

CONTENTS

| | |
|---|-----|
| CONCRETE CREEP DEFORMATIONS CAUSED BY BEND AND PRESSURE STRESS SPECIMEN TEST Jiří Adámek, Pavel Juránek, Jaromír Láník, Vlasta Juránková | 9 |
| INFLUENCE OF THE NATURE OF CONCRETE SURFACE ON THE POROSITY IN SURFACE LAYER Patrik Bayer, Pavel Rovnaník | 15 |
| COVER TO REINFORCEMENT AND ITS' INFLUENCE ON RESISTANCE OF CONCRETE STRUCTURAL ELEMENTS Mária Bellová | 21 |
| PASSIVE FIRE PROTECTION OF STRUCTURES FROM THE POINT OF VIEW EUROCODES Mária Bellová | 27 |
| APPROXIMATION OF LOAD-DISPLACEMENT DIAGRAM FOR CONCRETE BASED ON EXPERIMENTAL TESTING Luděk Brdečko, David Lehký, Jiří Brožovský | 33 |
| EXPERIMENTAL VERIFICATION OF HIGH PERFORMANCE CONCRETE IN PRESTRESSED GIRDER Petra Bujňáková, Martin Moravčík | 39 |
| INFLUENCE OF NANOPARTICLES TO ELECTRIC PROPERTIES OF CEMENT COMPOSITES René Čechmánek, Jiří Junek, Miroslav Svoboda, Petr Sulovský, Pavel Šteffan | 45 |
| INFLUENCE OF STEEL FIBRES ADDITION ON VOLUME CHANGES OF STRUCTURAL LIGHTWEIGHT CONCRETE Lucyna Domagała | 51 |
| LIFE CYCLE IN THE FIELD OF HIGHWAY ENGINEERING Tibor Ďurica, Peter Pazúr, Ľubomír Pepucha | 57 |
| INFLUENCE OF TEMPERATURE ON WORKABILITY OF FRESH SELF COMPACTING CONCRETE Jacek Gołaszewski, Grzegorz Cygan | 65 |
| THE INFLUENCE OF Na_2O_2 CONTENT IN CEMENT ON RHEOLOGICAL PROPERTIES OF FRESH SUPERPLASTICIZED CEMENT BINDER MIXTURES Jacek Gołaszewski | 72 |
| CEMENT JOINTLESS FLOOR WITH REDUCED SHRINKAGE MODIFIED BY POLYMER ADDITIVE Maciej Gruszczynski | 79 |
| EFFECT OF LIMESTONE FILLERS IN CEMENT ON THE RHEOLOGICAL PROPERTIES Stefania Grzeszczyk, Elżbieta Janowska-Renkas | 86 |
| THE EFFECT OF DIFFERENT FILLERS IN CEMENT ON THE RHEOLOGICAL PROPERTIES OF SELF-COMPACTING CONCRETE MIXTURES Stefania Grzeszczyk, Bartłomiej Skaliński | 92 |
| LIGHT CONSTRUCTION LIAPOR CONCRETE'S FREEZE-THAW RESISTANCE Zbyněk Hlaváč, Barbara Kucharczykova, Petr Cikrle | 99 |
| ANCHORING SYSTEMS FOR PRESTRESSED FRP REINFORCEMENT David Horak, Frantisek Gírgle, Petr Stepanek | 105 |

| | |
|---|-----|
| CHANGE OF BOND BETWEEN CONCRETE AND TENDONS OF PARTIALLY PRESTRESSED BEAMS ON THEIR DEFLECTION | |
| Zora Hroncová | 111 |
| QUALITY ASSESSMENT OF CONCRETE ELEMENTS BY MECHANICAL IMPEDANCE | |
| Ján Jerga, Milan Pokorný | 117 |
| RELIABILITY EVALUATION OF STRUCTURAL COMPONENT IN SYSTEM «BUILDING» ON OPERATION STAGE OF LIFE CYCLE | |
| Kabanov V.A., Zamytsky O.N. | 124 |
| INFLUENCE OF SILICATE ADMIXTURES ON FRACTURE PARAMETER VALUES OF CONCRETE | |
| Zbyněk Keršner, Pavla Rovnaníková, Pavel Schmid | 130 |
| CEMENT COMPOSITES WITH HYBRID DISPERSIVE FIBROUS REINFORCEMENT | |
| Josef Knězek, René Čechmánek ² | 135 |
| UTILISATION OF FIBRECONCRETE IN STRUCTURAL ELEMENTS FOR INCREASING OF DURABILITY | |
| Alena Kohoutková, Iva Broukalová | 141 |
| REINFORCED CONCRETE BEAMS STRENGTHENED WITH CFRP MATERIALS UNDER DYNAMIC LOADING | |
| Peter Koteš, Patrik Kotula, Miroslav Brodňan | 147 |
| CEMENT-BENTONITE SUSPENSION AND ITS BEHAVIOUR IN ENVIRONMENT WITH HIGH AGGRESSIVENESS | |
| Ludovít Krajčí | 153 |
| LEVEL 2 PSA ANALYSES OF NUCLEAR POWER PLANTS STRUCTURES - TYPE VVER 440 | |
| Juraj Králik | 160 |
| SENSITIVITY ANALYSIS OF PANEL BUILDINGS TO EXTERIOR EXPLOSION EFFECT | |
| Juraj Králik, Peter Rozsár | 167 |
| FRACTURE PROPERTIES OF LIGHTWEIGHT CONCRETE DURING SPECIMEN AGEING | |
| Barbara Kucharczyková, Zbyněk Keršner | 174 |
| OPTIMISATION OF PRESTRESSED POLES FROM SPUN CONCRETE | |
| Ivana Laníková, Petr Štěpánek | 180 |
| THE AIR-ENTRAINING ADMIXTURE ACTION EFFICIENCY RELATIVE TO WATER-BINDER AND PASTE-AGGREGATE COEFFICIENT OF SCC | |
| Beata Łażniewska-Piekarczyk | 186 |
| ASSESSMENT OF USABLE DURABILITY OF BUILDING MATTERS ON BASE OF SECONDARY RAW MATERIALS | |
| Pavel Leber, Petr Bibora, Miroslav Svoboda, Jaroslava Ledererová | 193 |
| INSPECTION BY ATTRIBUTES OF PRECAST CONCRETE ELEMENTS PRODUCTION. | |
| Małgorzata Lenart | 199 |
| EXPERIENCE OF APPLICATION OF CONCRETE NON-DESTRUCTIVE CONTROL ON OBJECT OF MONOLITHIC RECONSTRUCTION | |
| Sergei Leonovich, Dmitry Snezhkov, Boris Khroustaliy | 206 |

| | |
|---|-----|
| THE USE OF NANOINDENTATION IN THE RESEARCH OF CEMENTITIOUS MATERIALS | |
| Jaroslav Menčík | 212 |
| CHARACTERISATION AND PREDICTION OF CONCRETE DETERIORATION IN EXISTING STRUCTURES | |
| Jaroslav Menčík, Jiří Mareš | 218 |
| RESISTIVITY TO DE-ICING SALTS OF CONCRETES WITH DIFFERENT AMOUNTS OF ALTERNATIVE SILICATE ADMIXTURES | |
| Michal Ondráček, Martin Sedlmajer, Pavla Rovnaníková | 224 |
| OPTIMISATION OF CONCRETE STRUCTURES | |
| Jan Plšek, Petr Štěpánek | 230 |
| CONCRETE BRIDGE STRUCTURE: INVESTIGATION OF CHLORIDE CONCENTRATION ASSESSED BY LABORATORY DETERMINATION AND BY PREDICTIVE MODEL | |
| Jan Podroužek, Pavla Rovnaníková, Břetislav Teplý | 238 |
| FRACTURE-MECHANICAL PARAMETER VALUES OF SPECIAL FIBRE-REINFORCED CEMENT-BASED COMPOSITES | |
| Ladislav Řoutil, Jan Eliáš, Václav Veselý, Zbyněk Keršner | 244 |
| INFLUENCE OF CHEMICAL AGGRESSIVE ENVIRONMENT ON THE MECHANICAL PROPERTIES OF HIGH PERFORMANCE CONCRETES | |
| Alena Sičáková, Eva Terpáková | 250 |
| AN EFFICIENCY TESTS OF REINFORCEMENT CORROSION MIGRATING INHIBITORS | |
| Andrzej Śliwka, Adam Zybura | 257 |
| UTILIZATION OF WASTE DIATOMACEOUS EARTH FOR THE CEMENTITIOUS BINDER PREPARATION | |
| Theodor Staněk | 264 |
| SELECTED PROBLEMS OF THE FRAME CONCRETE STRUCTURES UNDER CYCLIC LOAD | |
| Michal Suchoň, Martin Križma, Terezia Nürnbergerová, Martin Moravčík | 270 |
| STRUCTURAL OPTIMISATION OF CONCRETE STRUCTURES | |
| Petr Štěpánek | 277 |
| BEHAVIOUR OF FC BEAMS REINFORCED WITH STEEL BARS OF VARIOUS DUCTILITY | |
| Jitka Vašková, Jan Vodička, Jiří Krátký | 285 |
| NUMERICAL ANALYSIS OF WORK-OF-FRACTURE METHOD FOR DETERMINATION OF FRACTURE PARAMETERS OF CONCRETE | |
| Václav Veselý, Petr Frantík, Ladislav Řoutil, Zbyněk Keršner | 291 |
| PREDICTION OF RHEOLOGY IN MATERIAL NONLINEAR ANALYSIS OF CONCRETE REINFORCED STRUCTURES | |
| Rostislav Zídek | 297 |
| ALKALI-ACTIVATED SLAG PASTES PREPARED WITH VERY LOW LIQUID/SOLID (L/S) RATIO AND COMPACTED BY HIGH PRESSURES | |
| Vladimír Živica, Lubomír Bágef, Svetozar Balkovic, Milan Drábik | 302 |