL ELEMENT CITY DEVELOPMENT	1001
<i>M V Korosteleva, N V Korosteleva</i>	
PANEL LOW-RISE BUILDING WITH POSSIBILITY OF CHANGING INTERNAL AND EXTERNAL SPACE.....	1007
<i>V Yudin</i>	
LINEAR CITIES: CONTROVERSIES, CHALLENGES AND PROSPECTS	1013
<i>A V Antyufeev, O A Antyufeeva</i>	

THE FOUR FACTORS INFLUENCING MEDIA ARCHITECTURE.....	1019
<i>G A Ptichnikova, A V Antyufeev</i>	
MODERN APPROACHES TO PRESERVATION AND DEVELOPMENT OF HISTORICAL OBJECTS OF CULTURE.....	1025
<i>N A Teleshova</i>	
RENOVATION OF MASS RESIDENTIAL DEVELOPMENT IN LATE 1950S-EARLY 1970S IN ST. PETERSBURG: PROBLEMS AND PERSPECTIVES	1031
<i>Y S Yankovskaya, A G Vaytens</i>	
FEATURES OF LOCATION IN URBAN STRUCTURE OF BUILDINGS OF RUSSIAN- SOVIET CONSULATE IN HARBIN.....	1037
<i>T A Smolianinova</i>	
NATURAL MATERIALS IN SUSTAINABLE ARCHITECTURE BUILDING SYSTEM.....	1043
<i>S V Ilvitskaya, V A Lobkov, T V Lobkova</i>	
CREATIVE HERITAGE OF ARCHITECTS OF BLAGOVESHCHENSK CITY (THE SECOND HALF OF THE 19TH – THE EARLY 20TH CENTURY)	1048
<i>M E Bazilevich</i>	
"BRICK STYLE" IN CREATIVE WORK OF RUSSIAN FAR EAST ARCHITECTS (THE SECOND HALF OF THE 19TH - EARLY 20TH CENTURY).....	1054
<i>M E Bazilevich</i>	
COMPREHENSIVE ASSESSMENT OF TOURIST POTENTIAL OF BABUSHKIN STREET IN IRKUTSK.....	1060
<i>A I Kulakov, V S Shishkanov</i>	
PRESERVATION OF ORIGINAL APPEARANCE OF IRKUTSK.....	1067
<i>A I Kulakov, A U Ri</i>	
VARIABILITY OF APPROACHES TO ARBORSCULPTURES.....	1073
<i>O O Smolina</i>	
BIOPOSITIVE MATERIALS AND GREEN TECHNOLOGIES IN LOW-RISE ARCHITECTURE.....	1078
<i>T V Sheina, I D Gud'</i>	
METHODOLOGICAL ASPECT OF LANDSCAPE AND ECOLOGICAL RECONSTRUCTION OF GREEN RING AROUND VOLGOGRAD (STALINGRAD).....	1087
<i>N V Ivanova, I Y Podkovyrov, V K Sagomonyan</i>	
URBAN ECOLOGY FEATURES OF LARGE CITY DISTURBED TERRITORY DEVELOPMENT (CASE OF VOLGOGRAD).....	1092
<i>V V Prokopenko, O A Ganzha, O A Rastyapina</i>	
STUDYING IMPACT OF ON-RAMP FROM MULTI-LANE HIGHWAYS ON THE BASIS OF EXPERIMENTAL STUDIES OF TRAFFIC FLOWS	1098
<i>A V Kostsov</i>	
METHOD FOR MULTI-CRITERIA EVALUATION OF URBAN PARKS	1102
<i>V F Kasyanov, R V Silin</i>	

INFLUENCE OF SHAMANISM, TAOISM, BUDDHISM AND CONFUCIANISM ON DEVELOPMENT OF TRADITIONAL CHINESE GARDENS	1110
<i>D S Tceluiko</i>	
EARTH-SHELTERING EFFECT ON DWELLING IN COLD CLIMATE: SIMULATION- BASED AND THEORETICAL APPROACHES	1116
<i>D V Berezin</i>	
OVERHEATING IN RESIDENTIAL AREAS: ROLE OF REFLECTED SOLAR RADIATION	1122
<i>D V Berezin</i>	
COMFORTABLE ENVIRONMENT: ILLUSIONS AND REALITY OF "COLOR GENTRIFICATION"	1128
<i>O Ye Zheleznyak</i>	
M.A. GENENDLIS – FORGOTTEN DECORATOR (FROM HISTORY OF DEVELOPMENT OF FINE ART IN CITY OF KHABAROVSK 30-50S OF THE TWENTIETH CENTURY).....	1133
<i>E M Bazilevich</i>	
UNION OF LAND AND WATER	1139
<i>A F Krasnopolskii</i>	
REGULATING ARCHITECTURAL AND CIVIL ENGINEERING PROCESS IN RUSSIA IN THE 18TH – THE BEGINNING OF THE 20TH CENTURY	1150
<i>M Zolotareva</i>	
INNOVATIONS IN SOLVING CURRENT ISSUES IN ARCHITECTURAL AND SPATIAL CITY ENVIRONMENT	1157
<i>E V Khorokhova</i>	
ON STUDY AND ACCOUNTING OF GEOPHYSICAL FIELDS IN ARCHITECTURAL SPACE OF SACRAL PURPOSE.....	1162
<i>I L Pershina</i>	
ENERGY-EFFICIENT SOLUTIONS FOR BUILDINGS ON THERMAL DESIGN BASIS.....	1168
<i>T Apatenko, O Bezlyubchenko</i>	
DIGITAL CENSUS OF UPPER KAMA TOWNS ARCHITECTURAL AND URBAN ENVIRONMENT.....	1176
<i>A E Semina, S V Maximova</i>	
ISSUES AND PROSPECTS OF PLANNING OF TERRITORIES OF NEWLY CREATED TERRITORIAL COMMUNITIES (USING STAROSALTOVSKA UNIFIED TERRITORIAL COMMUNITY AS EXAMPLE).....	1183
<i>E Shyshkin, K Viatkin, S Romanenko</i>	

PART 3

CITIZENS' ROLE IN FORMATION OF URBAN ENVIRONMENT DESIGN.....	1189
<i>N L Antonova, E V Grunt</i>	
SYNERGETICS AS HEURISTIC BACKGROUND OF MODERN ARCHITECTURE AND URBANISM.....	1195
<i>M N Kokarevich, V G Lankin, V Y Voytsekhovskaya</i>	

ALGORITHM OF ALLOCATION OF TERRITORIES INCLUDED TO AGGLOMERATIONS	1201
<i>A N Pankeieva, K I Viatkin, A V Zavalnyi</i>	
VILLA GAMBERAIA COMPOSITIONAL FEATURES	1207
<i>V Dormidontova, A Belkin</i>	
PROBLEMS OF TRANSIT AREA INTERIOR SPACE OF RAILWAY STATIONS INCLUDING THOSE REFERRED TO MONUMENTS OF ARCHITECTURAL HERITAGE	1213
<i>A I Kulakov, Y V Krakovtseva</i>	
BASIC PRINCIPLES OF "GREEN" ARCHITECTURE IN FOREIGN REALIZATION EXPERIENCE	1220
<i>A V Merenkov, N S Akchurina, T M Matveeva</i>	
CONCEPT OF ORGANIZING AUTONOMOUS ARCHITECTURAL OBJECTS AS NEW PARADIGM OF HABITAT	1226
<i>N A Saprykina</i>	
TO ISSUE OF TERRITORY RENOVATION	1232
<i>L A Filimonova, Y G Skrigalovskaya, Y A Deviatkina</i>	
ON ISSUE OF JUSTIFICATION FOR IMPLEMENTATION OF CONSTRUCTION PROJECT OF SPORTS COMPLEX FOR RESIDENTIAL DISTRICT TURA IN CITY OF TYUMEN	1238
<i>A N Khait, A S Kovalyov</i>	
ARCHITECTURAL AND DESIGN APPROACHES TO CREATION OF COMFORTABLE URBAN ENVIRONMENT	1244
<i>M B Permyakov, T V Krasnova</i>	
ECOLOGICAL APPROACH TO ARCHITECTURAL DESIGN OF HIPPOLOGICAL CENTERS	1250
<i>I N Maltseva, N N Kaganovich</i>	
EDUCATIONAL BUILDING SAFETY	1256
<i>E R Polyantseva</i>	
APPLICATION OF BIONIC ARCHITECTURE METHODS AS FUTURE-ORIENTED APPROACH OF MODERN ARCHITECTURE DEVELOPMENT IN RUSSIA	1263
<i>Z Umorina</i>	
NUMERICAL SIMULATION OF WIND FLOW AROUND BUILDING COMPLEX WITH DIFFERENT SOFTWARE APPROACHES	1269
<i>V D Olenkov, I V Lazareva, A D Biryukov</i>	
COMPARATIVE RESEARCH ON SOCIO-ECONOMIC DEVELOPMENT OF RUSSIAN MEGACITIES	1276
<i>T Orlovskaya</i>	
ARCHITECTURAL PROCESS IN RUSSIA IN SECOND HALF OF THE 20TH - EARLY 21ST CENTURY	1282
<i>I V Tarasova, A V Shvets</i>	
DIFFERENTIATION OF RUSSIAN MEGACITIES BY LEVEL OF INVESTMENT IN COMPREHENSIVE RESIDENTIAL DEVELOPMENT	1287
<i>S Ershova, T Orlovskaya</i>	

"GREEN ARCHITECTURE" IN ASPECT OF ECOLOGIZATION OF BUILDINGS IN THE URBAN ENVIRONMENT	1293
<i>E A Dorozhkina</i>	
CONSTRUCTION – INDUSTRY WITH INCREASED AND UNCOMPENSATED OCCUPATIONAL RISK.....	1299
<i>L Guzikova</i>	
TECHNOLOGICAL PROBLEMS OF PROTECTION OF COASTAL URBAN AREAS	1306
<i>M Shubin</i>	
CRITERIA FOR RECONSTRUCTION OF URBAN ENVIRONMENT ON PRINCIPLES OF HARMONIZING NATURE, SOCIETY AND HUMAN BEING	1312
<i>S G Emelianov, N V Bakaeva, D P Zuleta</i>	
PERFORMANCE OF SURVEYING TO ASSESS MAN-MADE RISKS IN OPERATION OF INDUSTRIAL FACILITIES BY EXAMPLE OF VOLGOGRAD AGGLOMERATION.....	1320
<i>V N Anopin, T A Sabitova, S A Kalinovskiy</i>	
REDUCTION OF INDIVIDUAL CARCINOGENIC AND NON-CARCINOGENIC RISKS ON IMPACT AREA RESULTED FROM OPERATION OF CONSTRUCTION INDUSTRY ENTERPRISES	1326
<i>A N Lopanov, A V Yastrebinskaya, A S Edamenko</i>	
WORKING CONDITIONS OF HOUSING AND COMMUNAL SERVICES SYSTEM AND INNOVATIVE TECHNOLOGY TO MINIMIZE OCCUPATIONAL HAZARDS FOR PLUMBERS OF EMERGENCY REPAIR SERVICES	1332
<i>S S Timofeeva, D V Skibo</i>	
FEATURES OF MATERIAL COMPOSITION OF SLAG INCINERATION PLANTS	1339
<i>E V Kolodezhnaya, M S Garkavi, N G Novikova</i>	
RISK ACCEPTANCE CRITERIA FOR COMPLEX TECHNICAL SYSTEMS	1344
<i>Yu A Izvekov, E A Puzankova, I A Vakhrusheva</i>	
MATHEMATIC MODELLING OF RELIABILITY, SAFETY AND RISK INDICATORS RELATED TO EQUIPMENT ELEMENTS EXISTING AT IRON AND STEEL ENTERPRISE	1349
<i>Yu A Izvekov, O A Torshina</i>	
COMPARATIVE ANALYSIS OF FIRE RISKS IN COAL AND OIL AND GAS INDUSTRIES.....	1354
<i>N V Gorlenko, M A Murzin</i>	
SOURCES OF CARCINOGENIC RISKS FOR ATMOSPHERE OF IRKUTSK REGION CITIES.....	1360
<i>L I Belykh, K A Shaimanova</i>	
ASSESSMENT OF ENVIRONMENTAL DAMAGE TO ATMOSPHERIC AIR DURING DEVELOPMENT OF OIL AND GAS FIELDS.....	1366
<i>N V Gorlenko, S S Timofeeva</i>	
DUST LOAD IN SILICON PRODUCTION AND OCCUPATIONAL RISKS	1371
<i>M S Leonova, S S Timofeeva, M A Murzin</i>	
ECOLOGICAL HUMAN HEALTH RISK IN ALUMINUM PRODUCING AREAS OF BAIKAL REGION.....	1376
<i>S V Ivanova, I A Ryabchikova</i>	

INVESTIGATION OF CHRYSOTILE ASBESTOS DUST IN AIR OF WORKING ZONES AND ENVIRONMENT.....	1382
<i>R A Burkhanova, V N Azarov</i>	
MEASURES TO IMPROVE ENVIRONMENTAL SAFETY OF URBAN GAS STATIONS	1391
<i>N V Bakaeva, K V Garmonov, R A Sheps</i>	
CORROSION OF TUBING OF OIL FIELDS.....	1397
<i>A S Tyusenkov, O A Nasibullina</i>	
METHODOLOGY OF MOTOR TRANSPORT AIR POLLUTION MONITORING OF LARGE CITY TAKING INTO ACCOUNT RESIDENTIAL DEVELOPMENT TYPE.....	1403
<i>V F Sidorenko, A V Ignatyev, A A Abroskin</i>	
DETERMINING INFLUENCE OF NATURAL AND MAN-MADE FACTORS ON SAFE PERFORMANCE OF TRUNK PIPELINES	1409
<i>S G Abramyan</i>	
EVALUATION OF RESULTS OF CHANGES IN BACTERIAL STRAINS IN ECOSYSTEM OF LAKE BAIKAL	1414
<i>V A Verkhozina, E V Verkhozina, V V Verkhoturov</i>	
ENVIRONMENTAL AND ECONOMIC DAMAGE DURING THE OPERATION OF SLUDGE COLLECTORS	1419
<i>D Sh Sibgatulina, A R Khabibullina, E V Muraveva</i>	
INHIBITORY ANTICORROSIVE PROTECTION OF OILFIELD EQUIPMENT	1425
<i>A S Tyusenkov, O A Nasibullina</i>	
REDUCTION OF TECHNOLOGY RISK AT NPP DURING RADIOACTIVE WASTE MANAGEMENT	1431
<i>V I Pavlenko, R N Yastrebinsky, A A Karnauhov</i>	
CONSIDERING EMERGENCY HAZARDS IN CONSTRUCTION AND OPERATION OF INFRASTRUCTURES.....	1437
<i>E V Arefeva, E V Muraveva, T Yu Frose</i>	
REDUCING ENVIRONMENTAL LOAD OF ALUMINUM PRODUCTION BY SELECTING COKE-PITCH COMPOSITIONS.....	1442
<i>I O Doshlov, N P Kononov, K I Chizhik</i>	
FILTERING OF OUTSIDE AIR IN HVAC INLET PLENUMS IN URBAN ENVIRONMENT	1448
<i>N A Litvinova</i>	
IS IT SAFE TO TRANSPORT DANGEROUS GOODS BY ROAD? (ENVIRONMENTAL SAFETY ASSOCIATED WITH DANGEROUS GOODS TRANSPORTATION BY ROAD)	1453
<i>A V Kuzmin, T Yu Freze</i>	
ASSESSMENT OF RISK ASSOCIATED WITH DRINKING WATER WITH RESPECT TO INDICATORS OF OLFACTORY AND REFLEX EFFECT	1458
<i>T Yu Gumerov, L N Gorina, L Z Gabdukaeva</i>	
HOW LOCAL ENVIRONMENTAL RESTRICTIONS AFFECT ENVIRONMENTAL SITUATION IN URBAN SYSTEM.....	1465
<i>V Makarenko, T Pozdnyakova, I Revutskaya</i>	

ASSESSMENT OF PERSONAL AND BEHAVIORAL QUALITIES OF WORKERS IN SYSTEM OF INTERACTIVE INCIDENT FORECASTING AND OCCUPATIONAL SAFETY MANAGEMENT	1470
<i>E V Klimova, A Yu Semeykin, E A Nosatova</i>	
ASSESSMENT OF ENVIRONMENTAL RISK OF MUNICIPAL SOLID WASTE LANDFILL (BY EXAMPLE OF THE CITY OF BELGOROD)	1476
<i>N Yu Kiryushina, A Yu Semeykin, O N Sharapov</i>	
THE ISSUES OF SUSTAINABILITY OF HISTORICAL AND CULTURAL AREAS ASSOCIATED WITH THEIR PERIODIC UNDERFLOODING AND SOLUTIONS	1482
<i>E V Arefeva, E V Muraveva, E I Alekseeva</i>	
CONCEPT OF INTEGRATED MONITORING OF TERRITORIAL TECHNOSPHERE STATE.....	1488
<i>O Bezborodova</i>	
TECHNOSPHERE SAFETY OF WEST SIBERIAN REGION AND PROTECTION OF HUMAN HEALTH IN ASPECTS OF BIOGEOCHEMICAL LIVING CONDITIONS AND MAN-MADE DEVELOPMENT OF REGION	1495
<i>E V Zhilyakov, M S Monakhov, I Yu Tomus</i>	
ISSUES OF PROTECTION OF ATMOSPHERIC AIR AGAINST DUST POLLUTION IN PRODUCTION OF CONSTRUCTION MATERIALS.....	1501
<i>N M Sergina, S V Shurshikov, D V Lyga</i>	
ANALYSIS OF AIR POLLUTION AND NOISE ON LOW-SPEED STREETS.....	1506
<i>S V Maksimova, G M Batrakova</i>	
APPROACH TO MODELING THE SPREAD OF POLLUTANTS IN AIR BY THE EXAMPLE OF VOLGOGRAD.....	1512
<i>N M Rashevskiy, B Kh Sanzhapov</i>	
IMPACT OF TRAFFIC FLOWS ON ENVIRONMENTAL SITUATION IN RESORT CITIES.....	1518
<i>P A Sydyakin, E N Belaya, D V Shchitov</i>	
ANALYSIS OF EQUIPMENT LIFE CYCLE AT OIL REFINERY.....	1527
<i>K Y Kozhemyatov, Y A Bulauka</i>	
APPLICATION OF RISK-BASED APPROACH IN DESIGN OF WATER SUPPLY SYSTEMS.....	1533
<i>A I Yuhno, N K Plugotarenko</i>	
ASSESSMENT OF TERRITORIAL IMPACT OF INDUSTRIAL MERCURY POLLUTION AND PROPOSAL FOR ITS SOLUTION	1539
<i>V Yu Starostina</i>	
FUNCTIONAL ZONING OF URBAN AREAS WITH REGARD TO ENVIRONMENTAL QUALITY IS ONE OF WAYS TO CREATE MORE FAVOURABLE CONDITIONS FOR LIFE.....	1545
<i>M V Volkodaeva, O A Taranina, Ya A Volodina</i>	
PRESS-FIT JOINTS STUDY BY MULTIANGLE ULTRASONIC SOUNDING METHOD	1550
<i>V P Ivannikov, A V Kabakova, A Yu Chaykina</i>	
TRANSBOUNDARY AIR POLLUTION AND ITS EFFECTS ON VEGETATION	1557
<i>M V Ryabuhina, R A Maiski, R G Kalyakina</i>	

INFLUENCE OF DIFFERENT FORMS OF IRON ON THE MORPHOBIOLOGICAL INDICATORS OF PINUS SYLVESTRIS.....	1564
<i>R G Kalyakina, R A Maiski, M V Ryabukhina</i>	
USE OF OVERBURDEN AND ENCLOSING FORMATIONS GENERATED IN THE COURSE OF EXPLOITATION OF MINERAL DEPOSITS	1569
<i>V E Kononov, V A Pochechun, A I Semyachkov</i>	
ON THE RESULTS OF APPLYING FUZZY LOGIC IN THE ANALYSIS OF INDUSTRIAL INJURY RATES ASPECTS FOR THE MAGNESIUM SILICATE WASTE TREATMENT	1574
<i>B V Sevastyanov, R O Shadrin</i>	
CATEGORIZATION AND GRADATION OF HAZARDOUS ACTIONS OF INDUSTRIAL WORKERS: METHODOLOGICAL ASPECTS	1580
<i>D M Kostin, B V Sevastyanov, R O Shadrin</i>	
THE NEW PARADIGM OF AN ENVIRONMENTALLY-DRIVEN RESOURCE-SAVING TECHNOLOGIES FOR PROCESSING OF MINING.....	1585
<i>I V Shadrinova, O E Gorlova, V A Zhilina</i>	
QUALITATIVE COMPOSITION AND LOCAL PRETREATMENT OF DAIRY WASTEWATERS.....	1591
<i>E I Vialkova, O V Sidorenko, E S Glushchenko</i>	
TO SELECTION OF LOW-WEAR ANODE COATINGS BASED ON IRIIDIUM, RUTHENIUM, TITANIUM AND TANTALUM OXIDES FOR DIRECT ELECTROLYSIS OF NATURAL WATERS	1599
<i>I V Pchel'nikov, R V Fedotov, A Yu Cherkesov</i>	
REMOVAL OF ORGANIC MICROPOLLUTANTS FROM WATER BY SONOPHOTOLYTIC-ACTIVATED PERSULFATE PROCESS	1608
<i>S A Popova, G G Matafonova, V B Batoev</i>	
METHOD OF WASTEWATER TREATMENT FROM EMULSIFIED PETROLEUM PRODUCTS.....	1614
<i>Yu K Rubanov, N A Miroshnichenko, T V Kozlova</i>	
REDUCTION OF RADIOACTIVE CONTAMINATION OF SURFACE OF STEEL STRUCTURES OF CONTOUR NPP EQUIPMENT	1620
<i>R N Yastrebinsky, V I Pavlenko, A A Karnauhov</i>	
EVALUATING THE PATTERNS OF AIR BUBBLE RISE IN WATER-AIR MIXTURES USED IN NATURAL AND WASTE WATER TREATMENT PROCESSES	1625
<i>S Yu Andreev, I A Garkina, M I Yakhkind</i>	
STUDIES ON CONTACT INTERACTION OF MICA AND GLASS.....	1633
<i>S V Fedorova</i>	
PRACTICAL APPLICATION OF DIGITAL CONTROL METHODS IN ECOLOGICAL SYSTEMS.....	1639
<i>G N Akhobadze</i>	
REMOVAL OF RADIONUCLIDES AND TOXIC METAL IONS FROM WATER WITH USE OF NEW HIGHLY EFFECTIVE SORBING MATERIAL	1645
<i>E M Evsina, T V Alikova, N V Zolotareva</i>	

RATIONALE FOR ENGINEERING ACTIVITIES TO PREVENT AND REDUCE ADVERSE IMPACT OF ACCIDENTS AT LOW-HEAD HYDRAULIC STRUCTURES	1651
<i>D Sh Sibgatulina, A I Shakirova, N E Danilina</i>	
PURIFICATION OF AQUEOUS MEDIA FROM COPPER IONS USING EXTRACTS FROM WOOD PROCESSING WASTE (OAK BARK)	1657
<i>N Yu Kiryushina, T A Vasilenko, O N Sharapov</i>	
HETEROGENEOUS CATALYTIC SYSTEM "FE -ALUMINOSILICATE / HYDROGEN PEROXIDE" FOR LIQUID-PHASE OXIDATION OF PHENOL	1663
<i>S Ts Khankhasaeva</i>	
USE OF MUNICIPAL VEGETATIVE WASTE AS RAW MATERIAL FOR SORBENT PRODUCTION	1670
<i>Zh Sapronova, S Sverguzova, A Svyatchenko</i>	
STUDY OF ION EXCHANGE AT TEST SOLUTIONS PURIFICATION FROM NICKEL (II) IONS WITH GABBRO-DIABASE FROM ABZAKOVO DEPOSIT	1676
<i>S Sverguzova, I Shaykhiev, R Valiev</i>	
TREATMENT TECHNOLOGY OF LIQUID PHASE AT INDUSTRIAL WASTE LANDFILL	1683
<i>V V Khaustov, V V Bredikhin, T V Khaustova</i>	
SPECIAL ASPECTS OF COAGULATION AND FLOCCULATION PROCESSES IN WASTEWATER TREATMENT	1689
<i>T Yu Gumerov, L N Gorina</i>	
PERSPECTIVES FOR USE OF TECHNOLOGICAL WASTE TO OBTAIN CARBON-MINERAL SORBENTS	1695
<i>S V Badmaeva</i>	
CATALYTIC PURIFICATION OF AQUEOUS SOLUTIONS OF SYNTHETIC DYES USING MODIFIED FORMS OF BENTONITE.....	1701
<i>E Ts Dashinamzhilova</i>	
EXTRACTING COPPER (II) IONS FROM MODEL SOLUTIONS WITH CARBON CONTAINING ADSORPTION MATERIAL	1707
<i>I V Starostina, D V Stolyarov, M M Kosukhin</i>	
THE USE OF AL ₂ O ₃ - PILLARED CLAY IN CLEANING OF AQUEOUS SOLUTIONS FROM SURFACTANTS.....	1714
<i>S Ts Khankhasaeva</i>	
MATHEMATICAL SIMULATION OF WASTEWATER CLEANSE PROCESSES WITH HIGH CONTENT OF TOXIC ORGANIC WATER POLLUTANTS	1721
<i>A F Aminova, G U Yarmuhametova, A K Mazitova</i>	
HIGH FREQUENCY ULTRASOUND ENHANCED OXIDATION OF BISPHENOL A BY FENTON-LIKE SYSTEMS	1727
<i>D G Aseev, D S Krasnekov</i>	
A-FACTOR EXPERIMENTAL DETERMINATION OF AERATION SYSTEM IN AERATION TANKS.....	1733
<i>M Y Dyagelev, V G Isakov, E V Grakhova</i>	

DENITRIFICATION RATES DETERMINATION IN THE PROCESS OF REMOVING NITROGEN FROM WASTEWATER.....	1739
<i>M Y Dyagelev, V G Isakov, E V Grakhova</i>	
PURIFICATION OF WASTEWATER OF SOME CONSTRUCTION MATERIALS PRODUCTION	1745
<i>A K Mazitova, A F Aminova, I A Sukhareva</i>	
COMPLEX DISPERSED ANALYSIS OF PARTICLES APPLYING IN OUTPUT HYDRODYNAMIC CRITERIA DECREASING DUST LEAKAGE' THROW COLLECTORS OF ASPIRATION IN CONSTRUCTION INDUSTRY	1750
<i>S A Koshkarev, I V Stefanenko, K S Koshkarev</i>	
CLEANING HIGH-CONCENTRATION WASTEWATERS LEFT AFTER STYRENE AND PROPYLENE OXIDE PRODUCTION	1756
<i>S A Andreeva</i>	
ANAEROBIC DIGESTION TECHNOLOGY IMPROVING BY BIOGAS PRODUCTION SAFETY DEVELOPMENT	1761
<i>N V Kuznetsova, N A Drapalyuk, T V Shchukina</i>	
ADAPTATION OF THE SAVMIN PROCESS FOR MINE WATER TREATMENT.....	1766
<i>R N Abdrakhmanova, N N Orehkova, O E Gorlova</i>	
PHOTOOXIDATION OF CYANIDE IN MINING EFFLUENTS	1772
<i>B A Tsybikova, A A Batoeva</i>	
PROBIOTICS AS ONE OF METHODS FOR DAIRY WASTEWATERS' TREATMENT INTENSIFICATION	1779
<i>E S Glushchenko, E I Vialkova, O V Sidorenko</i>	

Author Index