

CONTENTS**MATERIALS SCIENCE**

Tiberiu POTECAȘU, Elena DRUGESCU, Octavian POTECASU, Rui CORDEIRO SILVA: ACOUSTIC QUALITY CONTROL SYSTEM FOR CERAMIC PRODUCTS	Mirela PREDESCU, Șaban RAMI, Ghiban BRÂNDUȘA: IMPROVEMENT OF MECHANICAL BEHAVIOUR OF SOME SUCKER RODS BY INDUCTION HEAT TREATMENT WITH LOW FREQUENCY CURRENTS
5	56
Yang SHUFENG, Li JINGSHE, Song YAN-QI: STUDY ON THE PELLETTIZING OF SULFATE RESIDUE WITH MAGNETITE CONCENTRATE IN GRATE-KILN SYSTEM	Mirela PREDESCU, Stefania IORDACHE, Brândușa GHIBAN, Laurentiu PREDESCU: MODELLING AND SIMULATING BEHAVIOUR TO FATIGUE OF MATERIALS 35Mn16 AND 42MoCr11 USED FOR SUCKER RODS
13	61
Anna NOCIVIN, Doina RADUCANU, Ion CINCA, Vasile Danut COJOCARU, Ecaterina VASILESCU, Anisoara CIMPEAN: NEW METHOD OF MATERIAL SELECTION APLIED TO 3D STRUCTURED HARD TISSUE DESIGN – PART II	Constantin OANCEA , Constantin GHEORGHIES, Gheorghe FLOREA , Bogdan FLOREA : XRD STUDIES ON SUPERFICIAL LAYER OF STEEL SUBJECTED TO FATIGUE PROCESS
18	66
Florin ȘTEFĂNESCU, Gigel NEAGU, Alexandrina MIHAI: EFFECTS OF LOW FREQUENCY MECHANICAL VIBRATION ON THE SOLIDIFICATION PROCESS OF ALLOYS	Marius VASILESCU, Mircea DOBRESCU: TITANIUM AND TITANIUM ALLOYS AS BIOMATERIALS. PROPERTIES, PROCESSING AND DENTAL APPLICATIONS
24	69
Dumitru MIHAI, Nicanor CIMPOEȘU: IRON BASED ALLOYS BEHAVIOR BY MOLDING SIMULATION POINT OF VIEW	Andreea HEGYI, Horațiu VERMEȘAN, Claudiu BUMBUC: INFLUENCE OF ANTICORROSIVE PROTECTION OF THE STEEL CONCRETE UPON THE RESISTANCE TO STRECHING BY SPLITTING OF THE REINFORCED CONCRETE
30	74
Dumitru MIHAI, Nicanor CIMPOEȘU: POURING AND SOLIDIFICATION SIMULATION OF AN AL-MG BASED ALLOY IN DIFFERENT GEOMETRICAL FORMS AS WORKING PIECES	Ilie BUTNARIU: MATHEMATICAL MODELS USED FOR COMPUTER SIMULATION FOR SOLIDIFICATION PROCESSES OF STEEL IN CHILL
35	79
Manuela Cristina PERJU, Dan-Gelu GĂLUȘCĂ, Carmen NEJNERU, Anca Elena LĂRGEANU: RESEARCH REGARDING MORPHOLOGY OF HETEROGENEOUS MULTIPLE COATING LAYERS ON FERRITE PERLITIC SUPPORT USING VIBRATING ELECTRODE METHOD	Ilie BUTNARIU, Dănuț FLORESCU: OPERATING CHARACTERIZATION OF PRODUCT SUPPORT BODY COUPLES-COATING AND SUPERFICIAL LAYER
41	82
Ioan GHIMBĂȘEANU: EXPERIMENTAL SYSTEM FOR DETERMINING THE MECHANICAL STRESS OF TRACTION. COMPERATIVE STATIC ANALYSIS AT TRACTION WITH FINITE ELEMENTS	Ilie BUTNARIU, Dănuț FLORESCU: RESEARCH ON INFLUENCE OF STRUCTURE ON PHYSICAL AND MECHANICAL PROPERTIES OF STEEL
47	87
Liviu Sevastian BOCÎ: THE INFLUENCE OF THE BRAKING TIME ON THE HEAT FLOW THROUGH THE FRICTION SURFACES OF THE FRICTION ELEMENTS OF THE RAILWAY VEHICLES' DISK BRAKES	Ion SĂRĂCIN, Olimpia PANDIA, Taian POPESCU, Alexandru CHIRIAC, Marian BORDEI: THERMAL TREATMENT OF GEAR SINTERING BY POWDER METAL STEELS
52	91

Ion SĂRĂCIN, Olimpia PANDIA, Marin GHEORGHE,
Alexandru CHIRIAC: **APPARATUS FOR
DETERMINATION SOIL PENETRATION**

**RESISTANCE FOR ESTABLISHING WORK INDEX
PARAMETERS OF AGRICULTURAL MACHINES**
.....94

ECONOMICAL MANAGEMENT

Alin Marius ANDRIEȘ, Mircea ASANDULUI: **THE
IMPACT OF FINANCIAL LIBERALIZATION ON
THE PERFORMANCE OF BANKS IN ROMANIA**
.....97

Cătălina LACHE, Gabriela BOLDUREANU, Daniel
BOLDUREANU, Teodor PĂDURARU: **THE ANALYSIS
OF CONSUMERS' BEHAVIOR IN THE FRAME OF
WORLD ECONOMIC CRISIS**
.....107

SOCIAL ENGINEERING AND OTHER ACTIVITIES

Ioan SCARNECIU, Ileana MUNTEAN, Camelia
SCARNECIU, Vlad SCARNECIU: **DIAGNOSIS AND
RENAL LITHIASIS TREATMENT USING
ULTRASOUNDS**
.....112

Florian Ghionea, Cristina FLAUT: **AN ALGORITHM
FOR OPTIMIZATION THE ROMANIAN RAILWAY
TRANSPORT NETWORK**
.....116

Bogdan MĂCĂRESCU, Valentine NEDEFF, Cornelia
CAPĂȚ, Mirela PANAINTE, Emilian MOSNEGUTU,
Carmen SAVIN: **STUDIES AND RESEARCH
REGARDING EFFICIENCY IMPROVEMENT OF
THE DISTRICT HEATING SYSTEM AND HEAT
SUPPLY IN AN URBAN AGLOMERATION IN
ROMANIA. STUDY CASE FOR THE CHP PLANT IN
BACAU**
.....123



DATA BASES



• According to paragraph 2.6 of license agreement between EBSCO Publishing Inc. (U.S.A.) and FUNDATIA METALURGIA ROMÂNĂ (ROMÂNIA) the journals METALURGIA and METALURGIA INTERNATIONAL are included in EP Products, starting from July 1st, 2006.
• These journals are included on EBSCO's site: www.ebscohost.com, chapter „Computers and Applied Sciences Complete”, positions 1026 and 1027.
• Starting from January 1st, 2007 the journal METALURGIA INTERNATIONAL is also in the SCOPUS database, belonging to ELSEVIER BIBLIOGRAPHIC DATABASES – Amsterdam (Netherlands).

• We inform our authors and readers that now our magazine “METALURGIA INTERNATIONAL” is introduced in **THOMSON SCIENTIFIC MASTER JOURNAL LIST**, letter M, position 400. For next information please access www.isinet.com position <http://scientific.thomson.com/cgi-bin/jrnlst/ilresults.cgi>

METALURGIA INTERNATIONAL is evaluated by Romanian Council for Research and Development in Universities into category “A” (see CNCISIS Website).

• The publisher is honoured to inform the readers and authors that beginning with volume XII (2007), METALURGIA INTERNATIONAL is indexed and abstracted in the following:

- Science Citation Index Expanded (also known as Sci Search*)
- Journal Citation Reports/Science Edition

These elements represent Thomson Reuters products and custom information services.

- The “METALURGIA INTERNATIONAL” magazine receives manuscripts of papers including basic scientific research and industrial research in the following fields: metallurgy, materials science and engineering and different relating processes.
- Original papers not previously publishing in any other journal, or not sent for publishing before, are accepted.
- After publication, the copyright is transferred to the publishing house.
- Every manuscript will be referred, their reports form the basis of the Editor's decision.

- The manuscripts sent to the Editor will not returned to the author, even they are not by published.

- The manuscripts will be sent to the following address:

METALURGIA INTERNATIONAL
83, Calea Griviței, sector 1, Postal code 010705, postal
office 12

Bucharest, Romania

Tel.: +(40)-021-310 71 38; +(40)-021-0722 665 071;

Fax: +(40)-021-310 71 38

E-mail: redactia@metalurgia.ro; See also web:

www.metalurgia.ro

