EDITORIAL BOARD

Publisher
HORIA IOVU
Politehnica University Bucharest

Publisher Assistant
Anton HADAR
Politehnica University Bucharest
Kamel EARAR
Dunarea de Jos University of Galati

MEMBERS

Ion ABABII
University of Medicine and Pharmacy
N. Testemitanu, Chisinau, REPUBLICA MOLDOVA

Robert ADAMS
Bristol University, UK

Iulian BIRSAN
University Dunarea de Jos of Galati, ROMANIA

Ilare BORDEASU
Politehnica University Timisoara, ROMANIA

Igor CATIC
University of Zagreb, CROATIA

Alberto D'AMORE
University of Naples - SUN, Aversa ITALIA

Catalin FETECAU
University Dunarea de Jos of Galati, ROMANIA

Cosmin JINESCU
University Politehnica Bucuresti, ROMANIA

Valeriu V. JINESCU
University Politehnica Bucuresti, ROMANIA

Gad MAROM
The Hebrew University of Jerusalem, ISRAEL

Walter MICHAELI
Institut fur Kunststoffverarbeitung Aachen, GERMANY
CONTENTS

ANDREEA IRINA BARZIC, MARIUS SOROCEANU, RAZVAN ROTARU, VALERIA HARABAGIU, ROMEO CRISTIAN CIOBANU
Optical Dispersion Characteristics of Polyvinyl Alcohol Reinforced with a Nanoceramic Filler .............................................. 1

ANTONIS S. PERDIOU, ROZAN ALAM EL DIN, KARIN ROXANA HAJAJ, MIHAI ROMINU, COSMIN SINESCU, MEDA LAVINIA NEGRUTIU, RADU MARCEL NEGRU, TAREQ HAJAJ
A Comparative Evaluation of Stress Resistance Between Nano-hybrid Composite and Ormocer Restorations on Posterior Teeth - in vitro Study .................................................. 8

ADELINA HRTUC, ANDREI MIHALACHE, MARIAN MARES, MARGARETA COTEATA, OANA DODUN, GHEORGHE NAGIT, LAURENTIU SLATINEANU
Mechanical Behaviour of 3D Printed PLA Hollow Spherical Parts Under Axial Compression ........................................... 13

OANA DODUN, LAURENTIU SLATINEANU, GHEORGHE NAGIT, MARIAN MARES, ADELINA HRTUC, MARGARETA COTEATA, IRINA BESLIU BANCESCU
Mechanical Properties of Composites Reinforced with Textile ......................................................................................... 21

VASILIY CHERKASOV, YUIY YURKIN, VALERY AVDONIN, DMITRIY SUNTSOV
Self-adhesion X-ray Shielding Composite Material of EPDM Rubber with Barite: Mechanical Properties .......................... 28

COSMIN MIHAI MIRITOIU, MARIUS MARINEL STANESCU, DUMITRU BOLCU
Researches Regarding the Mechanical Properties of a New Hybrid Vegetal Resin ........................................................... 37

DANIEL V. STAN
Considerations on the Drying of the Raw Material and Consequences on the Quality of the Injected Products ...................... 46

FLORIN SUSAC, FELICIA STAN
Experimental Investigation, Modeling and Optimization of Circularity, Cylindricity and Surface Roughness in Drilling of PMMA Using ANN and ANOVA ........................................................................ 57

ALEXEY VOLOTSKOY, YURIY YURKIN, VALERIY AVDONIN
New Thermoplastic Damping Polymeric Materials Based on Ethylene-Vinyl Acetate ......................................................... 69

LEANDRO IORIO, LOREDANA SANTO, FABRIZIO QUADRINI, DENISE BELLISARIO, DAVID BENEDETTI, JACOPO AGNELLI
Carbon Fiber Laminates with Interlaminar Carbon Nanotubes ......................................................................................... 80

LOREDANA SANTO, DENISE BELLISARIO, LEANDRO IORIO, CLAUDIA PAPA, FABRIZIO QUADRINI, DAVID BENEDETTI, JACOPO AGNELLI
Composite Laminates with Recycled Carbon Fibres and Carbon Nanotubes ................................................................. 86

PAUL GHIoca, RAMONA MARINA GRIGORESCU, LORENA IANCU, RODICA-MARIANA ION, MADALINA-ELENA DAVID, MIRCEA IOAN FILIPESCU, ELENA RAMONA ANDREI, BOGDAN SPURCACIU, CRISTIAN-ANDI NICOLAE, RALUCA GABOR
Composites of Styrene-Butadiene Block-Copolymer Reinforced with Waste Printed Circuit Boards (WPCB) ................. 92

ANA-MIHAELA (FLOREA) GAVRILA, TANTA-VERONA IORDACHE, CATHERINE BRANGER, HUGUES BRISSET, KATRI LAATIKAINEN, ANA LORENA CIURLICA, ANAMARIA ZAHARIA, ANITA LAURA RADU, ALINA-ELENA COMAN, SIMONA FLOR, ANDREI SARBU
The Effect of Monomers on the Recognition Properties of Molecularly Imprinted Beads for Proto-hypericin and Proto-pseudohypericin .................................................................................. 100

ELENA VALENTINA STOIAN
Researches Regarding the Compression of the Films Polymers in Composite System ...................................................... 112

ADRIANA-MARIANA BORS, ALINA-RUXANDRA CARAMITU, DORIAN MARIN, IOSIF LINGVAY
The Hydropihy of Some Lacquers for Electrical Use ........................................................................................................ 122

DUMITRU BOLCU, MARIUS MARINEL STANESCU, ION CIUCA, COSMIN MIHAI MIRITOIU, ALIN DINITA, ALEXANDRU BOLCU
A Study Regarding the Mechanical Properties of a Hybrid Matrix with Various Volume Proportions of Dammar .......................................................... 133

MARC JM ABADIE, IULIAN MANOLE, CATALIN FEtECaU
Photosensitive Formulation for Additive Manufacturing-3D Printing .................................................................................. 141

https://doi.org/10.37358/mp.20.1.5304
ANDREEA ELENA MUSTEATA, GEORGE PELIN, MIHAIL BOTAN, ADRIAN POPESCU, LORENA DELEANU
The Behavior of Polymeric Blends (PP + PA6) in Tensile Tests........................................153
CONSTANTIN PLACINTA, TUDOR CRISTIAN PETRESCU, VLAD GHIZDOVAT, STEFAN ANDREI IRRIMICIUC, DECEBAL VASINCU, MARICEL AGOP, VIOREL-PUIU PAUN
Polymer Dynamics Through Group Invariance of SL(2R) – Type in a Fractal Paradigm........167
EMILIAN-IONUT CROITORU, CRISTIN-OLIMPIU MORARIU, ADRIAN SOICA, GHEORGHE OANCEA
Composite Automobile Fender Impact Testing with a Spherical Ball........................................175
EDWIN SEVER BECHRIR, MIRCEA SUCIU, FARAH BECHRIR, FLORIN-DANIEL BERNEANU, ANAMARIA BECHRIR, ADRIAN TOHATI
Clinical Trial Concerning the Effectiveness of Two Types Dental Sealants in Children with Bruxism.............................191
VIRGIL GEAMAN, MIHAI ALIN POP, IRINEL RADOMIR, AUGUSTIN SEMENESCU, BOGDAN FLOREA, OANA ROXANA CHIVU
The Influence of Thermal Behaviour to Composites Based on Cotton Tissue and Unsaturated Polyester Resin...............................197
OANA CELLA ANDREI, IOANA TARLUNGEANU, LIVIA ALICE TANASESCU, ADRIANA BISO, MIHAI BURLIBASA, CATALINA FARCASIU, MAGDALENA NATALIA DINA, ADINA MAGDALENA BUNGET, RUXANDRA MARGARIT
Deformation Resistance of Palatal Plate Connectors in Removable Partial Dentures..........................202
MARIA RADA, DELIA MIRA BERCEANU-VAZU, MILAN DANIEL VELIMIROVICI, SIMONA DRAGAN, BIANCA MIHAI BERCEANU-VAZU, MARCEL MIHAI BERCEANU-VAZU, MATILDA RADULESCU, CRISTINA TUDORAN, ANA MARIA PAH, DANA EMILIA VELIMIROVICI
Research on the Effect of Aortic Valve Replacement with Mechanical Prosthesis on the Evolution of Ventricular Hypertrophy in Patients with Degenerative Aortic Stenosis...................................................209
CATALIN GHEORGHE BEJINARIU, SIRAMONA POPESCU, SERBAN DRAGOSLOVEANU, CARMEN GIUGLEA, SILVIU ADRIAN MARINESCU
Study on the use of polypropylene meshes for the correction of abdominal parietal defects during abdominoplasty...........................218
PUJA K GANGURDE, NAVYA AJITKUMAR BHASKARAN, RUCHI VERMA, JOBIN JOSE, LALIT KUMAR
Analytical Method Development Using Central Composite Design for Estimation of Lamotrigine in Lipid Nanoformulation..................................................223
RAUL GHIURCA, SMARANDA BUDURU, MARIUS BUD, RARES BUDURU, CRISTIAN CULCITCHI, MANUELA MANZICU, LAURA ZAHARIA, ANCA MESAROS
Adhesion Assessment Between Composites Using Three Different Protocols............................236
IMRE KISS, ANDREI MIHAI BACIU, ILARE BORDEASU, LAVINIA MADALINA MICU
Compressive Strength of Stripes and Flakes of Recycled Polyethylene Terephthalate (PET) Added Concrete .................................................................244
RALUCA MARIA VIERIU, OANA TANCULESCU, FLORENTINA MOCANU, SORINA MIHAELA SOLOMON, CARMEN SAVIN, DANA GABRIELA BOSINCEANU, ADRIAN DOLOCA, CRISTINA IORDACHE, GABRIELA IFTENI, IULIA SAVEANU1
In Vitro Study Regarding the Biomechanical Behaviour of Bone, Fibre Reinforced Polymer and Wire Composite Periodontal Splints. II. Model Analysis.........................................................253
ANDREI MIHAI BACIU, IMRE KISS, ILARE BORDEASU, LAVINIA MADALINA MICU
Compressive Strength of Woven and Strand of Recycled Polyethylene Terephthalate (PET) Reinforced Concrete .................................................................263
ADINA OANA ARMENCIA, LOREDANA LILIANA HURJUI, CRISTINA CLAUDIA TARNICERIU, IULIA SAVEANU, CARINA BALCOS
Tribochemical Behavior Simulation of Ceramic Material Using the Finite Element Analysis...............................272
IONUT SEBASTIAN VINTILA, TEODOR BADEA, SORIN DRAGHICI, HORIA ALEXANDRU PETRESCU, ANDREIA CUCURUZ2, HORIA IOVU, ANTON HADAR
Mechanical Characterization of DCPD and ENB Healing Systems in Glass Fibre Composites ............278
SORIN DRAGHICI, IONUT SEBASTIAN VINTILA, RADU MIHALACHE, HORIA ALEXANDRU PETRESCU, CATALIN STELIAN TUTA, ANTON HADAR
Design and Fabrication of Thermoplastic Moulds for Manufacturing CFRP Composite Impeller Blades........290
RUXANDRA MARGARIT, LIVIA ALICE TANASESCU, DANA BODNAR, CAMELIA GABRIELA ION, MIHAI BURLIBASA, ADRIANA BISOC, CATALINA FARCASIU, MAGDALENA NATALIA DINA, OANA CELLA ANDREI
Comparison of Fracture Resistance of Teeth Presenting Non-Carious Cervical Lesions, Restored with Different Composite Materials.................................................................299

RALUCA ELENA GINGHINA, DIONEZIE BOJIN, TUDOR VIOREL TIGANESCU, NICOLETA PETREA, SIMONA BUNGAU, DANUT-EUGENIU MOSTEANU
Research on the Efficiency of Testing a New Adsorbent Material with Cellulose Structure for the Depollution of Waste Water..................................................306

IONUT LUCHIAN, STEFANA NANU, IOANA MARTU, MARIA-ALEXANDRA MARTU, GIORGIO NICHITEAN, DIANA-CRISTALA KAPPENNER-G-NITSCU, GABRIELA GURAU, VICTORITA STEFANESCU, LILIANA PASARIN, MONICA TATARCIUC, SORINA-MIHAELEA SOLOMON
The Influence of the Composite Resin Material on the Clinical Working Time in Fiberglass Reinforced Periodontal Splints..........................................................316

CRISTIAN CONSTANTIN BUDACU, MAGDA-ECATERINA ANTOHE, VICTOR COSTAN, GHEORGHE RAFTU, GABRIELA GURAU, LILIANA LACRAMIOARA PAVEL, VICTORITA STEFANESCU
The Improvement of Polymer Structure Related to Radical Treatment of Alveolar Abcesses.........................................321

RALUCA MAIER
Study on Increasing Performances of Hybrid Composite Through Pull Out Compression Test Assessment ........329