



**3rd CHINA-EUROPE SYMPOSIUM ON
PROCESSING AND PROPERTIES OF REINFORCED
POLYMERS**

11-15 June 2007, Budapest, Hungary

PRELIMINARY PROGRAM

(The final program will be available at the registration desk)



3rd CHINA-EUROPE SYMPOSIUM ON
PROCESSING AND PROPERTIES OF REINFORCED POLYMERS
11-15 June 2007, Budapest, Hungary

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WELCOME TO BUDAPEST AT THE 3RD CHINA-EUROPE SYMPOSIUM ON PROCESSING AND PROPERTIES OF REINFORCED POLYMERS

The China-Europe Symposiums on Processing and Properties of Reinforced Polymers provide a regular forum for scientists dealing with polymers, polymer composites technology, testing and applications. Realizing the interest of scientists and technologists from all over the world for getting general and specific knowledge about the most current advancements of the 'hot' topics of polymer technology, the conference chain moves around the globe. After having conferences in France (Nancy) and China (Beijing) the series has now reached Middle Europe, Hungary. The conferences are encouraged by the journals, *eXPRESS Polymer Letters*; and *Plastics, Rubbers and Composites*. The present occasion is organized under the auspices of Budapest University of Technology and Economics, Hungarian Academy of Sciences Committee of Fiber- and Composite Technology, Society of Plastics Engineers, MoDeSt Society, Association of Hungarian Plastics Industry, and Association of the Manufacturers of Reinforced Plastic Materials.

The organizers establish the frame of the conference for the presentation and discussion of the latest results and offer an opportunity for young scientists to learn and to present their work. This conference pays special attention to the establishment and enhancement of direct connections among the participants, and provides consultation possibilities for students. For that reason there is only one section at the conference, and the oral presentations are 15-minute-long followed by 3-5 minutes of discussion. The poster section is preceded by 5-minute-long PowerPoint presentations held by the authors of the posters. This way the problems can be revealed and the methods of solution can be summarized briefly, then the results can be discussed at the posters. This symposium breaks with the atmosphere of conventional, impersonal conferences organized by the dozen, and aims to provide homely programs for fewer people and on the other hand to ensure a high scientific standard, as well as to introduce the local culture and customs. The conference brings together the researchers from the West and the East, from academy and industry, serving as an open forum for the exchange of knowledge, and helping establish worldwide scientific cooperation.

Sincerely yours,



Tibor Czigany
Chairman



Gyorgy Marosi
Chairman



Ming Qiu Zhang
Chairman



2. Committees

Honorary chairmen:

C. G'Sell and S.-L. Bai

Chairmen:

T. Czigany, Gy. Marosi and M. Q. Zhang

International Advisory Board

S-L. Bai (CN), A. Bledzki (D), T. Czvikovszky (H), A. Dahoun (F), C. G'Sell (F), P. Hornsby (UK), J. Karger-Kocsis (D), L. Kollar (H), Y. W. Mai (AU), B. Pukanszky (H), M. Z. Rong (CN), K. Schulte (D), M. Q. Zhang (CN), Z. Zhang (CN), M. Zrinyi (H)

Local Committee

T. Barany, I. Csontos, Z. Mezey, L. Meszaros, G. Romhany, A. Toldy, G. Toth

3. Conference Guidelines & Facilities

3.1. Conference Registration Desk

The Conference is organized at the Conference Hall of Budapest University of Technology and Economics (H-1111, 11th District, Egrý József street 20-22.). The registration and information desk is located in front of the Conference Hall. The desk will be staffed throughout the opening hours of the conference. The personnel will be glad to help you with any problem and question.

3.2. Internet

Free wireless internet is available in the Conference Hall and in the Aula of the Conference Hall.

3.3. Language

The working language of the Conference is English.

3.4. Name Badges

Participants are kindly requested to wear their name badge at all times during the Conference. Admittance to all meals and special events requires wearing the name badge.

3.5. Special Dietary Requirements

Participants who have special dietary requirements please contact the information desk.

3.6. Information for Speakers

After registration, please give your presentation (on a CD or a USB stick) to the technicians at the registration desk who will upload it to the central computer.

It is crucial that you keep the time limit for your presentation: it is recommended to use 15 minutes for the presentation and leave 5 minutes for discussion, so that the planned timetable can be kept.

3.7. Information for Short Oral Presenters

After registration, please give your presentation (on a CD or a USB stick) to the technicians at the registration desk who will upload it to the central computer.



It is crucial that you keep the time limit for your presentation: it is 5 minutes for the presentation (maximum 5 PowerPoint slides) and the possibility is given for free discussion at the poster, so that the planned timetable can be kept.

Note that your poster should be hung the same day. We kindly ask you to install your poster (do not use pins, ask for double-sided adhesive tapes instead) in the morning and remove it in the evening on your scheduled day.

3.8. Information for Poster Presenters

Please check the day of your poster presentation. We kindly ask you to install your poster (do not use pins, ask for double-sided adhesive tapes instead) in the morning and remove it in the evening on your scheduled day.

3.8. Papers

Abstracts in the form of printed abstracts book are available to all participants at the conference. Selected papers will be considered for publication in the journals: eXPRESS Polymer Letters; and Plastics, Rubbers and Composites. The manuscripts should be uploaded through the website of the conference under the Menu 'Publication' after 5 June, 2007. More details can be found on the website, <http://3ch-eu.pt.bme.hu/>.

3.9. Traveling to the Conference

(Conference Hall of Budapest University of Technology and Economics, (H-1111, 11th District, Egry József street 20-22.)

Budapest can easily be reached by plane, train, car or hydrofoil. Minibuses run regularly from the "Ferihegy" airport to major downtown hotels. The Conference venue, Conference Hall of Budapest University of Technology and Economics, can be reached by means of public transportation easily. The stops of tram No. 4 or 6 (stop: Petőfi Híd-Budai Hídfő /Petofi Bridge-Buda Side/) and bus No. 12 (stop: Petőfi Híd-Budai Hídfő /Petofi Bridge-Buda Side/). Traveling to Móricz Zs. Körtér (Móricz Zs. square) by buses No. 3, 3, 7, 7, 73, 40, 40, 153, 153, 173, 18-47V, or by trams No. 18, 19, 41, 61. After taking off at Móricz Zs. Körtér, the conference venue can be reached quickly on foot (see the map).

3.10. Coffee Breaks, Lunches, Welcome Reception

Coffee breaks, lunches and the Welcome Reception are organized in the Aula of the Conference Hall.

3.11. Special Events

On Tuesday, at 7 p.m., the opening ceremony of Composites on Tour 2 and the reception will be held in the Gallery of Central European University (Budapest, 5th District. Arany János u. 32.). The meeting point is in front of the building of the Conference Hall and the group will start by bus at 6.15 p.m.

A special Hungarian dinner is organized in Borkatakomba Restaurant in Budafok (1222 Budapest, 22nd District, Nagytétényi út 64.) at 7 p.m. on Wednesday. The meeting point is in front of the building of the Conference Hall and the group will start by bus at 6.15 p.m.

A special Hungarian Village Tour will take place in Ráckeve at 4 p.m. on Wednesday. After sightseeing in Ráckeve we will travel to Apajpuszta, which is the richest place in rustic traditions of Hungary (Folklore program and special Hungarian dinner). The meeting point is in front of the building of Conference Hall and the group will start by bus at 3.00 p.m.

3.12. Map



3.13. Social Activities & Programs for Accompanying Persons

The Royal Palace of Gödöllő (Euro 50,-)

4 hours

Visit of the baroque palace in Gödöllő, which was the favorite summer residence of Queen Elisabeth, popularly known as Sissy. This will take you back in the times of the Austro-Hungarian Dual Monarchy. Stroll through to the palace grounds, shops for souvenirs and have a coffee and pastry in the picturesque cafeteria.

Herend / Lake Balaton (Euro 70,-)

8 hours

Route: the first stop is Herend, where the world-famous Porcelain Museum and Manufactory will be visited. The tour continues in Tihany, with a walk in the city and a visit to the medieval Abbey. The next attraction is Örvényes where the last functioning water



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mill of Hungary can be found. A pleasant walk in Balatonfüred closes the program. The program includes a three-course lunch and a taste of Hungarian wines. Entrance fee included.

Eger (Euro 85,-)

8 hours

Route: Eger, visit of the Castle and the István Dobó Castle Museum, Kéthuda Minaret, tour of the old city center, visit of the Cathedral and Lyceum. Visit to the Szépasszonyvölgye - famous vineyards and wine cellars with possibilities for wine tasting. A three-course lunch can be ordered. Entrance fees are included.

Budapest by night (Euro 70,-)

4 hours

Departure from your hotel at 7 p.m. to a traditional restaurant located in the Hills of Buda for a three-course dinner with wine completed with a traditional folklore show. On the way back to the hotel you will be able to enjoy the fascinating view of the city from the top of the Gellért Hill.

Typical Hungarian village tour - Szentendre (Euro 50,-)

5 hours

We take you to the picturesque village Szentendre - after a Promenade through the baroque centre of the city, a visit to the Ceramic Museum, to the Confectionery Museum and having a coffee and a cake in a traditional café, you will have the opportunity for shopping - we return to Budapest by ship on the Danube. The tour ends at the city centre.

Danube Bend (Euro 50,-)

7 hours

Route: Szentendre: Open Air Village Museum (on request), Margit Kovács Ceramic Museum; Visegrád: Castle and ruins of the Palace; Esztergom: visit of Hungary's largest Basilica and Treasury or the Royal Palace. The program includes a three-course lunch and a taste of Hungarian wines. Entrance fees are included.

Puszta Tour (Euro 80,-)

7 hours

Short walk in Kecskemét, then drive to the Tanya, where guests are welcomed with a traditional drink and savory snack. Horse show, carriage ride, possibilities for horseback riding. Meal accompanied by gipsy music in the Csárda. Menu: goulash soup, rich Hungarian main course, mixed vegetables, salad plate, traditional Hungarian dessert, mineral water, coffee, red and white wines.

If you want to participate in any of the above mentioned programs you can buy a ticket at the registration desk of the Conference.

4. Practical Information

4.1. Budapest

Budapest, the capital of Hungary, is an economic, financial and cultural centre with two million inhabitants. The city is beautifully situated on both sides of river Danube and has a 2000-year history. There are ruins from the time of the Roman Empire as well as from the



Middle Ages. However, it mainly reflects the atmosphere of the end of the 19th century, when the millennium of Hungary was celebrated. Many places of entertainment are available, in addition to places for peaceful relaxation. Several baths offer the pleasure of the waters of various medicinal thermal springs. The weather in June is pleasant, 24-28°C.

4.2. Bank & Business Hours

Public offices and banks are generally open from 9 a.m. to 4 p.m. (Mon-Thu) and 9 a.m. to 2 p.m. (Fri) and are usually closed on Saturday and Sunday. Opening hours of shops are usually 9 a.m.- 6 p.m. on weekdays (and 9 a.m.-1 p.m. on Saturdays) but several shopping centers are open every day from 8 a.m. until 10 p.m.

4.3. Emergency Calls

Medical emergency: 104 • Fire brigade: 105

Police: 107 • General emergency: 112

4.4. Tips, Value Added Tax

Tips are not included in prices, hence hotel and restaurant staff and taxi drivers may expect about 5-10 %.

4.5. Currency & Credit Card

The currency of Hungary is Hungarian Forint (HUF, Ft). The exchange rate of 1 USD is around 185 HUF and 1 EUR is approximately 245 HUF. Most foreign currencies can be exchanged to HUF in hotels, banks and exchange offices. Foreign currency (even Euro) will not be accepted in shops. Credit cards are widely accepted, check the emblems displayed at the entrance of the shop. Cheques are not accepted.

4.6. Traveling in Budapest

The public transportation system of Budapest is good. You can purchase (no credit card, only cash) tickets at the main underground stations and at newsagents. Since a new ticket must be validated every time you change a vehicle, it is advisable to buy a one-day, three-day or seven-day travel card.

In case you take a taxi, ask for the price before starting the way (otherwise it could cost too much).

There are several international car rental companies in Hungary, You can easily rent a car but driving in the rush hours is difficult in Budapest.

4.7. Time Zone

Hungary belongs to the Central European time zone, i.e. GMT+1 hour.

4.8. Telephone

The country code for Hungary is 36. The area code for Budapest is 1.

4.9. Electricity

Electricity is supplied in 220 voltages, 50 Hz.

4.10. Water

Budapest's tap water is drinking water, which is among the best quality in Europe.



11 June 2007, MONDAY

10.00 – 19.00 REGISTRATION

11.00 – 16.00 PRE SYMPOSIUM TOURS

(free for participants and accompanying persons)

Budapest Sightseeing by bus – Departure: 11.00 and 13.30

Visiting the Laboratory of the Department of Polymer Engineering –
Departure: 11.00 and 13.30

16.30 – 19.00 OPENING AND ORAL PRESENTATIONS

Chairman: T. Czigany

16.30 – 16.50 Opening

T. Czigany, T. Czvikovszky, Gy. Marosi, C. G'Sell, M. Q. Zhang

16.50 – 17.20 Deformation and toughening mechanisms of nylon-based nanocomposites – Plenary lecture

A. Dasari, S-H. Lim, Z-Z. Yu, Y-W. Mai

17.20 – 17.50 Thermoset-based polymer composites: some material and process developments – Plenary lecture

J. Karger-Kocsis

17.50 – 18.20 Recent achievements in polymer nanocomposites manufacturing – Plenary lecture

M. Q. Zhang, M. Z. Rong, W. H. Ruan

18.20 – 18.40 Contribution of volume strain to the overall plastic deformation in particle reinforced polymers

C. G'Sell, A. Dahoun, J-M. Hiver, S-L. Bai, Y-L. Yang

18.40 – 19.00 Nanoscale dynamic mechanical analysis of epoxy nanocomposites surfaces

Y-F. Zhang, S-L. Bai, Z. Zhang, D. Yang

19.00 – 21.00 WELCOME RECEPTION

Aula of the Conference Hall

12 June 2007, TUESDAY

8.30 – 10.00 ORAL PRESENTATIONS

Chairman: J. Karger-Kocsis

8.30 – 9.00 Micromechanical deformation processes in wood flour filled polypropylene composites – Plenary lecture

K. Renner, J. Moczo, B. Pukanszky

9.00 – 9.20 Self-healing epoxy composites with microencapsulated epoxy resin and latent curing agent

M. Z. Rong, M. Q. Zhang, T. Yin

9.20 – 9.40 Functional fillers derived from fibre-reinforced thermosetting plastics waste

P. Hornsby



9.40 – 10.00 The fiber reinforced silicon-containing arylacetylene resin composites

F. Huang, J. Huang, J. Zhang, W. Zhou, L. Du

10.00 – 10.20 COFFEE BREAK

Aula of the Conference Hall

10.20 – 12.10 ORAL AND SHORT ORAL PRESENTATIONS

Chairman: B. Pukanszky

10.20 – 10.40 Processing and mechanical characterisation of truly green composites

A. Abbott, A. Bismarck

10.40 – 11.00 Mechanical properties of sisal fibre reinforced urea-formaldehyde resin composites

J.-B. Zhong, J. Lv, C. Wei

11.00 – 11.20 Polymer biocomposites reinforced with natural fibers

M. Kozłowski, A. Kozłowska, A. Iwanczuk

11.20 – 11.40 Study of morphology and mechanical properties of low density polyethylene / olive husk flour composites prepared by different routes

M. Kaci, H. Djidjelli, A. Boukerrou

11.40 – 11.45 Study of thermal and mechanical properties of poly(vinyl chloride) /olive residue composites

H. Djidjelli, A. Boukerrou, M. Kaci

11.45 – 11.50 Preliminary researches on preparation and characterization of multilayer polyamide composite membranes reinforced by reverse osmosis membrane

B. X. Cai

11.50 – 11.55 Synthesis and characterization of novel reactive composites by surface modification of silica particles

F. Bucatariu, E. S. Dragan, F. Simon

11.55 – 12.00 Using tailored fibre placement technology for stress adapted design of composite structures

A. Spickenheuer, K. Gliesche, G. Heinrich

12.00 – 12.05 Effect of annealing and surface coating on the impact toughness of calcium carbonate filled isotactic PP

Y. Lin, C-M. Chan, J-S. Wu

12.05 – 12.10 Fractional calculus in linear viscoelasticity – an overview

N. D. Heymans

12.10 – 13.30 LUNCH

Aula of the Conference Hall

13.30 – 15.35 ORAL AND SHORT ORAL PRESENTATIONS

Chairman: Gy. Marosi

13.30 – 13.50 Flammability of polymers reinforced by natural fibres

R. M. Kozłowski, M. Władyka-Przybylak



- 13.50 – 14.10 Flame retardation of polymeric composites by physical/chemical modification of the resin matrix**
B. K. Kandola, B. Biswas, A. R. Horrocks
- 14.10 – 14.30 Recycled HDPE reinforced with different natural fillers**
G. L. Constantinescu, V. Popa
- 14.30 – 14.50 The impact of synthetic polymers' hydrophobicity upon transport in the biocomposites based on bacterial polyhydroxybutyrate**
A. L. Iordanskii, A. L. Zhulkina, V. S. Markin, R. Y. Kosenko
- 14.50 – 15.10 Electrospinning of thermo-regulating ultrafine fibers based on polyethylene glycol/cellulose acetate composites**
Y. Huang, C. Chen, L. Wang
- 15.10 – 15.15 Magnetoactive elastic composites. Preparation, properties, applications**
G. Stepanov, Y. L. Raikher, P. V. Melenev P, A. I. Gorbunov, E. Y. Kramarenko, E. F. Levina, E. I. Alexseeva, V. A. Naletova
- 15.15 – 15.20 Adhesive behavior of filled crosslinked rubber – bonding agent interface**
S. Besombes, L. Vidal, M. F. Vallat
- 15.20 – 15.25 Damage evolution of HTPB filled with rigid particles**
J. Chen, M-H. Zhang, J-X. Wang, Y. Guo
- 15.25 – 15.30 Investigating the compatibility of polymers in common solvent**
M. K. Baloch, M. Nawaz
- 15.30 – 15.35 Electrical relaxation dynamics in polymer matrix – TiO₂ composites**
C. Krontiras, G. Kontos, A. Soulintzis, P. K. Karahaliou, G. C. Psarras, S. N. Georga, M. N. Pisanias
- 15.35 – 16.00 COFFEE BREAK**
Aula of the Conference Hall
- 16.00 – 18.00 POSTER PRESENTATIONS**
Aula of the Conference Hall
Chairmen: P. Hornsby, Gy. Marosi
- 19.00 – 21.00 OPENING OF COMPOSITES ON TOUR 2**
Gallery of Central European University
Budapest, 5th District. Arany János u. 32.
(<http://designvlaanderen.be/composites-on-tour-2/>)
Travelling by bus, departure at 18.15 in front of the building of the Conference Hall
Opening speech: I. Verpoest, A. Penninger
The aim of the Composites-on-Tour, funded by the European Commission as part of their 'Science and Society' program, is to confront the general public with the question of whether and how science can change their daily life. Composite materials will serve as



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the example of a recent, research based innovation that has strongly shaped and influenced our living environment. The science behind composites will be explained in an attractive and diverse way, and the growing interest of the general public in design and “life style” will be used as an additional “entrance gate” to scientific innovations.

After Opening Ceremony, reception is in the Exhibition Hall.

13 June 2007, WEDNESDAY

8.30 – 10.00 ORAL PRESENTATIONS

Chairman: Y-W. Mai

8.30 – 9.00 Sliding wear of thermoplastic composites filled with micro- and nano-particles– Plenary lecture

Z. Zhang, L. Chang, K. Friedrich

9.00 – 9.20 Low-density polyethylene-wood fibre-silica nanocomposites: thermal and mechanical properties

A. K. Mishra, A. S. Luyt

9.20 – 9.40 Nanoalloy based on clays: Carboxylated nitrile rubber as a vector to transfer intercalated-exfoliated layered silicate in high performance elastomer

A. Das, R. Jurk, K. W. Stoeckelhuber, G. Heinrich

9.40 – 10.00 Preparation and properties of self-reinforced nano-silica/polypropylene composites

W. H. Ruan, M. Q. Zhang, M. H. Wang, M. Z. Rong, T. Barany, T. Czigany

10.00 – 10.20 COFFEE BREAK

Aula of the Conference Hall

10.20 – 12.10 ORAL AND SHORT ORAL PRESENTATIONS

Chairman: Z. Zhang

10.20 – 10.40 Aliphatic vs. aromatic organophylization of MMT on the cure parameters of natural rubber

F. Avalos, J. C. Ortiz, R. Zitzumbo, M. A. Lopez-Manchado, M. Arroyo

10.40 – 11.00 Polyamide-12/modified carbon nanofibres nanocomposites: Part I – mechanical and thermal properties

L. A. Sanchez de Almeida Prado, R. Chavez Medellin, K. Schulte

11.00 – 11.20 Influence of sol-gel synthesized silica nanoparticles on wear behaviour of epoxy nanocomposites

Z-Z. Yu, A. Dasari, Y-W. Mai

11.20 – 11.40 Elaboration and structure-properties relationships of poly(lactic acid) / unmodified clay nanocomposites

F. Peurton, M. Slavons, J. Soulestin, S. Elkoun, R. Seguela, J. M. Lefebvre, J. Devaux, M. F. Lacrampe, P. Krawzack



- 11.40 – 11.45 Preparation and evaluation of NBR/clay nanocomposites with coupling agents**
S. J. Ahmadi, Y. Huang, N. Ren, W. J. He
- 11.45 – 11.50 Synthesis and characterization of rubbery epoxy/organoclay hectorite nanocomposites**
A. Boukerrou, J. Duchet, H. Djidjelli, M. Kaci, H. Sautereau
- 11.50 – 11.55 Incorporation of carbon nanotubes into alumina and zirconia matrix**
J. Sun, L. Gao
- 11.55 – 12.00 Mechanical properties of PVC-S reinforced with selected nanofillers**
M. Obloj-Muzaj, A. Abramowicz, K. Piszczek, J. Tomaszewska
- 12.00 – 12.05 Preparation and investigation of carbon nanotube composites**
A. A. Major
- 12.05 – 12.10 Viscoelastic and thermal property modified epoxy-clay nanocomposites: preparation, characterization and property evaluations**
S. L. Madurai, B. S. Reddy
- 12.10 – 13.30 LUNCH**
Aula of the Conference Hall
- 13.30 – 15.35 ORAL AND SHORT ORAL PRESENTATIONS**
Chairman: M. Z. Rong
- 13.30 – 13.50 Carbon nanotube-based composites: Coupling of electrical and mechanical behavior for in situ sensing**
T-W. Chou, E. T. Thostenson, C. Li
- 13.50 – 14.10 Biodegradable polymers/carbon nanotubes nanocomposites**
M. Adeli, R. Kabiri
- 14.10 – 14.30 Form-factor effects on polymer adsorption on nano particles**
B. Haidar, R. Al-Akoum, C. Vaultot, M. Owczarek, A. Vidal
- 14.30 – 14.50 Fabrication of MWNTs/BaTiO₃ nanocomposites and their microstructure evolution, mechanical and electrical properties**
L. Gao, Q. Huang, J. Sun
- 14.50 – 15.10 Mechanical behaviour of nano-particle polymer at high strain rates**
L. Yang
- 15.10 – 15.15 Ultra high molecular weight polyethylene (UHMWPE) and polyether urethane nano-composite as acetabular cup material**
M. T. Khorasani
- 15.15 – 15.20 Effect of gamma irradiation on properties of EPDM/clay nanocomposites**



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S. J. Ahmadi, Y. Huang, N. Ren, R. Yavari

15.20 – 15.25 Effect of the physical and chemical modification of silica on rubber reinforcement

I. Mora-Barrantes, J. L. Valentin, L. Ibarra, L. Gonzalez, A. Rodriguez

15.25 – 15.30 Nano polypyrrole fiber devices prepared using AAO templates

Z. Jiang, L. Liu, N. Jia, M. Yan, Q. Zhou

15.30 – 15.35 Study on DBD plasma induced polymer grafting of nano-SiO₂ powders and their application in PP composites

S. Zhong, Y. Meng

15.35 – 16.00 COFFEE BREAK

Aula of the Conference Hall

16.00 – 18.00 POSTER PRESENTATIONS

Aula of the Conference Hall

Chairmen: S-L. Bai, C. G'Sell

19.00 – 22.00 TYPICAL HUNGARIAN DINNER

Borkatakomba Restaurant, Budafok

(http://www.borkatakomba.hu/langs/angol/BRK_nyito.html)

Travelling by bus, departure at 18.15 in front of the building of the Conference Hall

Budafok is the citadel of the Hungarian wine commerce, with the honorable title of „Town of Champagnes and Wine”. The Budafok Borskanzen operates here, in the area of the ancient Promontor, which introduces Hungary's deservedly world-famous viticulture by regions, and presents its tools, traditions and products.

14 June 2007, THURSDAY

8.30 – 10.10 ORAL PRESENTATIONS

Chairman: C. G'Sell

8.30 – 8.50 Experimental investigation and modelling of damage in reinforced polyamide 11

G. Boisot, L. Laiarinandrasana, C. Fond, G. Hochstetter

8.50 – 9.10 Nonlinear constitutive relations of HDPE/CaCO₃ composites with debonded microvoids

Z-P. Huang, Y-L. Yang, S-L. Bai

9.10 – 9.30 Relaxation phenomena in rubber/layered silicate nanocomposites

G. C. Psarras, K. G. Gatos, P. K. Karahaliou, S. N. Georga, C. A. Krontiras, J. Karger-Kocsis

9.30 – 9.50 Experimental studies on mechanical properties of HDPE/POE-g-MA/CaCO₃ blends

J. Xu, Z. Li, B. Fu



9.50 – 10.10 Development of a mixed-mode I/II/III fracture mechanical system using prestressed transparent composite beams
A. Szekrenyes

10.10 – 10.30 COFFEE BREAK
Aula of the Conference Hall

10.30 – 12.10 ORAL PRESENTATIONS
Chairman: S-L. Bai

10.30 – 10.50 Creep behaviour of high-density polyethylene – carbon black composites
M. Traina, A. Pegoretti, A. Penati, S. E. Barbosa

10.50 – 11.10 Electrorheological properties of polyindene/calcium carbonate composites
H. I. Unal, S. Sarikaya, M. Yavuz, H. Yilmaz, B. Sari

11.10 – 11.30 Studies on rate-dependent damage evolution in reinforced polymers in high strain rates
L-L. Wang, Z-J. Sun

11.30 – 11.50 Stability features of advanced composites
Gy. Marosi, B. Marosfoi Zs. Nagy, Gy. Bertalan, A. Toth

11.50 – 12.10 Influence of preform technology on 2D-permeability
G. Rieber, P. Mitschang, N. Chen

12.10 – 13.30 LUNCH
Aula of the Conference Hall

13.30 – 14.30 ORAL PRESENTATIONS
Chairman: T. Czigany

13.30 – 13.50 Injection molding of bushes made of tribological PEEK composites
F. Quadrini, E. A. Squeo

13.50 – 14.10 Machining of glass fiber reinforced polyamide
E. A. Squeo, F. Quadrini, V. Tagliaferri

14.10 – 14.30 Influence of manufacturing parameters on the variation of properties of HexFIT® composites preforms obtained by Resin Film Infusion
J. Lopez Torres, P. Margueres, F. Collombet

15.00 – 22.00 TYPICAL HUNGARIAN VILLAGE TOUR WITH DINNER

Ráckeve and Apajpuszta

[\(http://www.tourinform.rackeve.hu/english/\)](http://www.tourinform.rackeve.hu/english/)

[\(http://www.apajpuszta.hu/index_en.php?info=puszta\)](http://www.apajpuszta.hu/index_en.php?info=puszta)

Traveling by bus, departure at 15.00 in front of the building of the Conference Hall

At first a travel to Ráckeve (sightseeing) that can be found in the centre of the Ráckeve Danube Arm, a favorite holiday area for anglers and water sportsmen is included. Its gorgeous Baroque palace, a 17th-



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PROCESSING AND PROPERTIES OF REINFORCED POLYMERS
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century Savoyard Palace, Gothic Ortodox Serbian Church, serves today as a conference venue.

After the sightseeing a travel to Apajpuszta, which is the richest place in rustic traditions of Hungary follows. After arrival, there is a possibility to go for a ride by a horse-carriage and to attend a horse show. Special Hungarian dinner with folklore program.

15 June 2007, FRIDAY

8.00 – 16.00 POST SYMPOSIUM TOUR – PUSZTA TOUR

(It is not included in the registration fee, Euro 80,-)

Short walk in Kecskemét, then drive to the Tanya, where guests are welcomed with a traditional drink and savory snack. Horse show, carriage ride, possibilities for horseback riding. Meal accompanied by gipsy music in the Csárda. Menu: goulash soup, rich Hungarian main course, mixed vegetables, salad plate, traditional Hungarian dessert, mineral water, coffee, red and white wines.

LIST OF POSTER PRESENTATIONS

12 June, 2007, TUESDAY (16.10-18.00)

- P01 Composite materials based on sequential semi-interpenetrating polymer networks**
T. T. Alekseeva, N. V. Babkina, Y. S. Lipatov, L. A. Sorochinskaya, N. V. Yarovaya
- P02 Biopolymers in extruded pharmaceutical products**
P. Anna. L. Kovacs, D. Molnar, Zs. K. Nagy, Gy. Marosi
- P03 Strain sensitive photonic natural rubber**
K. Anuchai, R. Magaraphan, C. Weder
- P04 Effect of different colloidal stabilizers on the some properties of vinyl acetate-co-butyl acrylate latexes**
H. Berber, A. Sarac, H. Yildirim
- P05 Preparation and characterization of alumina-zirconia composite material with different acid ratios by sol-gel method**
H. C. Cabbar, M. Guru, O. B. Ergu
- P06 A study on the miscibility of a copolyester of bisphenol-A with terephthalic acid and isophthalic acid- poly(2,6-dimethyl -1,4-phenylene oxide) blends**
F. Cakar, O. Cankurtaran, F. Karaman



- P07 A study on swelling behavior of poly (methyl acrylate) networks in linear poly (methyl acrylate) solutions**
F. Cakar, D. Sakar, O. Cankurtaran, F. Karaman
- P08 Theoretical prediction of scCO₂ induced plasticization and the regradation behavior of T_g of polyacrylic acid**
G-P. Cao, G. W. Roberts
- P09 Study on thermal degradation of cellulose allomorphs**
D. E. Ciolacu
- P10 A new biomedical utilization of recycling lignin**
D. E. Ciolacu, G. Cazacu
- P11 Dielectric relaxation spectroscopy of recycled PET with different synthetic polymer blends**
G. L. Constantinescu, S. Aradoaie, R. C. Ciobanu
- P12 Studies on the compatibility of blends from virgin and recycled synthetic polymers**
R. N. Darie, C. Vasile, M. Kozlowski
- P13 Polyethylene/polyamide 6/elastomer blends. II. Comparative study of mechanical behaviour of the blends based on virgin and recycled polyethylene**
R. N. Darie, C. Vasile, M. Kozlowski
- P14 Polypropylene/lignosulfonate blends. I. Processing and mechanical behaviour**
R. N. Darie, G. Cazacu, C. Vasile, M. Kozlowski
- P15 Investigation of mechanical properties and chemical composition of basalt fibers**
T. Deak, T. Czigany
- P16 Biodegradable composites from starch reinforced by agricultural byproducts**
G. Dogossy, T. Czigany
- P17 QAS-containing ionic hybrid hydrogels and their characterization**
E. S. Dragan, M. Cazacu
- P18 Direct saxs intensity profile analysis as a tool for studying the lamellar structure of poly(vinylidene fluoride) / poly(methyl methacrylate) semi-crystalline blends**
M. Fatnassi, F. B. C. Larbi, J. L. Halary
- P19 Experimental measurements of fiber orientation in long glass fiber reinforced polypropylene by means of image applications**
S. Ferrandiz, J. Lopez, R. Navarro, F. Parres
- P20 Recent hierarchies of results and comparison between ramified, star and linear polymers networks: a topological, scattering and kinetics studies**
N. Ghaouar
- P21 The effect of layer number on air permeability in case of glass fiber mats**
Z. Gombos, L. M. Vas, J. Hruza



- P22 Processing of Cer-met composite material from Zn and B₂O₃**
M. Guru, S. Tekeli, C. Cakanyildirim, H.C. Cabbara
- P23 Sea water resistance of polypropylene/wood flour composite**
A. Heimowska, M. J. Rutkowska, A. L. Leao
- P24 New phosphorus containing polymers obtained by inverse phase transfer catalysis**
S. Iliescu, G. Ilia, A. Popa, N. Plesu, L. Macarie, A. Pascariu
- P25 Hot-consolidated all-PP composites from textile fabrics composed of PP filaments with different stretching**
A. Izer, T. Barany
- P26 Processing, morphology and properties of polyamide 6 with different types of thermoplastic polyurethanes**
H. Janik, M. Strankowski
- P27 Tensile and tearing fracture behaviour of food packaging laminate**
S. Kao-Walter, A. B. Muhammadi, M. Walter
- P28 Preparation and characterization of cellulose pulp-reinforced natural rubber/ tapioca starch composite foams**
C. Katepetch, R. Rujiravanit, P. Supaphol, R. Magaraphan
- P29 Study on the relationship between structures of molecule design and properties of polycarboxylate-type superplasticizer**
Z-M. Liu, Y-F. Luo, X. Jiang, Y-P. Liu, D-M. Jia
- P30 Zeolite supported biopolymers: potential remediation agents for Mo⁶⁺ and Mn²⁺ in wastewaters**
A. Lopez-Delgado, A. L. R. Merce, A. P. Franco, R. B. Hernandez, J. Felcman, D. A. Fungaro
- P31 Extended-chain morphologies in high-pressure crystallized poly(ethylene terephthalate) / bisphenol-A polycarbonate blends**
J. Lu, I-K. Oh, R. Huang, L. Li, X-L. Wang, T-H. Cheng
- P32 Effect of siloxane amine as a new curing agent for epoxy resins: material characterization and properties**
S. L. Madurai, S. Marimuthu, B. S. Reddy
- P33 Effect of cassava starch and fly ash as fillers on rheological and mechanical properties of epoxy systems**
U. Meekum, P. Thananowan
- P34 The effect of the EVA content on the mechanical properties of LDPE/ground tyre rubber blends**
L. Meszaros, T. Barany
- P35 Characterisation of flexible PVC sheets with high surface toughness**
T. Nagy, A. Fazekas-Martón, T. Stelczer, A. Szabo
- P36 Wittig olefinations with a polymer-supported aldehyde**
A. Pascariu, A. Popa, S. Iliescu, G. Ilia, N. Plesu, L. Macarie
- P37 Rheology-morphology relationships in poly(trimethylene terephthalate)/liquid crystalline polymer in situ composites**
P. Pisitsak, R. Magaraphan



- P38 Semiconductive polyaniline melamine-formaldehyde blend electronic barrier to corrosion**
N. Plesu, S. Iliescu, G. Ilia, A. Popa
- P39 Mechanical evaluation of polyamides used in rapid prototyping after accelerated aging**
E. M. S. Sanchez, C. L. Salgado, J. V. L. Silva, I. A. Maia, M. F. Oliveira, C. A. C. Zavaglia
- P40 Synthesis and characterization of polythiophene/poly(oxy-methylene) composites**
B. Sari, A. Ozgun, A. Gok, H. I. Unal, C. Cakanyildirim
- P41 Dissociative adsorption of Borane on Si(001) surfaces**
M. Simsek, M. Cakmak
- P42 Examination of injection moulded thermoplastic maize starch**
T. Tabi, J. G. Kovacs
- P43 Mechanical properties of fiber reinforced polyester composites**
Cs. Varga, N. Miskolczi, L. Bartha
- P44 Mechanical, rheological, dynamic mechanical and thermal properties of TLCP/GF/UP hybrid composites**
C. Wei, X-B. Yu, J. Lv
- P45 Synthesis and properties of SiO₂ for polymerization of ethylene**
P. Yao
- P46 Investigation of electrorheological properties of polyindole/poly(vinyl acetate) composite suspensions**
H. Yilmaz, K. Oz, H. I. Unal, B. Sari
- P47 Experimental analysis of the basic properties of continuous basalt fiber**
H. Cao, H. Lang, S. Meng
- P48 Study on the mechanism of anodic oxidation treatment of carbon fibers' surface**
H. Cao, G. Li, X. Li

13 June, 2007, WEDNESDAY (16.00-18.00)

- P49 Inverse gas chromatography as an alternative method for the analysis and characterization of polymers**
Z. Y. Al-Saigh
- P50 Fire retarded polymer blends and composites**
B. Bodzay, B. B. Marosfoi, Gy. Marosi
- P51 Effect of modified silica with immobilized antioxidant on thermal degradation of filled polyethylene**
I. M. Bolbukh, P. O. Kuzema, V. A. Tertykh, I. V. Laguta
- P52 Preparation and characterization of nano-silica/epoxy nanocomposite**
N. Dilsiz, I. Bagci, H. Yavuz, A. Bicer

- P53 The effect of surface treatment of calcium carbonate on the mechanical properties of reinforced composites based on PP/LDPE/CaCO₃**
N. Haddaoui, F. Chebira, C. Bouremel
- P54 Thermal and SAXS-WAXS structural investigation of organically modified clay**
B. Haidar, C. Vaulot, A. Vidal, M. Defaux, D. A. Ivanov
- P55 Adsorption of monodispersed polybutadiens on carbon black. Effects of mixing conditions from solution-to-bulk**
B. Haidar, K. Vuillaume, A. Vidal
- P56 Polymer nanocomposites based on titanate nanostructures**
E. Horvath, A. Kukovecz, Z. Konya, I. Kiricsi, Gy. Deak, M. Zsuga
- P57 Hybrid particle composites (Acrylic composites containing metalphosphonates)**
G. Ilia, S. Iliescu, A. Popa, N. Plesu, A. Pascariu, L. Macarie
- P58 PVDF/BST composite film for mechanical sensor**
K. Kohpaiboon, H. Manuspiya
- P59 Physical properties of poly(ethylene terephthalate) based composites containing carbon nanotubes**
M. Kwiatkowska, I. Jurewicz, A. Dalton, T. A. Ezquerro, Z. Roslaniec
- P60 Photopolymerizable formulations for enhanced properties of pigmented films**
L. Macarie, G. Ilia, S. Iliescu, A. Popa, N. Plesu, A. Pascariu
- P61 Assessment of triphenyl phosphite on the properties of high impact polystyrene clay nanocomposites**
O. Manero, A. S. Solis, G. S. Olivares
- P62 Recycled composites of enhanced fire retardancy**
Sz. Matko, P. Anna, I. Repasi, Zs. Homoki, Gy. Marosi
- P63 Optimal cure conditions of the prepreg formulation for windsurf and surfboard industry**
U. Meekum, W. Nasai
- P64 Influence of the extrusion temperature on dynamic-mechanical properties of polyamide 6/MMT nanocomposites**
L. Meszaros, F. Ronkay, L. Olah
- P65 Bionanocomposites for pharmaceutical technology**
Zs. Nagy, P. Anna, P. Fekete, Gy. Marosi
- P66 Nanocomposites on base polyolefin and modified bentonite**
E. Olewnik, W. Czerwinski, J. Richert
- P67 Non linear mechanical behaviour of carbon black reinforced elastomers: experiments and self-consistent model**
B. Omnes, S. Thuillier, P. Pilvin, S. Gillet
- P68 Synthesis and characterizations of aminophosphonate styrene-divinylbenzene copolymer-silica hybrid materials**
A. Popa, V. Parvulescu, S. Iliescu, N. Plesu, G. Ilia, L. Macarie, A. Pascariu
- P69 Investigation of the effect of mould surface finish on the properties of injection moulding parts**
M. Posa



- P70 Phase state diagrams in systems with crystalline and complicated equilibrium**
I. G. Protasov, A. E. Chalykh, R. R. Khasbiullin, A. A. Sherbina
- P71 Preparation and electrical, morphological, thermal, and mechanical characterization of polyarylate/multi-walled carbon nanotube nanocomposites**
D. Sakar, S. Pegel, J. Pionteck, P. Potschke
- P72 Determination of polymer-polymer interaction parameters by inverse gas chromatography**
D. Sakar, O. Cankurtaran, F. Karaman
- P73 Determination of thermodynamical parameters of poly(2,6-dimethyl-1,4-phenylene oxide) in some solvents**
D. Sakar, O. Cankurtaran, F. Karaman
- P74 Modelling strategy of real woven composite structures**
J. Salacova
- P75 Assessment of triphenyl phosphite on high impact polystyrene-clay nanocomposite properties**
G. Sanchez-Olivares, A. Sanchez-Solis, O. Manero
- P76 Polyethylene terephthalate-rubber-clay nanocomposites**
A. Sanchez-Solis, K. Gomez-Lizarraga, O. Manero
- P77 The effects of different emulsifiers on the some physical, thermal and mechanical properties of emulsion copolymers**
A. Sarac, H. Yildirim, C. Denktas, M. Oksuz
- P78 Synthesis of PBT nanocomposites using anionic clays**
L. Sisti, C. Berti, M. Fiorini
- P79 The examination of weld line properties in injection molded composites**
B. Solymossy, J. G. Kovacs
- P80 Micro-Raman analysis of nano- and biocomposite structures**
A. Szabo, B. Vajna, Gy. Marosi
- P81 Preparation of multiwall carbon nanotube reinforced epoxy nanocomposites and examination its mechanical properties**
G. Szebenyi, G. Romhany
- P82 Investigation of the rheology of polymers in the cavity filling stage**
A. Szucs
- P83 An investigation on wear resistance of sic-reinforced aluminum composites produced by mechanical alloying method**
S. Tekeli, D. Ozyurek, A. Gural, M. Yasar, M. Guru
- P84 Modeling method based on idealized fiber bundles**
L. M. Vas, P. Tamas
- P85 Solid state polycondensation of in situ prepared poly(ethylene terephthalate) nanocomposites**
A. A. Vassiliou, D. J. Giliopoulos, V. Karavelidis, D. N. Bikiaris
- P86 Pyrolysis process in meta- and para-aramid fibers investigated by Py-GC/MS & TGA-DTA/MS**
X. Wang



- P87 Thermal degradation of meta- and para-aramid fibers in different atmospheres**
X. Wang
- P88 Electrorheological properties of polythiophene/poly(oxymethylene) conducting composites**
M. Yavuz
- P89 Characterization of flame retardant plasma polymer deposited BOPP films**
H. Yavuz, Z. M. O. Rzaev, N. Dilsiz
- P90 Polypropylene/clay nanocomposites**
M. Yazdani-Pedram, R. Quijada
- P91 Metalcontaining nanocomposite**
G. Y. Yurkov, S. V. Boychuk, S. P. Gubin
- P92 Preparation and characteristics of polypropylene/nylon/montmorillonite flame retardant nanocomposites**
K. Zhang, L. J. Wang, X. M. Wu, G. W. Zhang, X. L. Xie