Scientific Program

Official language of the conference is English. Please hand-in your presentation on CD, DVD or USB memory stick to the technical team in the plenary hall on the day of your presentation, within the break before the start of the session. Author's presence is required at least 10 min. before the presentation. The duration of each presentation is limited as marked.
The posters should be displayed in the morning of the day of your presentation and be removed in the evening after the end of the discussion. The poster size should not exceed 90 cm width and 140 cm height. Materials for its mounting will be available at the CIC Registration & Information desk.

Sunday, 11 July 2010

10:00 – 19:00	**Registration –** CIC Hospitality & Information desk - Kempinski hotel Zografski conference lobby
19:00 – 21:00	***Welcome Reception – Kempinski hotel Zografski***

Monday, 12 July 2010

09:00 – 09:30	Welcome to Zeolite 2010, ***Ognyan Petrov***, Organizing Committee Chair Welcome address from ***Panagiotis Misailides***, President of INZA Welcome address from the ***President*** of the Bulgarian Academy of Sciences Introduction to the conference program, ***Ognyan Petrov***, Organizing Committee Chair

Session "Zeolite Formation, Occurence, Deposits"

Alessio Langella (Italy) and Yotso Yanev (Bulgaria) presiding

09:30 -10:00	Large ignimbrite eruptions and zeolite deposits of Central-Southern Italy. ***Alessio Langella*** – INVITED
10:00 – 10:20	Zeolitization and related processes in acid pyroclastic rocks in Bulgaria and Slovakia. *G. Kirov, E. Šamajova, R. Nedialkov,* ***Ts. Stanimirova***
10:20 – 10:40	***Coffee - break***
10:40 – 11:00	Zeolitisation during cooling or heating? Evidence from Late-Cretaceous Coastal Ecuador. ***L. Machiels****, W. Vilema, F. Morante, D. Garces,C. Paredes and J. Elsen*
11:00 – 10:20	Zeolitization of acid pyroclastic deposits from northern parts of Dzhebel depression, E. Rhodopes, S. Bulgaria. ***R. Ivanova****, Y. Yanev, E. Vasilieva, L. Machiels, J. Elsen*
11:20 – 11:40	Physico-mechanical properties of the zeolite and epiclastic rocks in the area of General Geshevo landslide (East Rhodopes, Bulgaria). ***M. Krastanov,*** *Z. Milakovska*
11:40 – 12:00	A zeolitization model for the Campanian Ignimbrite. *A. Langella,* ***P. Cappellett****., .G Cerr., A. Colella, R. de Gennaro, S. Graziano, D.L. Bish, M. de Gennaro*
12:00 – 13:00	***Lunch***

Session "Mineralogy of Natural Zeolites"

Thomas Armbruster (Switzerland) and Diego Gatta (Italy) presiding

13:00 – 13:30	Dehydration and framework rupture in calcian zeolites: A review. ***Thomas Armbruster*** – INVITED
13:30 – 14:00	Quantitative Aspects of Zeolite Group Minerals: Clinoptilolite to Erionite. ***U. Dogan,*** *M. Dogan* – INVITED
14:00 – 14:20	Cationic hydration and zeolites. ***G. Kirov****, L. Filizova*
14:20 – 14:40	Properties and formation of analcime in Miocene tuffs in Küçükkuyu, Biga Peninsula (Western Turkey). ***S. Özen,*** *M. C. Göncüoğlu*.
14:40 – 15:00	Hydrothermal modification of Iranian natural clinoptilolite. ***M. Bahri****, A. Mansouri, A. Khodadadi , A. Badiei*
15:00 – 15:20	Features of zeolite minerals occurring inside the Takamatsu Crater district. ***M. Okamoto,*** *T. Ueno*
15:20 – 15:40	***Break***

Session "Thermodynamics, Ion Exchange, and Characterization"

David L. Bish (USA) and Valentina Nikashina (Russia) presiding

15:40 – 16:10	Phase transitions in natural zeolites. ***D. L. Bish*** - INVITED
16:10 – 16:40	Pressure-induced expansion in zeolites: fate or reality?, ***G. Diego Gatta*** – INVITED
16:40 – 17:00	New insights into the mineral-chemistry and properties of natural and fully Na^+-exchanged HEU-type zeolite crystals. ***A. Godelitsas****, T. Armbruster, P.S. Neuhoff, A. Filippidis*
17:00 – 17:20	Anion exchange selectivity of surfactant-modified zeolites for environmental remediation. ***B. de Gennaro,*** *L. Catalanotti, R. S. Bowman, C. Colella*
17:20 – 17:40	Characterisation of South African natural zeolites for industrial applications. ***P. P. Diale****, E. Muzenda, J. Zimba*
17:40 – 18:00	Ammonium exchange from water solution on chabazite. Effect of pH, temperature and conditioning of chabazite. ***R. Leyva-Ramos****, J.E. Monsivais-Rocha, M.S. Berber-Mendoza, J. Mendoza-Barron, R.M. Guerrero-Coronado, L. Fuentes-Rubio*
18:00 – 19:00	Discussion - Poster Session I and Social Hour

Poster Session I
"Zeolite Formation, Occurence, Deposits"

PI-1. Mineral prospecting of zeolitized rocks in a new sector of Logudoro region (Northern Sardinia, Italy). *L. Sanna, G. Cerri, A. Brundu, G. Oggiano.*

PI-2. Mineralogy and physicochemical properties of analcime-bearing rocks (Timan Region, Komi Republic, Russia). *O. Kotova, D. Shushkov*.

PI-3. Two Paleogene zeolite occurrences in Kraishte (West Bulgaria). *Z. Milakovska****,*** *A. Harkovska, P. Bakalov*

PI-4. Zeolitisation in the Western Cordillera of Southern Ecuador. *D. Le Lièvre, L. Machiels, F. Morante, D. Garces, J. C. Romero, A. Suin, J. Elsen.*

PI-5. A clockwork zeolite: defining an upper time limit for phillipsite nucleation in shallow sea water. *G. Cerri, P. Mameli, A. Brundu, I. Sechi.*

PI-6. Petrography, composition and CEC of the zeolitized Paleogene pyroclastic rocks to the south of the town of Dzhebel, SE Rhodopes, Bulgaria. *M. Rens, R. Ivanova, J. Elsen, Y. Yanev, L. Machiel.*

PI-7. Energetic aspects of volcanic ash-water interaction and zeolitization of volcanic ash rocks. *G. Kirov and N. Petrova*.

PI-8. Clinoptilolite-containing rocks at the SW foot of Chala elevation, Haskovo region (Bulgaria) – position and genesis. *O. Malinov, S. Djambazov, O. Petrov*

PI-9. Petrophysical characteristics and phase composition of zeolitic rocks applied to cultural heritage (Tatul rock sanctuary, Eastern Rhodopes, Bulgaria). *R. I. Kostov, Y. Tzvetanova, V. Vladimirov*

"Mineralogy of Natural Zeolites"

PI-10. Stepwise dehydration of goosecreekite: A structural study. *E. Wadoski, T. Armbruster, B. Lazic, M. Fisch.*

PI-11. Mineralogical characterization of the clinoptilolite tuffs in the Mexican Volcanic Belt, Southwestern Mexico. *M. Ostrooumov, C. Colella*.

PI-12. Mineralogical properties of the zeolite occurences within the Selbükü Area (Bilecik, Turkey). *B. Uz, G. Bacak, Ş. Ozdamar.*

PI-13. Mineralogy of zeolitized pyroclastics from Golobradovo deposit, (East Rhodopes) and their application for industrial waste water treatment. ***R. Ivanova**, N. Popov, Y. Yanev, T. Popova, L. Machiels.*

PI-14. Effect of acid treatment on the structure of clinoptilolite. *F. Çakıcıoğlu-Özkan, M. Becer, and S. Ülkü*

"Thermodynamics, Ion Exchange, and Characterization"

PI-15. Mutual ion-exchange of the cationic pairs between K^+, Na^+, Ba^{2+}, and Ca^{2+} in clinoptilolite at 30 and 95^{o}C. ***N. Petrova**, L. Filizova, G. Kirov.*

PI-16. Adsorption of para-aminobenzoic acid by Ca-clinoptilolite and Ca-montmorillonite. ***M. L. Chávez-García**, L. de Pablo-Galán, A.R. Botello-Ontiveros.*

PI-17. Interaction of Ba^{2+} ions with Ca-clinoptilolite and Ca-montmorillonite. ***M. L. Chávez-García, L. de Pablo-Galán, T.A. García-Mejía***.

PI-18. Kinetics and equilibrium of Ag^+ exchange on clinoptilolite. ***N. Lihareva**, L. Dimova, O. Petrov, Y. Tsvetanova*.

PI-19. Reversible unit-cell contraction of a Pb-clinoptilolite heated to 450°C at 13.3 Pa. ***G. Cerri**, A. Brundu, M. Calia, D.L. Bish*.

PI-20. Ammonium exchanged clinoptilolite – efficient Cu adsorbent. ***S. Milićević**, V. Milošević, A. Daković, S. Matijašević, M. Kragović*

PI-21. Sorption and calorimetric study of ion exchange involving various cations on Na-forms of clinoptilolite and mordenite. ***Yu.I.Tarasevich****, V.E.Polyakov, D.A. Krysenko, E.V. Aksenenko.*

PI-22. Thermal and spectroscopic properties of clinoptilolite-rich natural zeolites chemically ion exchanged with salt solutions. ***M. Sakızcı****, B. Erdoğan Alver, E. Yörükoğulları*.

PI-23. Natural zeolite from Turkey and its K-, Na-, Mg-, and Ca-exchanged forms as an adsorbent for SO_2 removal. ***B. Erdoğan Alver****, M. Sakızcı, E. Yörükoğulları*

PI-24**.** SEM and XRD study of $ZnCl_2$ occluded clinoptilolite. ***L. Dimova*** *, G. N. Kirov, A. Stoyanova-Ivanova, V. Mikli.*

PI-25. Preparation and characterization of Ag-exchanged clinoptilolite. ***L. Dimova*** *, O. Petrov, N. Lihareva, A. Stoyanova-Ivanova, V. Mikli*

PI-26. Stepwise dehydration of heulandite-Ba: A single crystal X-ray study. ***M. Kadiyski****, Th. Armbruster*

Tuesday, 13 July 2010

Session "New and Innovative Zeolite Applications"

Dimiter Tchernev (USA) and Eveline Popovici (Romania) presiding

09:00 – 09:30	Natural zeolites: Still a subject of innovative research? ***P. Misaelides*** – INVITED
09:30 – 09:50	Photocatalytic performance of some nanocomposites based on new Romanian clinoptilolite tuffs from Chilioara areal. *M. Ignat, G.D. Mihai, I. Calb, M. Alexandroaiei, N. Bilba,* ***E. Popovici***
09:50 – 10:10	Aqueous interactions of natural zeolite in lactic acid medium. ***I. Polatoglu,*** *F. Cakicioglu-Ozkan*
10:10 – 10:30	***Coffee break***
10:30 – 10:50	Reduction of environmental pollution caused by phosphate through the use of natural zeolite (clinoptilolite) production of powder detergents. ***S.A. Gobbi****, F.B. Filho*
10:50 – 11:10	Using of natural zeolites for preparation of Maya Blue analogs. ***S. Kowalak****, A. Zywert*
11:10 – 11:30	Adsorption of quaternary amine (cetyltrimethylammonium bromide) onto clinoptilolite from Gördes Deposit of Manisa (Turkey). ***S. Dikmen****, E. Yörükoğulları*
11:30 – 12:30	***Lunch***

Session "Modeling of Zeolite Surfaces and Processes"

Hossein Kazemian (Canada) and Aleksandra Dakovic (Serbia) presiding
(Dedicated to Prof. Robert Bowman)

12:30 – 12:50	Surface sorption of humic acids by phillipsite. *P. Iovino,* ***S. Capasso****, S. Canzano, S. Salvestrini, A. Colella, B. de Gennaro, C. Colella.*
12:50 – 13:10	Zearalenone sorption by a zeolitic tuff and its modified organozeolites. ***A. Daković****, M. Kragović, G. E. Rottinghaus, Ž. Sekulić, S. Milićević*
13:10 – 13:30	Physicochemical characterization of magnetic modified clinoptilolite from Bigadic (Turkey). ***Onder Orhun,*** *Zafer Dikmen.*
13:30 – 13:50	Enhancement of catalytic CO oxidation over Pt/zeolite and Pt/alumina catalysts using cerium as a surface modifier. ***T. Triyono,*** *W. Trisunaryanti*.

13:50 – 14:10	Removal of sodium dodecyl benzene sulfonate using a modified natural zeolite. ***S. R. Taffarel,*** *J. Rubio*
14:10 – 14:30	The effect of hydrochloric acid solution treatment on the features of Indonesian natural zeolite. ***W. Trisunaryanti,*** *A. Syoufyan, Triyono, S. Purwono, Padi.*
14:30 – 14:50	Use of higher effective modified natural zeolites as sorbents for organic compounds. ***G.Torosyan****, A.M.Galoyan, A.Kh.Nazaretyan, S.H.Harutyunyan, N.S.Torosyan, D.N.Hovhannisyan*
14:50 – 15:10	***Break***

Session "Biomedical and Biotechnological Applications of Natural Zeolites"

C. Colella (Italy) and K. Pavelic (Croatia) presiding

15:10 – 15:40	An overview of bio-medical and veterinary applications of natural zeolites. ***C. Colella*** - INVITED
15:40 – 16:10	Clinoptilolite: Cellular and molecular effect on tumor cells. ***K. Pavelic*** - INVITED
16:10 – 16:30	Production of wound healing materials from local clinoptilolite-rich natural zeolites. ***G. Narin****, Ç. B. Albayrak, Ö. Özturtsel, S. Selimoğlu, S. Ülkü.*
16:30 – 16:50	Study of the use the modified clinoptilolite as antimicrobial agent. ***S.A. Gobbi****, E. R. Santos, J. Silva*
16:50 – 17:10	*Chroococcus* (cyanobacteria) removal by Hellenic natural zeolite. ***A. Filippidis****, M. Moustaka-Gouni, N. Kantiranis, M. Katsiapi, G. Papastergios, V. Karamitsou, D. Vogiatzis, S. Filippidis*
17:10 – 17:30	Bio modified clinoptilolite – influence on microelement chelatization in bio transform lignite. ***K.I.Chakalov****, T.D.Popova, V.A.Savov*
17:30 – 18:30	Discussion - Poster Session II and Social Hour

Poster Session II
"New and Innovative Zeolite Applications"

PII-1. Morphological and electrochemical characterization of clinoptilolite versus Dye Blue-69 oxidation. *G. Zacahua-Tlacuatl, A. Manzo-Robledo, F. Chávez-Rivas, H. J. Dorantes-Rosales, R. Zamorano-Ulloa, I. Hernández-Pérez*.

PII-2. Role of natural zeolites in chemical evolution studies. *M. Colin-Garcia, A. Negron-Mendoza, J.L. Garcia, F. Ortega-Gutierrez, S. Ramos Bernal.*

PII-3. Performance of natural clinoptilolite zeolite in the catalytic degradation of polystyrene. *D.W. Park, D.K. Kim*

PII-4. Desiccation of methanol-water systems by some natural zeolites. *T. Kordzakhia, L. Eprikashvili, N. Pirtskhalava, M. Zautashvili, M. Dzagania*

PII-5. Use of a Mexican clinoptilolite for supporting hydrotreating NiMoW catalysts. *R. Huirache-Acuña, M. Ostrooumo[2], J. L. Rico*.

PII-6. Zeolite freeze drying: experimental observation. *D. Kirov, L. Filizova, G. Kirov*

PII-7. Thermal properties of natural zeolite containing borax decahydrate. *H. Bircan, E. Yorukogullari, H. A. Ozcelik.*

PII-6. Vacuum-induced framework contraction as a new route to the molecular gate effect in synthetic analogues of the mineral zorite. *S. Ferdov*.

PII-9. Synthesis of zeolites from sugar cane bagasse ash. *M. C. Shinzato, T. J. Montanheiro, S. Andrade, F. M. S. Carvalho, M. L. Silva.*

PII-10. Crystal chemical characterization and sorption ability of nano-sized microporous titanium silicate with pharmacosiderite structure. *V. Kostov-Kytin, N. Lihareva, R. Nikolova*

PII-11. Synthesis and characterization of faujasite analog SAPO-37. C.-M. Chiang, *I. Wang, T.-C. Tsai.*

PII-12. Ga-Mg-Al-hydrotalcite as catalyst for the benzylation of benzene and other aromatics by benzyl chloride reactions. *Z. Abdelssadek , N. Tahir , D. Halliche , S. Saadi , O. Cherifi*, *K. Bachari*.

PII-13. Aqueous interactions of natural zeolite in lactic acid medium. *I. Polatoglu and F. Cakicioglu-Ozkan*

Modeling of Zeolite Surfaces and Processes"

(Dedicated to Prof. Robert Bowman)

PII-14. Properties of mechanically activated natural zeolites. *V. A. Nikashina, A. N. Streletskii, I. N. Meshkova , I. B. Serova ., I .V. Kolbanev , V. G. Grinev., T. S. Yusupov, L .G. Shumskaya.*

PII-15. Kinetic study of petroleum monoaromatics uptake on the surface-modified granulated natural zeolites nanoparticles. *L. Seifi, A. Torabian, H. Kazemian, G. N. Bidhendi, A. Azimi.*

PII-16. Nature of interaction of fluorine-containing waters with East Siberian zeolites. *T. M. Martynova*.

PII-17. Uptake of zinc ions on iron-coated zeolite (clinoptilolite). *M. Ugrina, M. Trgo, J. Perić, A. Daković, N. Vukojević Medvidović, I. Nuić, S. Miličević, Ž. Sekulić, M. Kragović*

PII-18. A study of cationic surfactants modified natural zeolitic tuff: potential application as pharmaceutical excipient. *D. Krajišnik, A. Daković, M. Kragović, A. Malenović, M. Milojević, V. Dondur, S. Ristić, J. Milić.*

PII-19. Sorption of ammonium from surface water on clinoptilolite modified by polyethylenimine. *E.M. Kats, V.A. Nikashina*.

PII-20. Using of natural zeolites for styrene oligomerization. *S. Kowalak, A. Jankowska*

PII-21. Active fillers on the basis of clinoptilolite for polymers. *O. Lomtadze, K. Ebralidze, and N. Karkashadze*

PII-22. Textural, structural and adsorption properties of Tenerife volcanic tuff. *Z.Sarbak*.

PII-23. Adsorption of CO_2 on homoionic and dealuminated natural zeolite (clinoptilolite). *M. A Hernández, R Portillo, F. Rojas, F. Hernández, M. A.Salgado.*

PII-24. Synthesis of NaA zeolite from natural kaolinite. *D. Georgiev, B. Bogdanov, Y. Hristov, I. Markovska, and I. Petrov*

"Biomedical and Biotechnological Applications of Natural Zeolites"

PII-25. Clinoptilolite as protease inhibitor for possible employment in the delivery of peptidic drugs. *G.Cerri, A. Brundu, M.C. Bonferoni, C. Caramella, M. de Gennaro.*

PII-26. Variant investigation on the influence of clinoptilolite sorbent KLS-10 MA and lead in conditions of ecotoxicological experiments with laboratory mice. *M. Beltcheva, R Metcheva, M. Topashka-Ancheva, N. Popov, B. Blajev, J.A. Heredia.*

PII-27. Oral and dermal application of natural clinoptilolite in Bulgaria. *N. Izmirova, P. Uzunov, I. Tomova, M. Baeva, P. Blagoeva, Tz. Mircheva.*

PII-286. Influence of natural and modified zeolites on the biosynthesis of cellulase by strain *Trichoderma viride Sl-45*. *K. P. Karlucova, M. S. Badalova, G.V.Angelova Ts.V.Licheva, V.A.Savov*.

PII-29. Effects of feeding mice on a diet supplemented with Mongolian natural clinoptilolite (Clinomon) on certain hematological parameters and path histology analysis. *P. Odnoo, L. Oyuntsetseg.*

Wednesday, 14 July 2010

All-Day Trip to Rila Monastery

The Rila Monastery is regarded as one of Bulgaria's most important cultural, historical and architectural monuments. As a result, it is considered a key tourist attraction in Bulgaria and in Southeastern Europe as a whole

You will have the exquisite opportunity to enjoy the peaceful and calm atmosphere of Rila Monastery. In order to get a grasp of a very important part of the Bulgarian history, as well as to obtain knowledge about interesting facts about the monastery itself, we will provide professional English speaking guide and for your convenience the transport will be organized with a comfortable bus.

The lunch in a traditional Bulgarian restaurant will reveal some of the most unusual dishes from Bulgarian cuisine, which you find only here on the Balkan Peninsula.

09:30 – 11:00	Organized transportation to Rila monastery
11:00 – 13:15	Arrival at the monastery, a guided walking tour, free time, pictures
13:15 – 13:30	Back to the restaurant
13:30 – 15:00	Lunch
15:00 – 17:00	Transportation back to Sofia
19:30 – 20:00	***Organized transportation to the restaurant***
20:00 – 22:30	***National dinner – Folklore style dinner at the "Vodenitzata restaurant" in Vitosha mountain – optional***

Thursday, 15 July 2010

Session "Natural Zeolites in Environmental Applications and Radioactive Waste Control"

Onder Orhun (Turkey) and Andrea Buondonno (Italy) presiding

09:00 – 09:20	Effect of lead and zinc concentration ratio in aqueous solutions on their removal on fixed bed of clinoptilolite natural zeolite. ***M. Trgo****, J. Perić, N. Vukojević Medvidović, I. Nuić*

09:20 – 09:40	Sorption ability and potential environmental use of zeolitic rock from Xerovouni, Avdella, Evros, Hellas. ***E. Tzamos****, N. Kantiranis, G. Papastergios, D. Vogiatzis, A. Filippidis, C. Sikalidis, A. Tsirambidis, S. Vouta, S. Kalampaliki*
09:40 – 10:00	Possibility of arsenic sorption on chemically modified natural zeolite – characterization and application. ***K. Margeta****, Š. Cerjan Stefanović, N. Zabukovec Logar, M. Šiljeg*
10:00 – 10:20	Helminth eggs removal from municipal sewage for reuse of treated wastewater in agricultural irrigation and reuse of urban non-potable water through rapid filters (sand and zeolite). ***S.A. Gobbi****, I. Hespanhol*
10:20 – 10:40	***Coffee break***
10:40 – 11:00	Organic carbon and humic substances in zeolite amended anthropogenic clay soil in the region of Maritza-Iztok JSC coal mine complex. ***E. Filcheva****, T. D.Popova, K.I.Chakalov, K.D.Dimitrov*
11:00 – 11:20	Geochemical barriers based on clinoptilolite-containing tuffs for solution of environmental problems after underground emergency nuclear explosion at the site «Kraton-3» (Yakutiya). ***V. A. Nikashina****, I. B. Serova, E. M. Kats, N. A. Tikhonov, M. G. Tокmachev,* P.G. Novgorodov
11:20 – 11:40	Inertization of Cs and Sr radionuclides by thermal treatment of zeolite-rich Italian volcanoclastites. *G. Rapisardo, A. Colella, B. de Gennaro, P. Cappelletti, S.F. Graziano,* ***A. Langella****, D.L. Bish, M. de' Gennaro*
11:40 – 12:00	Effect of the type of exchangeable cations on the dehydration behaviour of heulandite: A comparative X-ray single crystal study. ***M. Kadiyski*** *and Th. Armbruster*
12:00 – 13:00	***Lunch***

Session "Zeolites in Agriculture and Animal nutrition"

Peter Leggo (UK) and Konstantin Chakalov (Bulgaria) presiding

13:00 – 13:30	Organo-zeolitic bio-fertilizers: a review of recent experiments. ***P. J. Leggo***
13:30 – 13:50	Natural zeolites in the indusytry of fertilizers – agronomic results. ***J. A. Febles,*** *G. M. S. Núñez*
13:50 – 14:10	Potential of agricultural use of a Brazilian sedimentary zeolite. ***A. C. C. Bernardi****, M. B. M. Monte, P. R. P. Paiva, F. C. Mendonça, P. P. A. Oliviera, J. C. Polidoro, C.G. Werneck, P. G. Haim, F. Souza-Barros.*
14:10 – 14:30	Modelling pedogenization of zeolitized tuff: effects of water and phenolic substances on weathering rates of Campanian Ignimbrite (yellow facies). **E. Grilli**, A. Colella, E. Coppola, A. Langella, A. Buondonno
14:30 – 14:50	Bio stabilized organic clinoptilolite fertilizer– duck guano JUGRA. *V.A.Savov,* ***K.I.Chakalov****, T.D.Popova, G.Angelova.*
14:50 – 15:10	***Break***
15:10 – 15:30	Investigation on dietary effects of natural zeolites on poultry nutrition. ***A. H. Toghdory.***
15:30 – 15:50	The effect of natural zeolite on organism of lamb under pasturel condition in winter and spring. ***M. Zolzaya,*** *Sh.Demberel*
15:50 – 16:10	Increasing levels of zeolites (clinoptilolite) in diets for dogs - influence on fecal consistency and fecal odor reduction. *G.V.C. Maia,* ***F.B. Filho.***
16:10 – 16:30	Comparison of different levels of natural zeolite and glauconite on broilers performance and tibia bone characteristics. *M.H. Safari, M. Shams Shargh,* ***A. Tatar,*** *A. Amini.*
16:30 – 17:30	INZA Business Meeting – *Panagiotis Misailidis*, President, presiding • Discussion of date and venue of next INZA Conference

	• Election of officers and councilors • Election of new president of INZA
17:30 – 18:30	Discussion - Poster Session III and Social Hour
20:00 – 23:00	***Closing Dinner - Kempinski Hotel Zografski*** All participants, guests and accompanying persons are invited to the Official dinner that will take place in the restaurant of the 5-star Kempinski Hotel Zografski.

Poster Session III

"Natural Zeolites in Environmental Applications and Radioactive Waste Control"

PIII-1. Sorption of uranium from acidic aqueous solutions by chabazite- and phillipsite-containing tuffs. *P. Misaelides, D. Zamboulis, A. Godelitsas, D.-A. Gabura, I. Cretescu,*

PIII-2. Removal of copper and lead by clinoptilolite and clinoptilolite-iron system. *M. Kragović, S. Milićević, A. Daković, J. Perić, M. Trgo, N. Vukojević Medvidović, M. Ugrina[2], Ž. Sekulić, I Nuić.*

PIII-3. Technological aspects of waste water treatment from organic pollutants with use of natural zeolite and its modified analogs. *G.Torosyan, A.Isakov, A.Aleksanyan, V.Davtyan, N.Torosyan, D.Hovhannisyan.*

PIII-4. Natural clay minerals as sulphur dioxide adsorbents. *M. Sakızcı, B. Erdoğan Alver, E. Yörükoğulları.*

PIII-5. Porosity of natural zeolites from Mexico. *M. A. Hernández, R. Portillo, M. A. Salgado, F. Rojas, M.A. Calderon.*

PIII-6. Treatment of lead contaminated industrial waste waters using modified natural zeolites. *J. C. Romero, K. Kaul, C. Ronquillo, R. A. Véliz.*

PIII-7. Mineral nutrition of wheat *Triticum aestivum* under the condition of soilless reclamation of clay spoil in the region of Maritza-Iztok JSC coal mine complex. *T. D.Popova, K.I.Chakalov, E. Filcheva.*

PIII-8. Geochemical barrier on natural zeolite base in the path of radionuclide migration on the object UNE "Kraton-3". *P.G. Novgorodtzev , V.A. Nikashina , A.R. Alexandrov.*

PIII-9. Adsorption of phenol and para-nitrophenol from aqueous solutions by natural and surfactant-modified clinoptilolite. *M. Abatal, M.T. Olguin.*

PIII-10. Tribochemical modification of natural Apatite mixed with NH_4-exchanged clinoptilolite for environmental applications. *N. Petrova, V. Petkova.*

"Zeolites in Agriculture and Animal nutrition"

PIII-11. Morpho-structural and chemical-physical properties of soil ped aggregate models by interaction of phillipsite-chabazitic or clinoptilolitic tuffs with different organic matter. ***A. Buondonno**, E. Coppola, B. de' Gennaro, A. P. Leone, A. Letizia, C. Colella.*

PIII-12. Exchange-cations budget in soils amended with clinoptilolite or phillipsite+chabazite bearing tuffs under repeated treatments with municipal sewage. *A. Buondonno, G. F. Capra, E. Coppola, B. de' Gennaro, M. G. Duras, S. Vacca, C. Colella.*

PIII-13. Clinoptilolite in agricultural applications. *L. Deligianni, D. Petounis, M. Voulgari.*

PIII-14. Evaluation of Pb in zeolitites used for animal diet: some implications based on current legislation. *M. Mercurio, V. Monetti, P. Cappelletti, A. Langella and M. de' Gennaro*.

PIII-15. Non-equivalent influence of clinoptilolite and phillipsite containing rocks on the green mass and seed yield of dill. *T. Andronikashvili, K. Beriashvili, N. Burkiashvili, and I. Rubashvili*

PIII-16. The influence of organo-zeolitic fertilizers on yield, formation of the assimilating apparatus, and cobbing of maize. *T. Andronikashvili, M. Kardava, T. Kordzakhia, and M. Gamisonia*

PIII-17. Application of laumontite for wheat crop increase. *G.V. Tsitsishvili, S.L. Urotadze, T.G. Andronikashvili, N.A. Osipova, T.K. Kvernadze, and V. G. Tsitsishvili*

"Natural Zeolites in Cement and Ceramic Bodies"

PIII-18. Investigation of the properties of natural chabazite at high temperature. *H. A. Ozcelik, E. Yorukogullari*

PIII-19. Lighter with higher porosity mortar using Hellenic natural zeolite. *D.N. Vogiatzis, N.A. Kantiranis, A.A. Fillipidis, B.G. Christaras, C.A. Sikalidis, G.K. Papastergios, E.I. Tzamos.*

PIII-20. Rheological study of cement pastes with addition of natural zeolites. *V. Lilkov, O. Petrov.*

PIII-21. SEM and porosity studies of cements with additions of natural zeolites. *V. Lilkov, O. Petrov.*

PIII-22. Physical and mechanical characteristic of cement mortars with addition of clinoptilolite from Beli plast deposit (Bulgaria), silica fume and fly ash:Part 2. SEM and porosimetry examinations. *V. Lilkov, I. Rostovsky, O. Petrov.*

PIII-23. Effects of zeolite incorporation on the curing of self-compacting white mortars. *V. Stotyanov, V. Petkova, O. Petrov*.

PIII-24. Use of natural clinoptilolite for densification of the structure of white cement mortars. *V. Stotyanov, V. Petkova, D. Pashkouleva.*

PIII-25. Study of the pozzolanic activity and hydration products of cement pastes with addition of natural zeolites. *V. Lilkov, O. Petrov,.V. Petkova, N. Petrova.*

PIII-26. Use of natural zeolites for preventing sulfate corrosion of concrete. *Li Yaling.*

Friday, 16 July 2010

Session "Natural Zeolites in Cement and Ceramic Bodies"

Atanasios Godelitsas (Greece) and Ivan Rostovsky (Bulgaria) presiding

09:30 – 09:50	The pozzolanic reaction of natural zeolites with portlandite and cement – study of reaction kinetics and products by *in situ* synchrotron X-ray diffraction. ***R. Snellings**, G. Mertens, J. Elsen*

09:50 – 10:10	Use of Iranian natural zeolite as an alternative to silica fume or fly ash in concrete. ***B. Ahmadi****, F. Ghassemzadeh, F. Moradi, M. Shekarchi, J. Eftekharnezhad.*
10:10 – 10:30	***Coffee break***
10:30 – 10:50	Investigation of the properties of natural and modified clinoptilolite at high-temperature. ***E. Yorukogullari****, H. A. Ozcelik.*
10:50 – 11:10	Physical and mechanical characteristics of cement mortars with addition of clinoptilolite (Beli plast deposit, Bulgaria), silica fume and fly ash: Part 1. Determination of the pozzolanic activity, strength and heat of hydration. ***I. Rostovsky,*** *V. Lilkov.*
11:10 – 11:30	Use of nano-modified natural zeolites as additions to building materials. ***G.P. Tsintskaladze****, V.G. Tsitsishvili, P.E. Tskhvitaridze, B.F. Keshelava, G.Sh. Tatarashvili, T.V. Sharashenidze*
11:30 – 12:00	Concluding remarks and closing the sessions
14:00	***Depart post-conference field trip to Bulgarian zeolite deposits – optional tour***
14.00 – 15.30	Departure from Sofia, from reception of your hotel.
15:30 – 17:30	Walking tour in the old town of Plovdiv and departure to Haskovo
19:00 -	Arrival to Haskovo and accommodation

Saturday, 17 July 2010

09:00 – 12:00	Haskovo – Golobradovo zeolite deposit (42 km) **Stop 1***, Golobradovo - Kardzhali (47.5 km)
12:30 – 14:00	Lunch in the hotel in Kardzhali
14:00 – 18:00	Kardzhali – Dazhdovnitsa (12 km) **Stop 2****; Dazhdovnitsa – Kardzhali (12km) – Zhelezni Vrata zeolite quarry (5 km) **Stop 3 *****
18:30	Arrival to Kardzhali and accommodation

Sunday, 18 July 2010

09:00 – 12:00	Kardzhali – Perperikon (21 km) **Stop 4 *****, Perperikon – Beli Plast – Haskovo (38 km)
12:30 – 14:00	Lunch in the hotel in Haskovo
14:30 – 17:30	Departure back to Sofia from Haskoro (224 km)