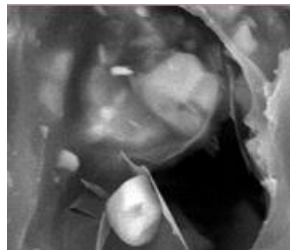


3<sup>rd</sup> International Conference on  
Rheology and Modelling of Materials

Miskolc-Lillafüred, Hungary  
October 2-6, 2017

**CONFERENCE PROGRAM**



# ic-rmm3 CONFERENCE DETAILED PROGRAM

## SESSIONS

1. Earth Rheology and Applied Rheology of Clays, Minerals, Rocks and Soils (ERARCMRS)
2. Rheology and Modeling of Polymers (RMP)
3. Food Rheology and Texture of Foods (FRTF)
4. Avalanche Dynamics in Rheology and Phase Transitions (ADRPT)
5. Experimental Study and Modeling of Complex Flows (ESMCF)
6. Rheology and Modeling of Asphalt Mixtures and Asphalt Pavements (RMAMAP)
7. Multiscale Mechanics of Materials (MMM)
8. Rheological Fluid Mechanics (RFM) (Including Micro and Nano Scale Phenomena)
9. Rheology of Biomaterials and Biological Systems (RBBS)
10. Rheology and Modeling of Concretes, Limes and Mortars (RMCLM)
11. Rheology of Emulsions, Suspensions, Colloids and Foams (RESCF)
12. Rheology of Ferrofluids and Magneto - Rheological Materials (RFMRM)
13. Rheology of Fluid Interfaces and Modeling (RFIM)
14. Rheology of Melts and Molten Materials (RMMM)
15. Rheology of Nanofluids (RNF)
16. Rheology of Cosmetics and Pharmaceutical Materials (RCPM)
17. Rheological Measurement – Methods, Equipments and Errors (RMMEE)
18. Rheology of Carbon Structures (RCS)
19. Rheology and Modeling of Complex Materials and Composites
20. Rheology and Molecular Dynamics Simulation of Ionic Liquids (RMDSIL)
21. Rheology of Nano-Powder Suspensions and Gels (RNPSG)
22. Ratio of the rheological and physicochemical properties of materials

## SYMPOSIUMS

is-emm1: The 1st International Symposium on Experimental Mechanics of Materials

is-fms1: The 1st International Symposium on Fractures and Mechanics of Solids

is-pim2: The 2nd International Symposium on Powder Injection Molding

## **ic-rmm3 CONFERENCE DETAILED PROGRAM**

<b>October 2. Monday</b>	<b>HUNYADI JÁNOS HALL</b>
<b>15:00 - 15:45</b>	<b>CONFERENCE OPENING</b>
<b>15:45 - 16:35</b>	<b>PLENARY 1.</b>
<b>16:35 - 17:15</b>	<b>KEYNOTE 1.</b>
<b>17:15 -18:00</b>	<b>WELCOME RECEPTION</b>

<b>October 3. Tuesday</b>	<b>HUNYADI JÁNOS HALL</b>
<b>8:30 - 10:00</b>	<b>PLENARY and KEYNOTE LECTURES II.</b>
<b>10:00 - 10:20</b>	<b>COFFEE BREAK</b>
<b>10:20 - 12:20</b>	<b>SESSION 1, 5, 6</b>
<b>12:20 - 14:00</b>	<b>BUFFET LUNCH</b>
<b>14:00 -19:00</b>	<b>SOCIAL PROGRAM I. - City tour</b>

<b>October 4. Wednesday</b>	<b>HUNYADI JÁNOS HALL</b>
<b>8:30 - 10:00</b>	<b>PLENARY and KEYNOTE LECTURES III.</b>
<b>10:00 - 10:30</b>	<b>POSTER SESSION I. and COFFEE BREAK</b>
<b>10:30 - 12:30</b>	<b>PIM 2 and SESSION 2</b>
<b>12:30 - 14:00</b>	<b>BUFFET LUNCH</b>
<b>14:00 -20:00</b>	<b>SOCIAL PROGRAM II. Castel tour in Tokai Wine Region</b>

## ic-rmm3 CONFERENCE DETAILED PROGRAM

October 5. Thursday	HUNYADI JÁNOS HALL	BEATRIX HALL
8:30 - 10:00	PLENARY and KEYNOTE LECTURES IV.	
10:00 - 10:20	COFFEE BREAK	
10:20 - 12:20	SESSION 3	
12:20 - 14:00	BUFFET LUNCH	
14:00 -16:00	is-emm1 and SESSION 10 and SESSION 19	
16:00 -16:20	COFFEE BREAK	
16:20 - 18:20	SESSION 9	SESSION 14, 16 and 22
18:20-19:00	BREAK	
19:30-20:00	CONFERENCE DINNER in HOTEL PALOTA at Lillafüred	

October 6.Friday	HUNYADI JÁNOS HALL
8:30 - 9:20	PLENARY V.
9:20 - 10:40	SHORT ORALS
10:40 - 11:20	POSTER SESSION II. and COFFEE BREAK
11:20 - 12:40	SESSION 11, 21
12:40 -13:10	CONFERENCE CLOSING Hand over of BEST POSTERS and BEST SHORT ORAL Awards.

## **ic-rmm3 CONFERENCE DETAILED PROGRAM– October 2. Monday**

**11:00 – 12:30** **ic-rmm3 Conference Board Meeting (Renesanzs Hall)**  
Prof. Dr. Laszlo A. GÖMZE, chair of **ic-rmm3** Conference

### **OPENING CEREMONY, PLENARY and KEYNOTE LECTURES I.**

**Chair:** Prof. Dr. Sergei N. KULKOV, Tomsk State University (Russia)

**15:00 – 15:05** **ic-rmm3 Conference Opening**  
Prof. Dr. Sergei N. KULKOV, (Russia)

**15:05 – 15:15** **General Information**  
Miss Emese KUROVICS – University of Miskolc (Hungary)

**15:15 – 15:45** **Journal Építőanyag - JSBCM**  
**Welcomes the Participants of ic-rmm3 Conference**  
Prof. Dr. László A. GÖMZE – University of Miskolc (Hungary)  
Perident of the International Editorial Board

**15:45 – 16:35** **PLENARY LECTURE – 1<sup>ST</sup>**  
**Mathematical modeling of rheological and electro-chemical properties of clays**  
Prof. Dr. Maxim KHRAMCHENKOV – Kazan Federal University (Russia)

**16:35 – 17:15** **KEYNOTE LECTURE – 1<sup>ST</sup>**  
**On the elastic deformation around holes, dislocations and cracks evaluated within a finite strain approach**  
Dr. Martin LEDERER Vienna University of Technology (Austria)

**17:15 – 18:00** **Welcome Reception**  
Prof. Dr. Laszlo A. GÖMZE, chair of **ic-rmm3** Conference

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 3. Tuesday

October 3. Tuesday	HUNYADI JÁNOS HALL
8:30 – 10:00	PLENARY and KEYNOTE LECTURES II.
10:00 – 10:20	COFFEE BREAK
10:20 – 12:20	SESSION 1, 5, 6
12:20 – 14:00	BUFFET LUNCH
14:00 -19:00	SOCIAL PROGRAM I. - City tour

<b>HUNYADI JANOS HALL</b>	
<b>PLENARY and KEYNOTE LECTURE II.</b> <b>Chair: Dr. Martin LEDERER,</b> <b>Vienna University of Technology (Austria)</b>	
8:30 - 9:20	<b>Rheology of porouse zirconia/alumina ceramics for biomedical applications</b> Sergei Kulkov - Tomsk State University, (Russia)
9:00 - 10:00	<b>Key role of the liquid-solid surface interactions to reveal hidden elastic properties in liquids</b> Laurance Noirez - CEA-Saclay, Laboratoire Léon Brillouin, (France)
10:00 – 10:20	<b>COFFEE BREAK</b>
<b>ORALS PRESENTATIONS</b> <b>SESSION 1, 5 and 6</b> <b>Chair: Prof. Dr. Maxim Khramchenkov,</b> <b>Kazan Federal University (Russia)</b>	
10:20 - 10:40	<b>Rheological parameters of some soil samples before and after H2O2 treatment</b> Dolgor Khaydapova, Liesl Wiese, Andrei Rozanov, Evgeny Milanovskiy
10:40 - 11:00	<b>Effects of lateral variations of crustal rheology on the occurrence of post-orogenic normal faults: the example of Alto Tiberina Fault (Northern Apennines, Central Italy).</b> Cristina Pauselli, Giorgio Ranalli
11:00 - 11:20	<b>Significance of rheology characterisation in mineral flotation process performance</b> Saeed Farrokhpay
11:20 - 11:40	<b>Design, Fabrication and Implementation of a Portable Swedish Weight Sounding Test Device for Soil Compaction Analysis</b> Joel T. Maquiling, Johann Wolfgang T. Exconde
11:40 - 12:00	<b>Rheological properties of conventional asphalt modified with styrene-butadiene-styrene crosslinked with sulfur</b> Martin Jassoa, Dusan Bakosb, Jiri Stastnaa, Ludovit Zanzottoa
12:00 - 12:20	<b>Utilization of aluminum dross as asphalt filler</b> Bella Udvardi, Róbert Géber, Zoltán Soós, Csaba Tóth, Zsuzsanna Igazvölgyi, Andrea Simon

12:20-14:00

**LUNCH**

14:00-19:00

**SOCIAL PROGRAM I. and Free Program**

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 4. Wednesday

October 4. Wednesday	HUNYADI JÁNOS HALL
8:30 – 10:00	PLENARY and KEYNOTE LECTURES III.
10:00 – 10:30	POSTER SESSION I. and COFFEE BREAK
10:30 – 12:30	PIM 2 and SESSION 2
12:30 – 14:00	BUFFET LUNCH
14:00 -20:00	SOCIAL PROGRAM II. Castel tour in Tokai Wine Region

HUNYADI JANOS HALL	
<b>PLENARY and KEYNOTE LECTURE III.</b> <b>Chair: Prof. Dr. Vasily Lebedev,</b> <b>Petersburg Nuclear Physics Institute (Russia)</b>	
8:30 - 9:20	<b>Some Rheological and Mechanical Aspects of Rolling Sheets from Molten Metals and Alloys</b> László A. Gömze - University of Miskolc, (Hungary)
9:00 - 10:00	<b>Red blood cell properties are the basis of the newtonian behaviour of whole blood in camelus dromedaries</b> Ursula Windberger, Roland Auer, Dina Baier, Julian Skidmore - Medical University Vienna, (Austria)
10:00 – 10:20	<b>POSTER SESSION I. and COFFEE BREAK</b>

<b>POSTER SESSION I.</b> <b>Chair: Prof. Dr. Anil Saigal and Prof. Dr. Valery Kulichikhin,</b> <b>Tufts University (USA) and Russian Academy of Sciences (Russia)</b>	
1.	<b>An apparatus for measuring thermal conductivity: a prototype</b> Pauselli C., Mancinelli P., Bizzarri M., Papi A., Scolieri G., Franco A., Ranalli G.
2.	<b>Rheological Study of Concentrated Dispersions. Application to the Drilling Fluid.</b> Hocine Ouaer, Mourad Gareche, Ahmed Allal
3.	<b>Treatment of discharges and all polymetallic mining excipients For the recovery of rare earths: Case of the Germanium in the prospecting phase in Algeria</b> Souad BENTAALLA-KACED, Karima DERAMCHI, Abdelaziz BOUTRID, Samira BOUTRIA
4.	<b>The Germanium strategic element for the Algerian economy</b> Karima DERAMCHI, Souad BENTAALLA-KACED, Samira BOUTRIA
5.	<b>The plasticity of red mud and clay mixtures</b> István Kocserha, Alexandra Hamza
6.	<b>Comparison of hardening kinetics by small amplitude oscillatory rheometry in the case of alkali activated kaolinitic clays and fly ash binders</b> David Rieger, Tomáš Kovářík, Michal Pola and Petr Franče
7.	<b>The effect of milled basalt fibers addition on rheological and mechanical properties of alkali activated binder</b> David Rieger, Tomáš Kovářík, Michal Pola and Petr Franče

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 4. Wednesday

8.	<b>Momentum coupling at laser ablation of liquids in a porous matrix</b> Egor Loktionov
9.	<b>Design, Fabrication and Implementation of a Portable Swedish Weight Sounding Test Device for Soil Compaction Analysis</b> Joel T. Maquiling, Johann Wolfgang T. Exconde
10.	<b>Rheological characteristics of bitumen mastic depending on composition and filler dispersity</b> Lebedev Mikhail Sergeevich, Kozhukhova Natalia Ivanovna
11.	<b>Modeling Three-Dimensional Flow of the Polymer Melts in a Converging Channel</b> Alexander Kuznetsov, Konstantin Koshelev, Nadezda Cherpakova, Grigory Pyshnograï
12.	<b>Influence of silicon oxide (SiO<sub>2</sub>) and sulfosuccinic acid (SSA) loading on properties of poly(vinyl alcohol) (PVA) derived composite membranes</b> Tomáš Remiš
13.	<b>Comparison of thermoforming simulation and real experiment using true 3D approach</b> Ladislav Fojtl, Karel Kouba, Michal Gerza, Lukáš Maňas, Tomáš Sedláček
14.	<b>Simulation of Extrudate Swell during Polymer Foam Extrusion</b> Roman Kolarik, Tomas Sedlacek, Ondrej Kratky
15.	<b>The Effect of Temperature on Rheological Behaviour of the Chocolate</b> Vojtěch Kumbár, Šárka Nedomová, Roman Pytel, Jaroslav Buchar
16.	<b>Management of Process of Machining on Machines with CNC on the Basis of Dynamic Modelling of Technological System</b> Viacheslav Maksarov, Aleksei Khalimonenko, Jüri Olt
17.	<b>Stress Distribution of a New Type Perforated Implants in Femur Neck Fractures: Finite Element Model</b> Afgan Jafarov, Chingiz Ali-Zadeh, Zafer Özer, Amirullah M. Mamedov and Ekmel Özbay
18.	<b>Wave Propagations in Metamaterial Based 2D Phononic Crystal: Finite Element Modeling</b> Oğuzhan ÖZER, Zafer ÖZER, Muharrem KARAASLAN, Amirullah M. MAMEDOV, Ekmel ÖZBAY
19.	<b>Ab initio Modeling of Elastic and Optical Properties of Sb and Bi Sesquioxides</b> Husnu Koc, Amirullah M. Mamedov, Ekmel Ozbay
20.	<b>Influence of polyhedral oligomeric silsesquioxane particles on the thermomechanical behaviour of epoxy resin</b> Tomas Plachy, Erika Kutalkova, Miroslav Mrlik
21.	<b>The optimum period introducing to increase the capacity of the railway by the net present value criterion (NPV)</b> Hakim Siguerdjidjene
22.	<b>Numerical Simulation of Mechanical Behaviour of Concrete under Shock Wave Loading</b> Valerii V. Karakulov, Igor Yu. Smolin, Sergei N. Kulkov
23.	<b>The temperature distribution of the reinforced concrete structures at early age</b> Erzsébet Domonyi, Gábor Telekes, Béla M Csizmadia
24.	<b>Mechanical and optical properties of hybrid materials based on inorganic glass matrix and organic metal complex phosphors</b> Igor Avetissov, Olga Petrova, Maria Anurova, Andrew Khomyakov, Alina Akkuzina, Ilya Taidakov
25.	<b>High-productivity thermal sputtering of metal particles in the liquid</b> A.A. Pshenichnaya, N.P. Shestakov, A.A. Ivanenko, M.N. Volochaev
26.	<b>Influence of High Temperature and Pressure on Physico-Chemical and Rheological Properties of Pectin Substances</b> Gorshkova R.M., Khalikov D.Kh., Yulusova D.V., Uspensky A.A., Slobodov A.A.
27.	<b>Physico-Chemical and Hydrodynamic Properties of Pectin Substances in Non-Traditional Plant Raw Materials</b> Gorshkova R.M., Khalikov D.Kh., Mukhidinov Z.K., Jonmurodov A.S., Yulusova D.V., Uspensky A.B., Slobodov A.A.



**HUNYADI JANOS HALL****ORALS PRESENTATIONS****PIM2 and Session 2****Chair: Prof. Dr. Valery Kulichikhin,  
Russian Academy of Sciences(Russia)**

<b>10:30 - 10:50</b>	<b>TA Instruments</b> Daniël Roedolf, sales director
<b>10:50 - 11:10</b>	<b>Performance analysis of the simulation of powder injection molding</b> Ivica Duretek, Nina Krempf, Thomas Lucyshyn, Michael Meister, Clemens Holzer
<b>11:10 - 11:30</b>	<b>Viscoelastic rheology in gels and polymers with uniaxial preferred directions due to nematic, magnetic, polar nematic, and active polar order</b> Harald Pleiner, Daniel Sventšek, Helmut R. Brand
<b>11:30 - 11:50</b>	<b>Experimental Imitation of Elastic and Plastic Stretching of Polymer Solution During Electrospinning as a Method for an Estimation</b> Arkadii Arinstein, Michael Burman, Gleb Vasilyev, Eyal Zussman
<b>11:50 - 12:10</b>	<b>Effects of volume fraction, size and geometry of different fillers on interparticle interactions in LDPE melts</b> Nico Laufer, Harald Hansmann, Christian Boss, Stefan Ofe
<b>12:10 - 12:30</b>	<b>The effect of nano-silica on physical properties of drilling fluid</b> Samireh Vahid, Doni Doniel, Mohomad Ajmal
<b>12:30 - 12:50</b>	<b>Biocomposites in 3D Printing</b> J. V. Ecker, A. Haider, B. Plank, A. Petutschnigg, M. Kracalik, S. Hild, P. Pammer

**12:50-14:00****LUNCH****14:00-19:30****SOCIAL PROGRAM II. and Free Program**

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 5. Thursday

October 5. Thursday	HUNYADI JÁNOS HALL	BEATRIX HALL
8:30 – 10:00	PLENARY and KEYNOTE LECTURES IV.	
10:00 – 10:20	COFFEE BREAK	
10:20 – 12:20	SESSION 3	
12:20 – 14:00	BUFFET LUNCH	
14:00 -16:00	is-emm1 and SESSION 10 and SESSION 19	
16:00 -16:20	COFFEE BREAK	
16:20 – 18:00	SESSION 9	SESSION 14, 16 and 22
18:00-19:00	BREAK	
19:00-22:00	CONFERENCE DINNER in HOTEL PALOTA at Lillafüred	

HUNYADI JANOS HALL	
<p align="center"><b>PLENARY and KEYNOTE LECTURE IV.</b>  <b>Chair: Prof. Dr. László A. GÖMZE,</b>  <b>University of Miskolc (Hungary)</b></p>	
8:30 - 9:20	<p><b>Rheology and Modeling of Polymers</b>  Valerii Kulichikhin Russian Academy of Sciences (Russia)</p>
9:20 - 10:00	<p><b>Advances in characterization of polymer nanocomposites</b>  Milan Krcalik Johannes Kepler University Linz (Austria)</p>
10:00 – 10:20	<b>COFFEE BREAK</b>
<p align="center"><b>ORALS PRESENTATIONS</b></p> <p align="center"><b>SESSION 3</b>  <b>Chair: Prof Dr. Valentina Pavlova,</b>  <b>University St. Kliment Ohridski (Macedonia)</b></p>	
10:20 - 10:40	<p><b>A rheological study of binary protein-polysaccharide mixtures: Gelation kinetics and phase transition</b>  T. B. Goudoulas and Natalie Germann</p>
10:40 - 11:00	<p><b>Mechanical behavior of crystallized vegetable oil in presence of solid particles</b>  Henri de Cagny, Theo Blijdenstein, Simeon Stoyanov, Luben Arnaudov, Daniel Bonn</p>
11:00 - 11:20	<p><b>Modelling the rheology of HM pectin gels filled with different dietary fibers</b>  Diego Genovese, Lilian Figueroa</p>

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 5. Thursday

11:20 - 11:40	<b>The steady and oscillatory frequency sweep tests of ultrasound-assisted emulsified O/W emulsion: Taguchi optimization</b> Duygu Aslan, Mahmut Doğan
11:40 - 12:00	<b>Hydrocolloids as rheology control additives</b> Valentina Pavlova, Zoran Pavlov, Martina Pavlovska, Marija Menkinoska, Tatjana Blazhevaska
12:00 - 12:20	<b>Transitional Shear Flow of Elastic Chains</b> Abbas Sheikh

12:20-14:00

LUNCH

### HUNYADI JANOS HALL

#### ORALS PRESENTATIONS

is-emm1 and SESSION 10 and 19

Chair: Prof. Dr. Sergei Kulkov,

Institute of strength physics and materials science SB RAS(Russia)

14:00 - 14:20	<b>Non-Monotonic Sections in Kinetics of RPV Steel Embrittlement as a Sign of Material Smart Behavior</b> Evgenii Krasikov
14:20 - 14:40	<b>Mathematical modeling of the material structure of the resonator and its influence on biological objects</b> Gennadij Lukyanov, Alexander Kopyltsov, Konstantin Korshunov, Natalia Dyuzhikova, Vera Puchkova, Igor Serov
14:40 - 15:00	<b>Influence of initial stress on the propagation of SH-type in an heterogeneous fibre reinforced cylindrical Earth Modal</b> Shalini Saha
15:00 - 15:20	<b>Investigation of physicochemical properties and viscosity of antimonoxychloride glasses</b> Messaoud Legouera, Mostafa Lezid, Petr Kostka, Feyala Rahal, Faissal Goumeidane, Marcel Poulain
15:20 - 15:40	<b>Rheology model of powder layer evolution under the external heating</b> Anna Knyazeva Knyazeva A.G., Pribytkov G.A Knyazeva Anna, Travizky Nahum
15:40 - 16:00	<b>Shear Deformation at Repeatative Frictional Loading of Material with a Sliding Spherical Indentor with Heat Sink</b> Viktor Kuznetsov, Andrey Skorobogatov

16:00-16:20

COFFEE BREAK

**HUNYADI JANOS HALL**

**ORALS PRESENTATIONS**

**Session 9**

**Chair: Prof. Dr. Edtson Emilio Herrera-Valencia,  
UNAM Chemical Engineering(Mexico)**

<b>16:20 - 16:40</b>	<b>Wall mechanical properties of an intracranial aneurysm: the experiments and numerical simulations</b> Daniil Parshin, Iuliia Kuianova
<b>16:40 - 17:00</b>	<b>4D MRI flowmetry of a swirling flow through an elastic tube: experimental results</b> Daniil Parshin , Alexander Cherevko, Nikita Denisenko, Alexander Khe and Alexander Chupakhin
<b>17:00 - 17:20</b>	<b>Effect of Slip Conditions on the Pulsating Flow of Structured Fluid: Human Blood with Different Levels of Cholesterol</b> E. E. Herrera-Valencia, M.L. Sanchez-Villavicencio, F. Calderas, C. Soriano
<b>17:20 - 17:40</b>	<b>Hydrodynamic Properties of Pectic Polysaccharides of Different Raw Materials</b> Raisa Gorshkova, Djurabai Khalikov, Dara Yulusova, Alexander Slobodov
<b>17:40 - 18:00</b>	<b>Characterization of shear and extensional rheology of juice-fibre suspensions</b> Siti N. M. Rozali, A. H. J. Paterson, J. P. Hindmarsh, Lee M. Huffman

**BEATRIX HALL**

**ORAL PRESENTATIONS**

**SESSION 14, 16 and 22**

**Chair: Prof. Dr. Alexander Slobodov,  
ITMO University (Russia)**

<b>16:20 - 16:40</b>	<b>Influence of the Laser Heated Spots on the Flow Line Formation In CT120 Steel</b> Olga V. Nozdrina, Alexander G. Melnikov, Ilya Yu. Zykov
<b>16:40 - 17:00</b>	<b>Molecular-mass and Hydrodynamic Parameters of Sunflowers Pectic Polysaccharides Obtained by Various Methods</b> Gorshkova R.M. Khalikov D.Kh. Yulusova D.V., Slobodov A.A
<b>17:00 - 17:20</b>	<b>Mathematical Modeling of Protopectine Decay Process in Plant Raw Materials</b> Gorshkova R.M., Khalikov D.Kh., Yulusova D.V., Uspensky A.B., Slobodov A.A.
<b>17:20 - 17:40</b>	<b>From Nuclear to Cogeneration Or how a natural disaster can change the Policy of a country</b> MELLAK Abderrahmane

**18:00-19:00**

**BREAK**

**19:00-**

**CONFERENCE DINNER**

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 6. Friday

October 6.Friday	HUNYADI JÁNOS HALL
8:30 – 9:20	PLENARY V.
9:20 – 10:40	SHORT ORALS
10:40 – 11:20	POSTER SESSION II. and COFFEE BREAK
11:20 – 12:40	SESSION 7,11 and 21
12:40 -13:10	CONFERENCE CLOSING Handover of BEST POSTERS and BEST SHORT ORAL Awards.

HUNYADI JANOS HALL	
<b>PLENARY LECTURE V.</b> <b>Chair: Prof. Dr. Amirullah Mamedov,</b> <b>Bilkent University (Turkey)</b>	
8:30 - 9:20	<b>Investigation of Liquid Crystal Polymer Structure-Property Relationships Between Crystal Orientation and Dielectric Behavior</b> Anil Saigal - Tufts University, (USA)

<b>SHORT ORAL PRESENTATIONS I.</b> <b>Chair: Prof. Dr. Amirullah Mamedov,</b> <b>Bilkent University (Turkey)</b>	
9:20 - 9:25	<b>In situ testing of rail damages in accordance with Industry 4.0</b> Tünde Kovács, Zoltán Nyikes, Dániel Tokody
9:25 - 9:30	<b>Galvanic Corrosion Propagation Experimental Possibility by Thermographic Camera</b> Ferenc Haraszti, Tünde Kovács
9:30 - 9:35	<b>The tungsten single crystal electrophysical properties.</b> M.L. Taubin, E.S. Solntseva
9:35 - 9:40	<b>Influence of fiber distribution characteristics on the rheological properties of steel fiber reinforced concrete (SFRC)</b> Hui Li, Huisu Chen, Ru Mu
9:40 - 9:45	<b>Effect of Temperature on the rheological properties of bentonite-water suspensions</b> N. Azril, M.Gareche, L. Saoudi, A. Allal, N.Zeraibi
9:45 - 9:50	<b>Investigation of paint misses at the coilcoating line using rheological methods</b> Sara Lairah Mugabo, Eifion Jewell, Justin Searle, Joel Rosseau
9:50 - 9:55	<b>Use of a control system based on magnetorheological dampers for the reduction of lateral displacements in three different framed structures</b> Luis Lara-Valenciaa, Yamile Valencia-Gonzalezb, David Bedoya-Zambranoc
9:55 - 10:00	<b>Titanium-based composite synthesis in the combustion regime</b> Knyazeva A.G., Pribytkov G.A.
10:00 - 10:05	<b>Model of LZSA layers bonding during LOM-process</b> Knyazeva Anna, Travizky Nahum
10:05 - 10:10	<b>Structure and properties of Al - ZrW2O8 pseudo alloys</b> Vladimir Shadrin, Sergey Kulkov

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 6. Friday

10:10 - 10:15	<b>Flow activation energy dependence of segment size, shear rate, shear stress based on shear viscosity measurement and modelling</b> Gergely Toth, Attila Bata, Karoly Belina
10:15 - 10:20	<b>Measuring viscosity of polyethylene blends using a rotational rheometer</b> Dorottya Nagy, Tamás Dugár
10:20 - 10:25	<b>Rheological Properties of Recycled PET</b> Károly Belina, Attila Bata
10:25 - 10:30	<b>Determination of pressure dependency of shear viscosity of polyethylene terephthalate melt</b> Dugár Tamás, Belina Károly, Nagy Dorottya
10:30 - 10:35	<b>Flow structures in a swirl flow – vortex breakdown condition</b> Pavel Novotny, Bernhard Weigand, Frantisek Marsik, Christoph Biegger, Martin Tomas
10:35 - 10:40	<b>About hard turning of welded surface by using tool with closed system of heat sink</b> V.P. Kuznetsov, A. S. Skorobogatov, V.V. Voropaev, A.A. Petunun

10:40 – 11:20

POSTER SESSION II. and COFFEE BREAK

<p><b>POSTER SESSION II.</b>  <b>Chair: Prof. Dr. Anil Saigal and Prof. Dr. Valery Kulichikhin,</b>  <b>Tufts University (USA) and Russian Academy of Sciences (Russia)</b></p>	
1.	<b>Calculation of the Effective Properties of Ti Based Composites</b> Mariia A. Anisimova, Igor Sevostianov, Anna G. Knyazeva
2.	<b>The non-isothermal mathematical model of ion implantation process into the target with coating</b> Elena S. Parfenova, Anna G. Knyazeva
3.	<b>Modeling of Bone Tissue Structure and Porous Ceramics</b> Tatyana Kolmakova, Svetlana Buyakova, Sergey Kulkov
4.	<b>Biomechanical Evaluation of Lumbosacral Segments Response under Physiological Functions: Finite Element Analysis</b> Mosbah Moustafa, Bendoukha Mohamed
5.	<b>Calculation of the Effective Properties of Ti Based Composites</b> Mariia A. Anisimova, Igor Sevostianov, Anna G. Knyazeva
6.	<b>Hetero-Modulus and Hetero-Viscous Alumina Matrix Composites with Extreme Dynamic Strength</b> László A. Gömze, Ludmila N. Gömze, Emese Kurovics, Sergey A. Sitkevich and Bronislav I. Kanev
7.	<b>Peculiarities of rheological behavior of the dielectric suspensions of hydrated metal oxides with layered structure in the electric field</b> Ludmila Eshchenko, Evguenia Korobko, Zoya Novikova
8.	<b>Experimental Study of the Viscoelastic Properties of the Concentrated Colloids</b> Mourad Gareche, Nadjat Azril, Leila Saoudi, Nouredine Zeraibi
9.	<b>An End-Bifunctionalized Telechelic Associative Model Polymer: Multiple Stimuli-Responsive Aggregation and Rheology in Aqueous Solution</b> Zhukang Du, Renfeng Dong, Biye Ren
10.	<b>Ferrous oxalate micro-rods as a promising material for electrorheology</b> Martin Cvek, Tomas Plachy, Josef Osicka, Erika Kutalkova, Miroslav Mrlik, Michal Sedlacik
11.	<b>Design of hydraulic clutch with magnetoreological working fluid</b> Marcin Migus
12.	<b>Effect of carbon nano-additives on performance and stability properties of magnetorheological fluids</b> Martin Cvek, Miroslav Mrlik, Michal Sedlacik

## ic-rmm3 CONFERENCE DETAILED PROGRAM – October 6. Friday

13.	<b>Simulation of Heat Flow in Viscotic Clutch with Electrorheological Fluid</b> Karol Osowski, Przemysław Motyl, Artur Olszak, Zbigniew Kęsy, Andrzej Kęsy
14.	<b>Modelling of Hydraulic Clutch with Electrorheological Working Fluid</b> Artur Olszak, Karol Osowski, Zbigniew Kęsy, Andrzej Kęsy
15.	<b>Magneto-Rheological Elastomers Based on EPDM with Sponge-Like Structure</b> Michal Sedlacik, Tomas Plachy, Ondrej Kratina
16.	<b>Rheological characteristics of bitumen mastic depending on composition and filler dispersity</b> Lebedev Mikhail Sergeevich, Kozhukhova Natalia Ivanovna
17.	<b>Computer Modeling of Intervertebral Disc Prosthesis</b> Yuliya Rikun, Tatyana Kolmakova, Svetlana Buyakova, Sergey Kulkov
18.	<b>The effect of the sampling distance of the roughness parameters in a case of abrasive worn microtopographies</b> István Barányi
19.	<b>Influence of compacting times and pressures on rheological properties of alumina and quartz ceramic powder mixtures</b> László A. Gömze, Emese Kurovics and Ludmila N. Gömze
20.	<b>Effects of zirconia particle addition on the mechanical properties of NiCoZn ferrites</b> Andrea Balla, János Moczó, Szilvia Klébert, Zoltán Károly
21.	<b>Ceramics with hierarchical porous structure based on aluminum oxide</b> Ruslan Levkov, Nina Pigaleva, Sergey Kulkov
22.	<b>Testing of smart fluid intended for damper protecting buildings against earthquakes</b> K. Skrzek, A. Keszy
23.	<b>Changing the rheo-mechanical models of Al-Ti light metal powders under uniaxial compaction</b> László A. Gömze, Emese Kurovics, Sergey A. Sitkevich and Bronislav I. Kanev
24.	<b>n-line Rheo-optical Characterization of Polymer Systems at Constant Extrusion Conditions: Application to Microstructure and Thermally Sensitive Polymers</b> Paulo Teixeira, Loic Hilliou and José Covas

## **ic-rmm3 CONFERENCE DETAILED PROGRAM – October 6. Friday**

**10:40 – 11:00**

**COFFEE BREAK**

### **HUNYADI JANOS HALL**

**ORALS PRESENTATIONS  
SESSION 7, 11 and 21  
Chair: Prof. Dr. Emad EWAIS,  
Central Metallurgical R& D Institute(Egypt)**

<b>11:20 - 11:40</b>	<b>Rheological Behaviour of Drying Screen Printing Inks and their Final Properties</b> Robert Mücke, Julian Folz, Olivier Guillon
<b>11:40 - 12:00</b>	<b>SiC and AlN dispersions in aqueous media in presence of different surfactants: Zeta potential and rheology</b> Emad Ewais, Dina H. Amin, Thomas Fend
<b>12:00 - 12:20</b>	<b>Rheology of sol-gel transition</b> Pavel Kudryavtsev and Oleg Figovsky

**12:20**

**CONFERENCE CLOSING**

**HANDOVER OF BEST POSTERS AND BEST SHORT ORAL AWARDS**

**BOARD:**

**Prof. Dr. Anil Saigal (USA) and Prof. Dr. Valery Kulichikhin (Russia)**

**Prof. Dr. Amirullah Mamedov (Turkey) and Prof. Dr. Sergei Kulkov (Russia)**

**Prof. Dr. Harald Pleiner (Germany) and Prof. Dr. Gömze A. László (Hungary)**