

Oral Programme BC1

Clays & Biomolecules: From the Origin of Life to Medical Applications

Conveners: Enzo Gallori, Qiaoyun Huang

Sunday 14 June, 2009

Chairs: Enzo Gallori & F. Javier Huertas

- 11.00 – 11.30 BC1a.Sun.KL1
*Herve Quiquampoix**
PROTEINS AND CLAYS: MECHANISMS OF INTERACTION
- 11.30 – 11.50 BC1a.Sun.L2
Rosalba Bonaccorsi, Christopher P. McKay, Carol R. Stoker*
BIOSIGNATURES PRESERVATION POTENTIAL AND HABITABILITY IN PHYLLOSILICATES VS. IRON-RICH ENVIRONMENTS AS MARS ANALOGUES
- 11.50 – 12.10 BC1a.Sun.L3
Hiromoto Nakazawa, Yoshihiro Furukawa, Toshimori Sekine, Oba Masahiro, Takeshi Kakegawa*
THE REASON WHY BIOMOLECULES ARE ALL HYDROPHILIC AND CLAY-AFFINITIVE
- 12.10 – 12.30 BC1a.Sun.L4
Dirk Schumann, Hyman Hartman, Denis Eberl, S. Kelly Sears, Reinhard Hesse, Hojatollah Vali*
INVESTIGATING THE LAYER STRUCTURE OF ILLITE/SMECTITE MIXED LAYER AS A MODEL FOR SELF-REPLICATING SYSTEM
- 12.30 – 12.50 BC1a.Sun.L5
*Nikolai P. Yushkin**
SIMPLEST BIOMODELLING SYSTEM: NATURAL GEL - MONTMORILLONITE

LUNCH 12.50-14.20

Sunday 14 June, 2009

Chairs: Enzo Gallori & Fabio Tateo

- 14.30 – 15.00 BC1b.Sun.L1
*Giovanni Valdre'**
RELATIONSHIP BETWEEN NANOMORPHOLOGY AND SURFACE POTENTIAL OF CLAY AND LAYERED MINERALS AND INTERACTIONS WITH BIOMOLECULES
- 15.00 – 15.20 BC1b.Sun.L2
Elisabetta Foresti, Marco Lelli, Giorgio Isidoro Lesci, Fabio Tateo, Norberto Roveri*
STUDY ON THE INTERCALATION AND RELEASE OF ZN-PCA- SAPONITIC BENTONITE
- 15.20 – 15.40 BC1b.Sun.L3
Cliff t. Johnston, Robert A. Schoonheydt, Gnanasiri S. Premachandra, Tamas Szabo*
LYSOZYME SORPTION ON SMECTITE
- 15.40 – 16.00 BC1b.Sun.L4
*Hella Mansouri, Abdesslem Ben Haj Amara, Vanessa Prevot, Christine Taviot-Gueho, Claude Forano**
IMMOBILIZATION OF TRYPSINE AND CHYMOTRYPSINE IN MG-AL AND ZN-AL LAYERED DOUBLE HYDROXIDE
- 16.00 – 16.20 BC1b.Sun.L5
Bernd Wicklein, Margarita Darder, Pilar Aranda, Eduardo Ruiz-Hitzky*
PHOSPHATIDYLCHOLINE-CLAY SYSTEMS AS ARTIFICIAL LIPID MEMBRANE SUPPORTS OF BIOLOGICAL SPECIES

Poster Programme BC1

Posting Time: Saturday 13 June; **Removal:** Monday 15 June, 12.50-14.30;

Attendance Time: Sunday, 14 June, 18:30–20:00

Chairs: Enzo Gallori & Giovanni Valdré

- BC1.Sun.P1 *Sergio Branciamore, Giulia Talini, Enzo Gallori**
CLAY MINERALS AND THE ORIGIN OF GENETIC INFORMATION
- BC1.Sun.P2 *U. Sohling*, F. Ruf, K.Ralla, D. Riechers, C. Kasper, T. Scheper*
ADSORPTION AND SEPARATION OF PROTEINS WITH SMECTITIC CLAY MINERALS
- BC1.Sun.P3 *Bhavesh Kevadiya, Hasmukh A. Patel, Ghanshyam V. Joshi, Hari C. Bbajaj**
CONTROL RELEASE OF IMPORTANT DRUG MOLECULES FROM MONTMORILLONITE-DRUG HYBRIDS
- BC1.Sun.P4 *Qiong He, Dongyun Zheng, Shengshui Hu**
DEVELOPMENT AND APPLICATION OF A NOVEL NA-MONTMORILLONITE BASED SEROTONIN SENSOR
- BC1.Sun.P5 *Yves Chapron**
INTERACTION OF PEPTIDE PrP(92-138) AND MINERAL SURFACE
- BC1.Sun.P6 *Amaranta Pucci*, Sergio Branciamore, Marco Casarosa, Luigi Paolo D'acqui, Enzo Gallori*
NUCLEOBASES AND CLAY MINERAL: INTERACTION AND IMPLICATIONS FOR THE RNA WORLD
- BC1.Sun.P7 *Adi Radian*, Rachel Nechushtai, Yael Mishael*
IRON BINDING PROTEIN-CLAY COMPOSITES; EFFECT OF FE-S CLUSTER ON FERREDOXIN-CLAY INTERACTIONS

Oral Programme BC2

Clays - Living Organisms Interactions

Conveners: Javier Cuadros, Richard H. Worden

Monday 15 June, 2009

Chair: Richard H. Worden

- 08.50 – 09.20 BC2a.Mon.KL1
*Eduardo Ruiz-Hitzky**, *Margarita Darder*, *Pilar Aranda*, *M. Ángeles Martín Del Burgo*, *Gustavo Del Real*
BIONANOCOMPOSITES BASED ON CLAYS AS SUPPORT OF MICROORGANISMS
- 09.20 – 09.40 BC2a.Mon.L2
*Gemma M. Byrne**, *Patrick J. Doney*, *Richard H. Worden*, *David M. Hodgson*
INVESTIGATIONS INTO CLAY MINERAL FORMATION IN A TEMPERATE ENVIRONMENT
- 09.40 – 10.00 BC2a.Mon.L3
*Javier Cuadros**, *Luca Aldega*, *Anita Parbhakar*, *Jonathan Vetterlein*, *William Dubbin*, *Dominik Weiss*, *Kurt Drickamer*, *Mark Sephton*, *Barry Coles*
ADSORPTION OF L-LYSINE ON MONTMORILLONITE AND REACTIONS AT 80 °C
- 10.00 – 10.20 BC2a.Mon.L4
*J.M. Arocena**, *B. Velde*
TRANSFORMATION OF CHLORITES BY PRIMARY BIOLOGICAL AGENTS – A REVIEW
- 10.20 – 10.40 BC2a.Mon.L5
*Loïc Esnault**, *Marie Libert*, *Christian Mustin*, *Michel Jullien*
ROLE OF STRUCTURAL FE (III) FOR BACTERIAL DEVELOPMENT IN EXTREME CONDITIONS IN DEEP CLAY-RICH ENVIRONMENTS

COFFEE BREAK 10.40-11.00

Monday 15 June, 2009

Chair: Javier Cuadros

- 11.00 – 11.30 BC2b.Mon.L1
*Gail Davey**, *Peter Baxter*, *Jennifer Le Blond*
ULTRAFINE CLAY MINERALS AND HUMAN HEALTH: THE EXAMPLE OF PODOCONIOSIS
- 11.30 – 11.50 BC2b.Mon.L2
*Richard H. Worden**
THE WORM GUT; A NATURAL CLAY MINERAL FACTORY AND A POSSIBLE CAUSE OF DIAGENETIC GRAIN COATS IN SANDSTONES
- 11.50 – 12.10 BC2b.Mon.L3
Santiago Leguey, *Jaime Cuevas**, *Ana I. Ruiz*, *David Ruiz De León*
THE ROLE OF BIOMINERALIZATION IN THE ORIGIN OF SEPIOLITE AND DOLOMITE IN THE MIOCENE BASIN OF MADRID (CENTRAL SPAIN)
- 12.10 – 12.30 BC2b.Mon.L4
*A.O. Alekseev**, *T.V. Alekseeva*, *L.M. Gerasimenko*, *V.K. Orleanskiy*, *G.T. Ushatinskaya*
TRANSFORMATION OF CLAY DUE TO ACTIVITY OF ALKALINE CYANOBACTERIA MICROCOLES CHTHONOPLASTES AND RHABDODERMA LINEARE
- 12.30 – 12.50 BC2b.Mon.L5
*Alfred Geptner**
LAYER SILICATES MINERALIZING MICROBIOTA IN PROCESS OF HYDROTHERMAL ALTERATION OF BASALT PILES IN ICELAND

Poster Programme BC2

Posting Time: Saturday 13 June. **Removal:** Monday 15 June, 12.50-14.30;

Attendance Time: Sunday, 14 June, 18:30–20:00

Chairs: Javier Cuadros & Richard H. Worden

- BC2.Sun.P1 *Tatyana Ivanovskaya**, *Alfred Geptner*
ON BIOCHEMICAL ORIGIN OF GLAUCONITE IN PALEOGENE VOLCANO-TERRIGENOUS ROCKS IN KAMCHATKA
- BC2.Sun.P2 *Pascale Besse-Hoggan*, *Tatiana Alekseeva**, *Martine Sancelme*, *Vanessa Prévot*, *Claude Forano*
EFFECT OF PSEUDOMONAS sp. ADP – ANIONIC CLAY INTERACTIONS ON ATRAZINE BIODEGRADATION
- BC2.Sun.P3 *Laura Morales**, *Eduardo Garzón*, *P.J. Sánchez-Soto*
APPLICATION OF A COMPOSITE OF MICROBIOLOGICAL BASE CONTAINING CALCIUM FOR THE STABILIZATION OF SOILS USED IN LINEAR CONSTRUCTION
- BC2.Sun.P4 *Ayşe Tosun**, *Mübeccel Ergun*
EFFECT OF CA-MONTMORILLONITE ON ETHANOL PRODUCTION USING SYNTHETIC MOLASSES
- BC2.Sun.P5 *Peter Krolla-Sidenstein**, *René Kaden*, *Katja Emmerich*, *Kerstin Petrick*, *Linglan He*, *Hartmut Gliemann*
METHODS CHARACTERISING MICROBIAL COMMUNITY COMPOSITION DURING CLAY AGING
- BC2.Sun.P6 *Pauline Andrieux**, *Sfaw Zegeye*, *Maggie White*, *Anke Neumann*, *Claire Fialips*, *Sani Yahaya*, *Thomas Hofstetter*, *Sabine Petit*
BACTERIAL AND CHEMICAL REDUCTION OF FE(III) IN SYNTHETIC NONTRONITE
- BC2.Sun.P7 *Malgorzata Grybos**, *Patrick Billard*, *Laurent Michot*, *Christian Mustin*
MICROBIAL DISSOLUTION OF COLLOIDAL SIZE PHYLLOSILICATE
- BC2.Sun.P8 *Ana Quintela**, *Salomé F.P. Almeida*, *Fernando Rocha*, *Ferreira Da Silva*, *Victor Forjaz*, *Denise Terroso*, *João Serôdio*
MICROALGAE DEVELOPMENT ON VOLCANIC MUD SAMPLES UNDER MATURATION PROCESS
- BC2.Sun.P9 *Dawn Geatches**, *Chris Greenwell*, *Stewart Clark*
THE WAYS OF CLAYS AND THEIR GALLERY GUESTS