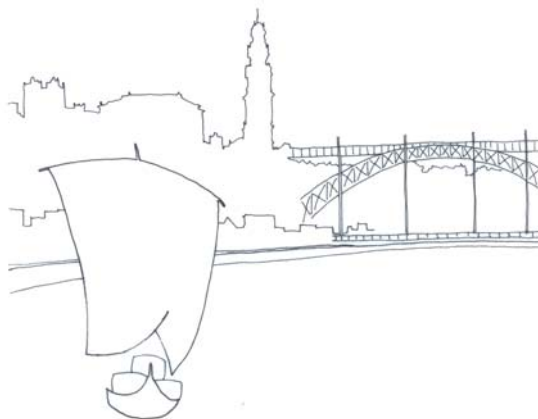


6th MEDITERRANEAN CONFERENCE ON CALORIMETRY AND THERMAL ANALYSIS

CATPOR, AICAT, GECAT, GICAT, HSTA, IGCAT

MEDICTA 2003



27 - 30 JULY 2003

**DEPARTMENT OF CHEMISTRY - FACULTY OF SCIENCE
UNIVERSITY OF PORTO
PORTUGAL**

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PROGRAM

SUNDAY 27

15h30 **REGISTRATION**
18h00 **"GET TOGETHER"**

MONDAY 28

9h00 - 9h30 **OPENING CEREMONY**
Chair: Manuel A. V. Ribeiro da Silva

9h30 - 10h30 **THE SOLVATION OF FREE RADICALS. PHOTOACOUSTIC CALORIMETRY AND COMPUTATIONAL STUDIES**
José A. Martinho Simões

10h30 - 11h00 **COFFEE BREAK**
Chair: Maria Rosaria Tiné

11h00 - 12h00 **ENERGETIC COCKTAIL**
José Luis Abboud

12h00 - 14h00 **LUNCH**
Chair: Giovanni Rialdi

14h00 - 15h00 **HOW DO THE MATHEMATICAL MODELS OF CALORIMETERS REALLY WORK?**
Wojciech Zielenkiewicz

15h00 - 15h30 **SOME REFLECTIONS ABOUT POSSIBLE SYSTEMATIC ERRORS IN THE DETERMINATION OF MINUTE HEAT QUANTITIES AND THERMAL POWERS**
Ingemar Wadsö

15h30 - 16h00 **RECOGNITION OF GUESTS CONTAINING CH₃ AND CH₂ ACIDIC GROUPS BY DIFFERENTLY RIGIDIFIED CONE CONFORMERS OF p-TERT-BUTYLCALIX[4]ARENE**
G. Arena, A. Contino, E. Longo, G. Spoto, C. Sgarlata, A. Arduini, C. Massera, A. Pochini, A. Secchi, F. Ugozzolic

16h00 - 16h30 **COFFEE BREAK**

16h30 - 18h00 **POSTER SESSION**
Sections 1 and 2

19h00 **TOWN HALL RECEPTION**

TUESDAY 29

Chair: Ingemar Wadsö

9h00 - 10h00 **PROTEIN STRUCTURE VS CALORIMETRY AND OTHER PHYSICAL CHEMICAL TECHNIQUES**
Giovanni Rialdi

10h00 - 10h30 **THE GENETIC CODE IS A SYSTEM OF INTERLOCKING THERMODYNAMIC CYCLES**
Horst H. Klump

10h30 - 11h00 **COFFEE BREAK**

Chair: Alberto Schiraldi

11h00 - 11h30 **THE EVALUATION OF THERMOCHEMICAL PROPERTIES OF GROUP-III NITRIDES: BN AND GaN**
Iwona Tomaszekiewicz

11h30 - 12h00 **ARE ISATIN AND ISATOIC ANHYDRIDE ANTIAROMATIC AND AROMATIC RESPECTIVELY? A COMBINED EXPERIMENTAL AND THEORETICAL INVESTIGATION**
M. Agostinha R. Matos, Margarida S. Miranda, Victor M. F. Morais, Joel F. Liebman

12h00 - 12h45 **ORAL COMMUNICATIONS**
Section 5 - C5-1, C5-2, C5-3

Chair: Giuseppe Della Gata

12h00 - 12h45 **ORAL COMMUNICATIONS** (Room 2)
Section 6 - C6-1, C6-2, C6-3

13h00 - 14h30 **LUNCH**

Chair: Giuseppe Arena

14h30 - 15h30 **CALORIMETRY AN IMPORTANT TOOL IN SOLUTION CHEMISTRY**
Henryk Piekarski

15h30 - 16h00 **WATER PROPERTIES IN FOOD SYSTEMS**
A. Schiraldi, D. Fessas

16h00 - 16h30 **COFFEE BREAK**

Chair: Wojciech Zielenkiewicz

16h30 - 17h00 **CORRELATIONS BETWEEN THERMODYNAMIC DATA FOR THE SUBLIMATION AND FUSION EQUILIBRIA**
Manuel J. S. Monte

17h00 - 18h00 **ORAL COMMUNICATIONS**
Room 1: Section 3 - C3-1, C3-2, C3-3, C3-4

Chair: Shmuel Yariv

17h00 - 18h00 **ORAL COMMUNICATIONS** (Room 2)
Section 5 - C5-4, C5-5, C5-6, C5-7

20h00 **CONFERENCE DINNER**

Chair: José A. Martinho Simões

9h00 - 10h00 **PHARMACEUTICAL MICROCALORIMETRY: RECENT ADVANCES IN THE STUDY OF SOLID STATE MATERIALS**
Anthony E Beezer, Michael A A O'Neill, Andrew C Morris, Koji Urakami, Joseph A Connor, John Tetteh

10h00 - 10h30 **PARTIAL MOLAR HEAT CAPACITIES $C_{p,2}^\infty$ OF SMALL PEPTIDES IN WATER AT 298.15 K BY ISOTHERMAL CALORIMETRY**
Giuseppe Della Gatta, Tatiana Usacheva, Elena Badea, Bartłomiej Palecz

10h30 - 11h00 **COFFEE BREAK**

Chair: Anthony E. Beezer

11h00 - 11h30 **ON THE CONFORMATIONAL STABILITY AND DIMERIZATION OF PHOSPHOTRANSFERASE ENZYME I FROM *E. COLI***
Ann Ginsburg

11h30 - 12h00 **THERMODYNAMIC CHARACTERIZATION OF FERROCHELATASE AND ITS INTERACTION WITH MESOPORPHIRIN IN AQUEOUS SOLUTION**
Guangyue Bai, Ricardo Franco, Vesna Prosinecki, Teresa Rodrigues, Margarida Bastos

12h00 - 12h45 **ORAL COMMUNICATIONS**
Section 2 - C2-1, C2-2, C2-3

Chair: Maria Victoria Roux

12h00 - 12h45 **ORAL COMMUNICATIONS** (Room 2)
Sections 4 and 7 - C4-1, C4-2, C7-1

13h00 - 14h00 **LUNCH**

Chair: Henryk Piekarski

14h00 - 15h00 **DESIGN OF AN EXPERIMENTAL PROCEDURE FOR ENERGETIC EVALUATION OF FOREST BIOMASS**
L. Núñez-Regueira, J. Proupin-Castifeiras, J. A. Rodríguez-Añón

15h00 - 15h30 **THE DIRECT USE OF THE MASS OUTPUT OF A THERMOBALANCE FOR CONTROLLING THE REACTION RATE OF SOLID STATE REACTIONS**
M. J. Diáñez, L. A. Pérez Maqueda, J. M. Criado

15h30 - 16h00 **THERMO-VISIBLE-ABSORPTION SPECTROSCOPY STUDY OF THE PROTONATED CONGO-RED-MONTMORILLONITE COMPLEX**
Zohar Yermiyahu, Isaak Lapides, Shmuel Yariv

16h00 - 16h30 **COFFEE BREAK**

16h30 - 18h00 **POSTER SESSION**
Sections 3, 4, 5, 6 and 7

18h00 - 18h30 **CLOSING CEREMONY**

LIST OF COMMUNICATIONS

PLENARY LECTURES

PL1 THE SOLVATION OF FREE RADICALS. PHOTOACOUSTIC CALORIMETRY AND COMPUTATIONAL STUDIES

José A. Martinho Simões

PL2 ENERGETIC COCKTAIL

José-Luis M. Abboud

PL3 HOW DO THE MATHEMATICAL MODELS OF CALORIMETERS REALLY WORK?

Wojciech Zielenkiewicz

PL4 PROTEIN STRUCTURE VS CALORIMETRY AND OTHER PHYSICAL CHEMICAL TECHNIQUES

Giovanni Rialdi

PL5 CALORIMETRY AN IMPORTANT TOOL IN SOLUTION CHEMISTRY

Henryk Piekarski

PL6 PHARMACEUTICAL MICROCALORIMETRY: RECENT ADVANCES IN THE STUDY OF SOLID STATE MATERIALS

Anthony E. Beezer, Michael A A O'Neill, Andrew C Morris, Koji Urakami, Joseph A Connor and John Tetteh

PL7 DESIGN OF AN EXPERIMENTAL PROCEDURE FOR ENERGETIC EVALUATION OF FOREST BIOMASS

L. Núñez-Requeira, J. Proupín-Castiñeiras and J. A. Rodríguez-Añón

KEY LECTURES

K1 SOME REFLECTIONS ABOUT POSSIBLE SYSTEMATIC ERRORS IN THE DETERMINATION OF MINUTE HEAT QUANTITIES AND THERMAL POWERS

Ingemar Wadsö

K2 RECOGNITION OF GUESTS CONTAINING CH₃ AND CH₂ ACIDIC GROUPS BY DIFFERENTLY RIGIDIFIED CONE CONFORMERS OF p-TERT-BUTYLCALIX[4]ARENE

G. Arena, A. Contino, E. Longo, G. Spoto, C. Sgarlata, A. Arduini, C. Massera, A. Pochini, A. Secchi, F. Ugozzoli

K3 THE GENETIC CODE IS A SYSTEM OF INTERLOCKING THERMODYNAMIC CYCLES

H. H. Klump

K4 THE EVALUATION OF THERMOCHEMICAL PROPERTIES OF GROUP-III NITRIDES: BN AND GaN.

Iwona Tomaszekiewicz

K5 ARE ISATIN AND ISATOIC ANHYDRIDE ANTIAROMATIC AND AROMATIC RESPECTIVELY? A COMBINED EXPERIMENTAL AND THEORETICAL INVESTIGATION

M. Agostinha R. Matos, Margarida S. Miranda, Victor M. F. Morais, Joel F. Liebman

K6 WATER PROPERTIES IN FOOD SYSTEMS

A. Schiraldi and D. Fessas

K7 CORRELATIONS BETWEEN THERMODYNAMIC DATA FOR THE SUBLIMATION AND FUSION EQUILIBRIA

Manuel J. S. Monte

K8 PARTIAL MOLAR HEAT CAPACITIES $C_{p,2}^{\infty}$ OF SMALL PEPTIDES IN WATER AT 298.15 K BY ISOTHERMAL CALORIMETRY

Giuseppe Della Gatta, Tatiana Usacheva, Elena Badea, Bartłomiej Palecz

- K9 ON THE CONFORMATIONAL STABILITY AND DIMERIZATION OF PHOSPHO-TRANSFERASE ENZYME I FROM *E. COLI***
Ann Ginsburg
- K10 THERMODYNAMIC CHARACTERIZATION OF FERROCHELATASE AND ITS INTERACTION WITH MESOPORPHIRIN IN AQUEOUS SOLUTION**
Guangyue Bai, Ricardo Franco, Vesna Prosinecki, Teresa Rodrigues and Margarida Bastos
- K11 THE DIRECT USE OF THE MASS OUTPUT OF A THERMOBALANCE FOR CONTROLLING THE REACTION RATE OF SOLID STATE REACTIONS**
M. J. Diáñez, L. A. Pérez Maqueda and J. M. Criado
- K12 THERMO-VISIBLE-ABSORPTION SPECTROSCOPY STUDY OF THE PROTONATED CONGO-RED-MONTMORILLONITE COMPLEX**
Zohar Yermiyahu, Isaak Lapides and Shmuel Yariv

SECTION 1 – SOLUTION AND CHEMICAL THERMODYNAMICS

- P1-1 THERMOCHEMISTRY OF NaI, NaBPh₄ AND Ph₄PI SOLUTIONS IN MIXTURES OF ACETONITRILE WITH ORGANIC COSOLVENTS AT 298,15 K**
A. Piekarska, K. Kubalczyk, H. Piekarski
- P1-2 SODIUM DODECANOATE/SODIUM PERFLUOROOCTANOATE MIXTURES IN AQUEOUS β -CYCLODEXTRIN SOLUTIONS. VOLUME AND HEAT CAPACITY STUDIES**
R. De Lisi, G. Lazzara, S. Milioto and N. Muratore
- P1-3 A MASS ACTION MODEL FOR THE THERMODYNAMICS OF INTERACTION BETWEEN PLURONICS AND SURFACTANTS**
Rosario De Lisi, Giuseppe Lazzara, Stefania Milioto and Nicola Muratore
- P1-4 ENTHALPIC INTERACTIONS OF SOME ISOLEUCYL DIPEPTIDES IN AQUEOUS SOLUTIONS AT 298.15 K**
Stefano Vecchio, Marta Letizia Antonelli, Claudio Spadaro
- P1-5 CALORIMETRIC STUDY OF THE SOLUBILIZATION PROCESS OF ACETONE IN AOT/WATER/ISO-OCTANE MICROEMULSION**
Paola Fini, Maurizio Castagnolo, Lucia Catucci, Pinalysa Cosma and Angela Agostiano
- P1-6 THE EFFECTS OF SALT ON THE INTERACTIONS BETWEEN CHLOROPHYLL *a* AND β -CYCLODEXTRINS IN AQUEOUS SOLUTIONS**
Paola Fini, Pasquale Dentuto, Lucia Catucci, Pinalysa Cosma and Angela Agostiano
- P1-7 FORMATION OF CdS NANOCCLUSERS IN TERNARY AND QUATERNARY W/O MICROEMULSIONS: A CALORIMETRIC INVESTIGATION**
Paola Fini, Fabio Ciampi, M. Lucia Curri, Maurizio Castagnolo and Angela Agostiano
- P1-8 THE STUDY OF ADSORPTION THERMODYNAMICS OF *n*-HEXANE ON ION-EXCHANGED ZEOLITES**
Radmila Hercigonja, Vera Dondur, Vesna Rakić
- P1-9 VARIATION OF DENSITIES, REFRACTIVE INDICES AND SPEEDS OF SOUND WITH TEMPERATURE OF HEXANE + 1-OCTANOL**
Beatriz E. de Cominges, Manuel M. Piñeiro, Javier Vijande, Teresa P. Iglesias, José L. Legido, María Inmaculada Paz Andrade
- P1-10 SURFACE TENSION OF THE BINARY MIXTURES: METHANOL + ETHYL PROPIONATE AND METHANOL + ETHYL BUTYRATE AT 303.15 K**
M.Lj.Kijevcanin, I. S. A. Ribeiro, A. G. M. Ferreira, I. M. A. Fonseca
- P1-11 PHASE BEHAVIOUR OF CATIONIC MIXTURES OF GEMINI SURFACTANTS AND THE BILE SALT STDC**
Yujie Wang, Eduardo F. Marques

- P1-12 THERMAL PARAMETERS OF BUTANOL SOLUBILIZATION IN MICELLAR SOLUTIONS**
Alfredo González-Pérez, Juan José Galán, Julio R. Rodríguez
- P1-13 ESTIMATION OF THERMODYNAMIC FUNCTIONS AND HEAT CAPACITY IN MICELLIZATION PROCESS OF CETYLPIRIDINIUM BROMIDE IN AQUEOUS SOLUTION**
Juan J. Galán, Alfredo González-Pérez, Julio R. Rodríguez
- P1-14 ENTHALPY FOR THE HYDRATION OF *meso*-ERYTHRITOL AND L-(-)-THREITOL**
Luciana I. N. Tomé, A. J. Lopes Jesus, M. Ermelinda Eusébio, M. Luísa P. Leitão, J. S. Redinha
- P1-15 DENSITIES AND SURFACE TENSIONS OF AQUEOUS SOLUTIONS OF 1-PENTANOL, 1-HEXANOL, 1-HEPTANOL AND 1-OCTANOL AT VARIOUS COMPOSITIONS AND SEVERAL TEMPERATURES**
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- P1-16 PHYSICAL PROPERTIES OF THE MIXTURES MTBE + ETHANOL, PROPANOL, BUTANOL, PENTANOL AND HEXANOL AT 298.15 K**
Julieta Jiménez de Llano, Montse Domínguez-Pérez, Manolo Cabanas, Luisa Segade, Carlos Franjo
- P1-17 EXCESS MOLAR VOLUMES AND ENTHALPIES FOR THE BINARY SYSTEMS PROPYL PROPANOATE + o-XYLENE, m-XYLENE, AND p-XYLENE AT 298.15 K**
Montserrat Domínguez-Pérez, Julieta Jiménez de Llano, Luisa Segade, Oscar Cabeza, Carlos Franjo, Eulogio Jiménez
- P1-18 THERMODYNAMIC PROPERTIES OF CETONES (BUTANONE OR HEPTANONE) + CHLOROALKANES MIXTURES**
Wahiba Tafat-Igoudjilene, Ahmed Ait Kaci, Latifa Negadi, Jacques Jose
- P1-19 VAPOR-LIQUID EQUILIBRIA, EXCESS ENTHALPIES AND EXCESS VOLUMES OF DIMETHYL CARBONATE MIXTURES**
Latifa Negadi, Ahmed Ait Kaci, Wahiba Tafat-Igoudjilene, Jacques Jose

SECTION 2 – THERMOCHEMISTRY

- C2-1 CALORIMETRIC STUDY OF ROOM TEMPERATURE ADSORPTION OF N₂O AND CO ON Cu(II)-EXCHANGED ZSM-5 ZEOLITES**
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- C2-2 THERMO-XRD-ANALYSIS STUDY OF THE ADSORPTION OF ALIZARINATE BY Na-, Al-, Co-, Ni-, AND Cu-MONTMORILLONITE**
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- C2-3 THE INVESTIGATION OF THERMODYNAMIC AND THERMOKINETIC OF SOLID STATE INTERCONVERSION OF NITRO/NITRITO ISOMERS OF PENTAAMINECOBALT(III) CHLORIDE BY DIFFERENTIAL SCANNING CALORIMETRY (DSC)**
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- P2-1 EXPERIMENTAL AND COMPUTATIONAL THERMOCHEMISTRY OF 2- AND 3-FURANCARBOXYLIC ACIDS**
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- P2-2 CALORIMETRIC, CRYSTALLINE AND INFRARED STUDIES OF 2- AND 3- FURANCARBOXYLIC ACIDS**
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- P2-3 ENTHALPIES OF COMBUSTION OF THE THREE BROMOTOLUENES BY ROTATING-BOMB CALORIMETRY**
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- P2-4 VAPOUR PRESSURES, ENTHALPIES OF COMBUSTION AND FORMATION OF (METHYLENEDIOXY)BENZENE ALCOHOLS AND ACIDS: AN EXPERIMENTAL AND THEORETICAL APPROACH**
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- P2-5 THE CONSTRUCTION AND TEST OF A NEW KNUDSEN EFFUSION APPARATUS**
 Manuel A.V. Ribeiro da Silva, Manuel J.S. Monte and Luis M.N.B.F. Santos
- P2-6 STANDARD MOLAR ENTHALPIES OF FORMATION, VAPOUR PRESSURES, AND ENTHALPIES OF SUBLIMATION OF 2-CHLORO-4-NITROANILINE AND 2-CHLORO-5-NITROANILINE**
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- P2-7 SOLUTION CALORIMETRIC STUDIES OF NICKEL(II) COMPLEXES WITH N-THENOYL-THIOCARBAMIC-O-ALKYLESTER LIGANDS**
 Manuel A. V. Ribeiro da Silva, Luis M. N. B. F. Santos, Bernd Schröder
- P2-8 PIVALOYLDIALKYLTHIOUREAS GAS PHASE FORMATION ENTHALPIES**
Luis C. Moutinho da Silva, Maria D. M. C. Ribeiro da Silva, Manuel A. V. Ribeiro da Silva
- P2-9 STANDARD MOLAR ENTHALPIES OF FORMATION OF TWO N-(CHLOROALKYL)PHTHALIMIDES**
 Manuel A.V. Ribeiro da Silva and Cláudia P. F. Santos
- P2-10 THE MEAN DISSOCIATION ENTHALPY OF THE (N-O) BONDS IN 2,3-DIMETHYLQUINOXALINE 1,4-DIOXIDE**
 Maria D. M. C. Ribeiro da Silva, Jorge M. Gonçalves, Emanuel A. Sousa, J. R. B. Gomes, W. E. Acree Jr.
- P2-11 ENERGETICS OF METHYLPIPERIDINES**
 Manuel A. V. Ribeiro da Silva, Joana I. T. A. Cabral and José R. B. Gomes
- P2-12 STANDARD MOLAR ENTHALPIES OF FORMATION OF MONOFLUOROANILINES**
 Manuel A. V. Ribeiro da Silva, Ana I. M. C. Lobo Ferreira
- P2-13 VAPOUR PRESSURES OF 4-CHLORO-2-NITROANILINE AND 4-CHLORO-3-NITROANILINE AS FUNCTION OF TEMPERATURE, BY THE KNUDSEN EFFUSION TECHNIQUE**
 Manuel A. V. Ribeiro da Silva, Luis M. N. B. F. Santos, Luís M. S. S. Lima
- P2-14 THERMODYNAMIC STUDY OF THE SUBLIMATION OF SIX 4-n-ALKYLBENZOIC ACIDS**
 Manuel A.V. Ribeiro da Silva, Manuel J. S. Monte and Ana R.R.P. Almeida
- P2-15 MEASUREMENT OF THE ENTHALPIES OF SUBLIMATION OF TWO SCHIFF BASES USING A KNUDSEN EFFUSION TECHNIQUE**
 Maria D. M. C. Ribeiro da Silva, J. M. Gonçalves, Ana L. R. Silva
- P2-16 THERMODYNAMIC STUDY OF THE SUBLIMATION OF XANTHENE AND THIANTHRENE**
 Manuel A. V. Ribeiro da Silva, Manuel J. S. Monte, Luis M. N. B. F. Santos, José M. S. Fonseca, Carlos A. D. Sousa
- P2-17 STANDARD MOLAR ENTHALPIES OF FORMATION IN THE GASEOUS STATE OF 9-METHYLANTHRACENE AND 9,10-DIMETHYL ANTHRACENE**
 Manuel A. V. Ribeiro da Silva, Ana Filipa L. O. M. Santos
- P2-18 CONTRIBUTION TO THE THERMOCHEMICAL STUDY OF NITROBENZOFURAZAN DERIVATIVES**
 Maria D. M. C. Ribeiro da Silva, J. M. Gonçalves, Otilia D. F. Santiago, W. E. Acree, Jr.
- P2-19 THERMODYNAMIC STUDY OF THE SUBLIMATION OF FIVE PHENYL SUBSTITUTED CARBOXYLIC ACIDS**
 Manuel A.V. Ribeiro da Silva, Manuel J.S. Monte and Carlos A.D. Sousa
- P2-20 A KINETIC AND THERMODYNAMIC CALORIMETRIC STUDY OF SALSALATE**
 Susana S. Pinto, Hermínio P. Diogo, Joaquim J. Moura Ramos

- P2-21 ENERGETICS OF THE DIMERIZATION OF ACENAPHTHYLENE**
Rui C. Santos, Hermínio P. Diogo, M. Fátima Minas da Piedade, M. E. Minas da Piedade
- P2-22 ENTHALPIES OF FORMATION OF ALKALI METAL ACETATES**
Ana I. Aleixo, Pedro H. Oliveira, Hermínio P. Diogo, and Manuel E. Minas da Piedade
- P2-23 THERMOCHEMICAL DATA OF N-ALKYLMONOAMINES SURFACE ADSORPTION INTO CRYSTALLINE LAMELLAR ZIRCONIUM PHENYLPHOSPHONATE**
Vanusa S. O. Ruiz, Claudio Airoidi
- P2-24 THERMAL DECOMPOSITION OF COPPER(II) DIAMINE COMPLEXES [Cu(enR)₂]Cl₂ AND [Cu(enR)₂](NO₃)₂ BY TG/DTA**
 Maria Lalia-Kantouri
- P2-25 THE Calvet TG-DSC 111 APPLICATIONS IN HEAT CAPACITIES DETERMINATION OF SOLIDS (I). THE INVESTIGATIONS OF GaN AND Ga₂O₃**
 Rafal Swierzewski, Iwona Tomaszewicz
- P2-26 THERMAL STABILITY AND NON-ISOTHERMAL DECOMPOSITION KINETIC STUDY OF SOME Cu(II) COMPLEXES WITH α -AMINO ACIDS**
Mihaela Badea, Veronica Pop, Rodica Olar, Monica Ilis, Silviu Nastase
- P2-27 THERMAL BEHAVIOUR OF SOME Cu(II) COMPOUNDS SUSCEPTIBLE OF THERAPEUTIC ACTIVITY**
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- P2-28 THERMAL BEHAVIOR OF SOME CHROMIUM COMPLEXES WITH ACRYLATE ION AS LIGAND**
Mihaela Badea, Rodica Olar, Ana Emami, Dana Marinescu, Gina Vasile, Valentina Tigau, Maria Nastac
- P2-29 THERMAL BEHAVIOUR OF SONICATED DISORDERED KAOLINITE**
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- P2-30 COMPARATIVE STUDY OF THE PARTICLE SIZE EFFECT ON THE DEHYDROXYLATION OF 1:1 AND 2:1 ALUMINIUM PHYLLOSILICATES CLAYS**
 Luis A. Pérez-Maqueda, Francisco Franco, José L. Pérez-Rodríguez
- P2-31 PHASE TRANSFORMATION ON HEATING OF AN AGED CEMENT PASTE**
 Ewa T. Stepkowska, Jose-Luis Perez-Rodriguez, Jose-Maria Martinez-Blanes, Francisco Franco
- P2-32 THERMAL BEHAVIOR AND ISOMORPHISM OF LANTHANIDES NITRATES WITH BIS(PENTAMETHYLENE)UREA**
H. K. Silva de Souza, M. K. S. Batista, R. F. Bezerra, J. D. Gomes Fernandes and D. M. Araujo Melo
- P2-33 FT-IR SPECTROSCOPY STUDY OF THE THERMAL TRANSFORMATIONS IN CALCAREOUS OIL SHALES**
Shlomo Shoval, Olga Yofe, Yaacov Nathan
- P2-34 THERMODYNAMICS OF COMPLEX FORMATION OF Ag⁺ WITH 18-CROWN-6 ETHER IN AQUEOUS-ORGANIC MIXED SOLVENTS**
Tatiana R. Usacheva, Sergei F. Ledenkov, Valentin A. Sharnin

SECTION 3 – FOOD, PHARMACEUTICAL AND LIFE SCIENCES

- C3-1 CHARACTERIZATION OF SULFATE REDUCING BACTERIA IN YEAST INDUSTRY WASTE BY MICROCALORIMETRY AND PCR AMPLIFICATION**
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- C3-2 INTERACTIONS BETWEEN TWO HYBRID PEPTIDES OF MELLITIN AND CECROPIN AND DMPC DMPG LIPOSOMES, AS STUDIED BY DSC AND CD**
Filipa Abrunhosa, Sílvia Faria, Paula Gomes, David Andreu, João Costa Pessoa and Margarida Bastos

- C3-3 THERMALLY STIMULATED CURRENT SPECTROSCOPY, AN OTHER TECHNIQUE TO EXPLORE THE STRUCTURAL ORGANIZATION OF MATERIALS**
Christine Mayoux
- C3-4 THERMO-FTIR-SPECTROSCOPY ANALYSIS OF THE SIDEROPHORE FERROXAMINE B AND ITS FERRIC FORM USING CURVE-FITTING TECHNIQUE**
Hagar Siebner-Freibach, Yitzhak Hadar, Shmuel Yariv, Isaak Lapidés, Yona Chen
- P3-1 ENERGY EVALUATION OF FOREST BIOMASS**
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