

## CONTENTS

<b>MEASUREMENT OF MOISTURE STORAGE PARAMETERS USING PRESSURE PLATE APPARATUS</b> MILENA PAVLÍKOVÁ, RADKA PERNICOVÁ, ROBERT ČERNÝ .....	5
<b>TEXTURE CHARACTERIZATION OF BUILDING MATERIALS BY GAS ADSORPTION</b> MARTIN KEPPERT, MILENA PAVLÍKOVÁ, ROBERT ČERNÝ .....	11
<b>METHODS FOR PREPARING OF CHEMICAL FOAMED GYPSUM</b> LUBOŠ SVOBODA, ALENA VIMMROVÁ .....	19
<b>METHODS FOR DETERMINATION OF MOISTURE DIFFUSIVITY OF POROUS BUILDING MATERIALS ON THE BASIS OF IMBIBITION EXPERIMENT</b> ZBYŠEK PAVLÍK, ROBERT ČERNÝ .....	23
<b>IN-SITU ANALYSIS OF ACTUAL STATE OF BUILDING STRUCTURES REGARDING TO THE MOISTURE RELATED PROBLEMS</b> ZBYŠEK PAVLÍK ....	29
<b>METAKAOLIN – WHITE CLAY AGGREGATE FOR HIGHER DURABILITY OF CONCRETE</b> DAGMAR JANDEKOVÁ, KAREL KOLÁŘ, PETR KONVALINKA, OTA VACÍN .....	33
<b>THERMAL BEHAVIOUR OF BENTONITES</b> PAVLA BAUEROVÁ, JIŘÍ SLOVÁK, RADEK VAŠÍČEK .....	37
<b>HIGH-TEMPERATURE MEASUREMENT OF THE THERMAL DIFFUSIVITY OF BUILDING MATERIALS</b> JITKA NĚMEČKOVÁ, EVA VEJMEJKOVÁ, JAN TOMAN, ALENA VIMMROVÁ .....	45
<b>DENSITY DETERMINATION USING HELIUM PYCNOMETRY</b> MILENA PAVLÍKOVÁ, RADKA PERNICOVÁ .....	51
<b>REVIEW OF METHODS FOR THERMAL CONDUCTIVITY MEASURING</b> ALENA VIMMROVÁ, JAN TOMAN, EVA VEJMEJKOVÁ .....	55
<b>BASIC APPROACHES TO THE DETERMINATION OF HYGROTHERMAL PERFORMANCE OF BUILDING STRUCTURES</b> ZBYŠEK PAVLÍK .....	67
<b>STUDY OF PERMEABILITY OF CONCRETE FROM SIGHT THE WATER DIFFUSION IN CONCRETE STRUCTURE</b> VLADIMÍRA VYTLAČILOVÁ, TOMÁŠ DVORSKÝ, ALENA KOHOUTKOVÁ .....	73
<b>IMPULSE METHOD FOR MEASUREMENT OF THERMAL PROPERTIES OF BUILDING MATERIALS IN DEPENDENCE ON MOISTURE CONTENT</b> PAVEL TESÁREK, EVA VEJMEJKOVÁ, JAN TOMAN, ALENA VIMMROVÁ, ROBERT ČERNÝ .....	81

<b>THE USE OF NON-DESTRUCTIVE ULTRASONIC METHOD FOR IDENTIFICATION DEFECTS INSIDE COMPOSITE MATERIALS</b> ONDREJ MICHALKO, ZDENKA BAŽANTOVÁ .....	87
<b>THE MONITORING OF THE DAMAGE INFLUENCE ONTO DAMPING OF THE REINFORCED CONCRETE ELEMENT</b> TOMÁŠ PLACHÝ, MICHAL POLÁK .....	91
<b>APPLICATION OF CAPACITANCE METHOD FOR DETERMINATION OF MOISTURE PROFILES AND MOISTURE DIFFUSIVITY OF BUILDING MATERIALS</b> PAVEL TESÁREK, ROBERT ČERNÝ .....	95
<b>MEASURING OF VOLUME CHANGES OF CEMENT PASTES DURING SOLIDIFICATION AND HARDENING</b> JIŘÍ LITOŠ .....	103
<b>THE DAMAGE DETECTION AND DAMAGE LOCALIZATION METHODS BASED ON MODAL ANALYSIS AND ITS APPLICATION ON A PRESTRESSED CONCRETE LOADED BY DYNAMIC FATIGUE FORCE</b> TOMÁŠ PLACHÝ, MICHAL POLÁK .....	109
<b>EXPERIMENTAL METHODS FOR DETERMINATION OF BASIC HYGRIC PROPERTIES OF BUILDING MATERIALS</b> PAVEL TESÁREK, ROBERT ČERNÝ .....	115
<b>APPLICATION OF CALORIMETRY FOR THE MEASUREMENT OF HYDRATION HEAT OF BUILDING MATERIALS</b> PAVEL TESÁREK, VRATISLAV TYDLITÁT, ROBERT ČERNÝ .....	121
<b>NUMERICAL MODELLING AND EXPERIMENTAL DEVELOPMENT OF PLATE ELECTRODES FOR DIELECTRIC MEASUREMENT OF WATER CONTENT IN POROUS BUILDING MATERIALS</b> JAN MATOUŠEK, VÁCLAV KURÁŽ .....	127
<b>TESTS OF CONCRETE ADMIXTURES WITH THE FUNCTION OF ADDITIONAL ACTIVATION OF CRYSTALLISATION IN THE CONCRETE STRUCTURE</b> MILAN MYŠKA .....	137
<b>EVALUATION OF COMPONENTS OF TEMPERATURE LOAD OF A PRESTRESSED CONCRETE BOX-GIRDER BRIDGE</b> MICHAL POLÁK, TOMÁŠ PLACHÝ, JAN HEREL .....	143
<b>METHODICS OF DETERMINATION OF MATERIAL CHARACTERISTICS OF CONCRETE IN COMPRESSION</b> PETR KONVALINKA, JIŘÍ LITOŠ, JAN MATOUŠEK, PAVEL PADEVĚT .....	153
<b>PROCEDURE OF PULLOUT TESTS FOR FRP BARS</b> RADOSLAV SOVJÁK, PETR KONVALINKA, JAN L. VÍTEK .....	155
<b>SATURATION DEVELOPMENT IN BENTONITE BARRIER</b> JIŘÍ SLOVÁK, JAROSLAV PACOVSKÝ, JIŘÍ SVOBODA, RADEK VAŠÍČEK, PAVLA BAUEROVÁ .....	157

<b>REVIEW OF DESTRUCTIVE METHODS IN TESTING OF THE MATERIAL PROPERTIES OF CONCRETE PAVEL PADEVĚT .....</b>	<b>173</b>
<b>MODELING COUPLED HEAT AND MOISTURE TRANSPORT IN BUILDING MATERIALS: DE VRIES' MODEL AND ITS APPLICATION JIŘÍ MADĚRA, ROBERT ČERNÝ.....</b>	<b>179</b>
<b>MODELING COUPLED HEAT AND MOISTURE TRANSPORT IN BUILDING MATERIALS: KÜNZEL'S MODEL AND ITS APPLICATION JIŘÍ MADĚRA, ROBERT ČERNÝ .....</b>	<b>183</b>
<b>MODELING COUPLED HEAT AND MOISTURE TRANSPORT IN POROUS MATERIALS: GRUNEWALD'S MODEL AND ITS APPLICATION JIŘÍ MADĚRA, ROBERT ČERNÝ .....</b>	<b>187</b>
<b>HIGH-TEMPERATURE MEASUREMENT OF THE THERMAL CONDUCTIVITY OF BUILDING MATERIALS JITKA NĚMEČKOVÁ, EVA VEJMELKOVÁ, JAN TOMAN, ALENA VIMMROVÁ .....</b>	<b>191</b>