

CONTENTS

<i>Karel Balik, Miroslav Sochor, Petr Tichy, Tomas Suchy, Radek Sedlacek, Martin Cerny, Vlasta Pesakova, Hana Hulejova</i>	1
Glass based biocomposite materials to be used in orthopaedics	
<i>Ladislav Berka, Nataliya V. Murafa</i>	3
On Surface Microcracks Toughness of Brittle Materials Evaluation	
<i>Petr Bouška, Miroslav Vokáč</i>	7
Experimental and theoretical analysis of sandstone masonry properties	
<i>Jan Bryscejn, Miloš Drdácký, J. Jakubek, Jaroslav Valach, Dan Vavřík</i>	9
CRAFT Project HISTOCLEAN – an alternative usage of software	
<i>Iva Čermáková, Martin Stockmann, Jochen Naumann</i>	13
A new calibration device for high temperature strain gauges	
<i>Tomáš Doležel</i>	15
Material characteristics of concrete loaded by freeze-thaw loading	
<i>Lubomír Gajdoš</i>	19
The effect of overloading on fracture properties of pipes	
<i>Marc Gutermann, Volker Slowik, Klaus Steffens</i>	23
Experimental safety evaluation of concrete and masonry bridges	
<i>G. Hanswille, Markus Porsch</i>	27
Development of new models for load introduction areas of composite columns with concrete filled hollow sections	
<i>G. Hanswille, Markus Porsch, Cenk Üstündağ</i>	31
Development of new models to describe the fatigue strength of headed shear studs in composite structures	
<i>Josef Jíra, Jitka Jírová, Petr Bouška, Miroslav Vokáč</i>	35
Experimental research of reliability of cable bushings in Prague metro after floods in summer 2002	
<i>Ondřej Jiroušek</i>	39
Relationship between materials properties and apparent density of cancellous bone determined using small specimens and optical identification method	
<i>Matthias Koca, Jochen Naumann</i>	43
Failure criteria for bulk metal forming at elevated temperatures	

Andreas S. Kompalka, S. Reese	45
Damage determination with iterative Finite Element model updating	
Karl-Hans Laermann	49
On the identification of structural parameters based on measured data in solid mechanics	
Pavel Marek	53
SBRA method – theory and experiments	
Pavel Padevět	57
Experimental investigation of properties of the young concrete with cement type CEM II and CEM III	
Iveta Pallová	61
Threedimensional evaluation of spine shape and back surface – utilization in research of scoliosis (Part II)	
Andrea Ryšávková	65
Threedimensional evaluation of spine shape and back surface – utilization in research of scoliosis (Part I)	
Jaan Unger, A. Brosius, M. Stiemer, B. Svendsen, M. Kleiner, H. Blum	67
Experimental investigation, modeling and simulation of electromagnetic sheet metal forming processes	
Jaroslav Valach	71
Integration of thermography data into displacement calculation	
Miloslav Vilímek	75
Hybrid method for muscle forces estimation	
Ralf Wörmann, Reinhard Harte, Kristen Stopp	79
Reinforced concrete structures under hydrothermal action – numerical simulation and verification via experimental data	
Tomáš Plachý, Michal Polák	83
Damage Localization of Structures Based on Modal Characteristic Changes	