

CONTENTS

AIR IMPERMEABILITY OF CONCRETE INCREASED BY DIFFERENT INGREDIENTS AND ADMIXTURES	
Jiří Adámek, Vlasta Juránková	9
STUDIES CONCERNING THE FLEXURAL BEHAVIOUR OF REINFORCED CONCRETE BEAMS WITH SILICA FUME ADDITION	
Marinela Barbuta, Mihai Petru	16
STRUCTURAL PRINCIPLES IN REINFORCED CONCRETE ACCORDING TO EUROPEAN STANDARD	
Mária Bellová	24
FREEZING AND THAWING RESISTANCE OF CONCRETE WITH MINERAL ADMIXTURES	
Vlastimil Bílek, Josef Křápek	31
ASSESSMENT OF NATURAL AGEING OF MINERAL FACADE PLASTERS ON THE GROUNDS OF THE PORE STRUCTURE DURING SHORT AGEING TEST	
Jerzy Bochen	37
FAILURES OF COMPOSITE FLOOR STRUCTURES MADE FROM FIRED CLAY AND CONCRETE	
Petr Bouška, Vladimír Hanykýř, Miroslav Vokáč	44
EFFECT OF CARBONISATION PROGRESS ON CORROSION OF STEEL REINFORCEMENT BY OBSERVING CHANGE OF ELECTRICAL RESISTANCE AND ELECTRODE POTENTIAL	
Miroslav Brodňan, Katarína Šlopková	50
PARTIAL REPLACEMENT OF CEMENT BY LIGNITE FLUID COMBUSTION ASH AND ITS IMPACT ON CONCRETE SULPHATE RESISTANCE	
Jiří Brožovský, Petr Martinec	56
INFLUENCE OF CONCRETE CRACKING ON FLEXURAL STIFFNESS OF COMPOSITE GIRDERS	
Ján Bujňák, Jaroslav Odrobiňák	61
THE HOMOGENEITY OF THE REINFORCED CONCRETE WITH METALLIC FIBERS	
Vladimír Corobceanu, Daniel Covatariu and Răzvan Giusca	68
PROTECTION OF CONCRETE STRUCTURES THROUGH SURFACE ADJUSTMENTS	
Rostislav Drochytka	74
TO SOME ISSUES OF DURABILITY OF BUILDING MATERIALS	
Tibor Ďurica	80
PROBLEM OF ESTIMATING THE CONCRETE POLLUTION DEGREE IN POST-TENSIONED PRESTRESSED CONCRETE GIRDERS	
Maria Fiertak, Rafał Sieńko	87
THE EFFECT OF CONDENSED SILICA FUME ON CEMENT - SUPERPLASTICIZER INTERACTION	
Jacek Gołaszewski, Janusz Szwabowski	93
THE INFLUENCE OF THE SPECIFIC SURFACE OF CEMENT ON RHEOLOGICAL PROPERTIES OF MORTARS	
Jacek Gołaszewski, Janusz Szwabowski	99
FORCES ANALYSIS IN SPLICES OF REINFORCEMENT	
Krzysztof Gromysz	105
THE INFLUENCE OF DIFFERENT TYPES OF AGGREGATE ON THE MICROSTRUCTURE OF THE TRANSITION ZONE AND PERMEABILITY OF HIGH PERFORMANCE CONCRETES	
Stefania Grzeszczyk, Aneta Matuszek-Chmurowska	111

INTEGRATED ENVIRONMENTAL DESIGN OF CONCRETE FLOOR STRUCTURES	
Petr Hájek	118
INFLUENCE OF CHANGE OF BOND BETWEEN CONCRETE AND REINFORCEMENT ON SERVICEABILITY OF BEAMS	
Zora Hroncová, Vladimír Piták.....	124
HIGH PERFORMANCE CONCRETE STRUCTURES	
Mechyslav Chekanovych.....	130
REINFORCED CONCRETE BEAMS WITH INCREASED COMPRESSION VALUES	
Lena Chekanovych	136
THE METHOD OF REINFORCED CONCRETE ANALYSIS IN THE CORROSION CONDITION	
Jadwiga Jędrzejczyk - Kubik, Tomasz Krykowski	142
DEFORMATION CHARACTERISTICS OF SFRC	
Ján Jerga, Martin Križma.....	148
EFFECT OF AGGREGATES ON MOISTURE TRANSPORT PARAMETERS OF HIGH PERFORMANCE CONCRETE	
Milena Jiříčková, Eva Mňahončáková, Robert Černý	154
FREE AND BOUND CHLORIDE CONCENTRATION IN CONCRETE: ANALYSIS OF APPLIED TECHNIQUES	
Milena Jiříčková, Zbyšek Pavlík, Robert Černý	160
CHOSEN DYNAMIC FEATURES OF FIBER REINFORCED CONCRETE BEAMS	
Jacek Katzer	166
DESIGN FOR DURABILITY:AN INTERACTIVE TOOL FOR RC STRUCTURES	
Zbyněk Keršner , Pavla Rovnaníková , Břetislav Teplý , Drahomír Novák	172
CAN NON-METALLIC FIBERS IMPROVE FRACTURE PROPERTIES OF HIGH STRENGTH CONCRETE?	
Zbyněk Keršner , Jiří Strnad , Ivailo Terzijski	183
ACCELERATED TEST METHOD OF DURABILITY ASSESSMENT OF THIN-WALLED CEMENT COMPOSITES SENSITIVE TO WINTER AND SOMMER CLIMATIC ACTIVITIES	
Josef Knězek, Sylva Modrý	193
DESIGN METHODS OF FRC STRUCTURAL MEMBERS	
Alena Kohoutková.....	199
INFLUENCE OF PVA FIBERS ON DEFORMATION BEHAVIOUR OF CEMENTITIOUS COMPOSITES (ECC) UNDER COMPRESSION AND TENSILE LOAD	
Jiří Kolisko, Petr Kabele, Tomáš Klečka, Karel Kolář.....	205
COMPARISON OF HEAT AND MASS TRANSPORT MODELS AND THEIR INFLUENCE ON THE STRESS STATE IN RC STRUCTURES	
Robert Korzeniowski, Artur Lupa	211
THE EFFECT OF SELECTED AGENTS ON THE CARBONATION PROCESS IN RC STRUCTURES	
Robert Korzeniowski, Katarzyna Nowak	217
NON-DESTRUCTIVE TESTING OF REINFORCED BRIDGES BY ACOUSTIC EMISSION METHOD	
Marta Kořenská, Luboš Pazdera, Zdeněk Chobola, Karel Pospíšil, Josef Stryk	223
CHLORIDE INGRESS AND STEEL CORROSION IN CONCRETE MODIFIED WITH ASPHALT ADDITION	
Marta Kosior - Kazberuk	229

RELIABILITY OF MULTI-ELEMENT REINFORCED CONCRETE STRUCTURES USING MARKOV CHAINS	
Peter Koteš, Josef Vičan	235
INFLUENCE OF FRP SHEETS ON THE SHEAR CAPACITY OF RC BEAMS	
Patrik Kotula	241
MORTARS WITH ZEOLITE – BLENDED PORTLAND CEMENTS AND THEIR SIGNIFICANCE	
Ludovít Krajčí	247
RELIABILITY ANALYSIS OF REINFORCED CONCRETE CONTAINMENT DUE TO HIGH INTERNAL OVERPRESSURE AND TEMPERATURE	
Juraj Králik	254
INFLUENCE OF DIFFERENT MATERIALS PROPERTIES OF SFRC ON DESIGN OF STRUCTURAL CONCRETE MEMBERS	
Jiří Krátký, Alena Kohoutková , Jan Vodička	260
RISK REDUCTION OF CRACK CREATION OF HIGH STRENGTH CONCRETES IN INITIAL HYDRATION STAGE SELECTING SUITABLE CHEMICAL ADDITIVES	
Zdeněk Krček, Jiří Zach, Hana Kmínová	266
DEFORMATIONS OF AERATED CONCRETE UNDER LONG-TERM LOAD	
Martin Křížma, Andrej Pitoňák, Terezia Nürnbergerová, Karol Hanečka	271
NUMERICAL ANALYSIS OF CHLORIDE IONS TRANSPORT IN REINFORCED CONCRETE	
Tomasz Krykowski , Zofia Szweda , Adam Zybur	277
ACOUSTIC EMISSION MEASUREMENTS TO ASSESS THE SHEAR STRENGTH OF REINFORCED CONCRETE BEAMS	
Wiesław Kubiszyn	283
MAINTENANCE PLANNING, THE LIFE SPAN EXTENDER	
Abayomi Layeni	289
EFFECT OF AGGREGATE GRAIN DISTRIBUTION UPON SELECTED PERFORMANCE PARAMETERS OF CONCRETE IN THE ASPECT OF DURABILITY OF CONCRETE STRUCTURES	
Małgorzata Lelusz	294
DESIGN OF REPAIR COMPOSITIONS FOR CONCRETE BY WORKABILITY AND DURABILITY CRITERIA WITH METHODS OF COMPUTATIONAL MATERIALS SCIENCE	
Tatiana Lyashenko, Vitaly Voznesensky , Alexandra Dovgan, Igoris Podagelis, Anatoly Sharshunov	300
EXPERIMENTAL STUDY ON THE QUALITY OF RECYCLED AGGREGATE CONCRETE	
Dorota Małaszkiwicz	306
THE RELIABILITY INCREASING OF ROAD PRESTRESSED CONCRETE BRIDGE	
Martin Moravčík	312
APPROACHES TO MODELLING OF RC SLABS CONSIDERING THE INFLUENCE OF CRACKS	
Ondřej Nečásek, Luděk Brdečko	318
EXPERIMENTAL INVESTIGATION OF PROPERTIES OF THE YOUNG CONCRETE WITH CEMENT TYPE CEM II AND CEM III	
Pavel Padevět	322
DETERMINATION OF MOISTURE PROFILES IN CONCRETE USING THE TDR METHOD	
Zbyšek Pavlík, Milena Jiříčková, Robert Černý	328

SURFACE TREATMENT OF CONCRETE STRUCTURES EXPOSED TO CORROSIVE MEDIA	
Vít Petránek	334
INFLUENCE OF THE POROSITY ON THE RADON EXHALATION FROM LIGHTWEIGHT CONCRETES	
Jan Antoni Rubin	340
METHOD OF MEASURING THE INDUCTION-PERIOD TIME OF THE CEMENT PASTE	
Petr Semerák	346
CONTRIBUTION TO LIFE TIME OF CONCRETE CONSTRUCTIONS	
Jozef Slimák	350
MASONRY COLUMN STRENGTHENED BY CONCRETE	
Jaroslav Solař , Antonín Lokaj	354
THE MODERN PROTECTIVE MATERIALS AGAINST WATER OF CONCRETE STRUCTURES	
Jan Ślusarek	360
RESPONSE OF HARDENING CONCRETE TO SHORT-TIME AND SUSTAINED LOADING	
Petr Štemberk, Jaroslav Kruis	366
STRENGTHENING OF MASONRY VAULTS	
Petr Štěpánek, Jan Czempiel, Martin Zlámal	372
THE INFLUENCE OF TEMPERATURE CHANGES AND DEGRADATION CYCLES ON BEHAVIOUR OF CONCRETE ELEMENTS SRENGTHENED BY EXTERNAL BONDED REINFORCEMENT	
Petr Štěpánek, Tomáš Vaňura, Jan Fojtl, Vladimír Dibelka Ivana Švaříčková.....	378
HOUSING AND FINANCING MAINTENANCE AND REPAIR PLANNING	
Jarmila Talavašková , Soňa Hurná	382
SOME PRACTICAL PROBLEMS OF STUDY THE CONCRETE CORROSION RESISTANCE	
Eva Terpáková	387
HOMOGENEITY OF HIGH PERFORMANCE CONCRETE GAS PERMEABILITY TEST RESULTS	
Tomasz Tracz , Jacek Śliwiński	392
RESPONSE OF FRC STRUCTURAL MEMBERS TO POST-CRACK CYCLIC LOADING	
Jitka Vašková.....	399
PROSPECTS OF FRC WITH STRUCTURAL SYNTHETIC FIBRES	
Jan Vodička, Jiří Krátký , Jitka Vašková , Hana Hanzlová	405
SAFETY MARGIN ASSESSMENT OF CONCRETE AND REINFORCED CONCRETE ELEMENTS IN BENDING BASED ON TESTS RESULTS	
Krystyna Wróbel	411
NEW MATERIALS FOR ADDITIONAL THERMAL INSULTATION AND THEIR ECONOMIC AND ENVIRONMENTAL ASPECTS	
Nikol Žižková	416