

# 12<sup>th</sup> International Cyclodextrin Symposium Montpellier, 2004

## PODIUM PRESENTATIONS

### INVITED LECTURES ON MONDAY MORNING, 17 MAY 2004 (9.00 h - 10.10 h)

- I-01 LARGE CYCLODEXTRINS, OVERVIEW AND RECENT DEVELOPMENTS  
Kim Lambertsen Larsen
- I-02 BEYOND THE DOGHNUT ? STRUCTURES OF CYCLOAMYLOSES WITH 10, 14 AND 26 GLUCOSE  
W. Saenger, J. Jacob, T. Takaha, O. Nimz, K. Geßler

### ORAL PRESENTATIONS ON MONDAY MORNING, 17 MAY 2004 (10.30 h - 12.10 h)

- O-01 REACTION CONDITIONS AFFECTING THE YIELD OF LARGE-RING CYCLODEXTRINS SYNTHESIZED BY CYCLODEXTRIN GLUCANOTRANSFERASE FROM *BACILLUS MACERANS*  
Wolfgang Zimmermann, Qingsheng Qi
- O-02 CYCLODEXTRINS BEARING CARBOXYLIC AND/OR AMINO GROUPS: SYNTHESIS AND SELF-ASSEMBLING PROPERTIES  
Tomáš Kraus, Miloš Budešínský, Ivana Císarová, and Jirí Závada
- O-03 NOVEL CYCLODEXTRIN-BASED DONOR-ACCEPTOR SUPERMOLECULES: PHOTOINDUCED ELECTRON AND ENERGY TRANSFERS  
Tia E Keyes, Andrea McNally, Noel R. Russell
- O-04 NOVEL GLYCOSYLATED SUPRACYCLODEXTRINS AS "SMART" AND MULTIVALENT CARRIERS INTERACTING WITH SPECIFIC RECEPTORS  
Antonino Mazzaglia, Antonio Valerio, Raphael Darcy, Domenico Lombardo, Norberto Micali, Luigi Monsù Scolaro, Valentina Villari, Luigi Lay, and Anna Rencurosi
- O-05 PHOSPHINIDENE-CAPPED CYCLODEXTRINS: A NEW GENERATION OF "INTROVERTED" LIGANDS  
Laurent Poorters, Dominique Armspach, Eric Engeldinger, Dominique Matt

### INVITED LECTURES ON MONDAY AFTERNOON, 17 MAY 2004 (14.30 h - 15.40 h)

- I-03 SELF ASSEMBLING CYCLODEXTRIN SYSTEMS – FROM VESICLES TO GENOCOMPLEXES  
Raphael Darcy, Bart Jan Ravoo, Antonino Mazzaglia, Erwan Kan, Caitriona O'Driscoll
- I-04 ROTAXANES AND CYCLODEXTRIN-BASED MOLECULAR MACHINES  
Akira Harada

### ORAL PRESENTATIONS ON MONDAY AFTERNOON, 17 MAY 2004 (16.00 h - 17.40 h)

- O-06 NOVEL AMPHIPHILIC CYCLODEXTRINS BUILT ON A CHIRAL TEMPLATE : RELATIONS BETWEEN MOLECULAR STRUCTURES, PHYSICO-CHEMICAL AND BIOLOGICAL PROPERTIES  
Stéphane Moutard, Bruno Perly, Florence Djedaïni-Pilard
- O-07 COPOLYMERS BASES ON POLYROTAXANES SYNTHESIS BY RADICALAR WAY  
Nathalie Jarroux, Philippe Guégan, Hervé Cheradame, Loïc Auvray
- O-08 SOMERSAULT OF GLUCOPYRANOSE UNITS IN PERMETHYLATED  $\beta$ -CYCLODEXTRIN MOIETIES ATTACHED TO A PORPHYRIN SUBSTRUCTURE  
Ryuhei Nishiyabu, Koji Kano
- O-09 CYCLODEXTRIN POLYMERS FOR POLYANION COMPLEXATION  
Catherine Amiel, Céline Galant, Véronique Wintgens, Loïc Auvray
- O-10 SYNTHESIS OF REGIOSELECTIVELY 3<sup>1</sup>-O-ALKYLATED  $\beta$ -CYCLODEXTRIN DERIVATIVES USING WITTIG REACTION  
Michal Kusák, Jindrich Jindrich, Iva Tišlerová

### INVITED LECTURES ON TUESDAY MORNING, 18 MAY 2004 (9.00 h - 10.10h)

- I-05 MOLECULAR-IMPRINTING OF CYCLODEXTRINS  
Makoto Komiyama, Hiroyuki Asanuma, Takayuki Hishiya, and Tomohiro Akiyama
- I-06 DESIGN AND SYNTHESIS OF CYCLODEXTRIN DERIVATIVES FOR CHIRAL SEPARATION  
L. Jicsinszky, R. Iványi

**ORAL PRESENTATIONS ON TUESDAY MORNING, 18 MAY 2004** (10.30h - 12.10h)

- O-11 INCLUSION COMPLEX OF  $\beta$ -CYCLODEXTRIN WITH A GLYCOCONJUGATE: CRYSTAL ARCHITECTURE AND CONFORMATIONAL PROPERTIES  
Andrea Mele, Luciana Malpezzi, Claudio Fuganti, Giovanni Fronza, Sergio Brückner
- O-12 ISOTOPE EFFECTS ON COMPLEXATION THERMODYNAMICS OF NATIVE AND MODIFIED CYCLODEXTRINS  
Yoshihisa Inoue, Mikhail V. Rekharsky
- O-13 NMR INVESTIGATIONS OF INCLUSION COMPLEXES BETWEEN SPIN TRAPS AND  $\beta$ -CYCLODEXTRIN  
David Bardelang, Jean-Louis Clément, Jean-Pierre Finet, Hakim Karoui, Paul Tordo
- O-14 NEW PHASE-DISTRIBUTION METHOD TO INVESTIGATE CYCLODEXTRIN COMPLEXATION  
Már Másson, Birna V. Sigurðardóttir, Kristján Matthíasson, Thorsteinn Loftsson
- O-15 TRENDS IN THE COMPLEXATION OF ORGANIC MOLECULES BEARING TWO PERIPHERAL BENZENE RINGS WITH AQUEOUS  $\beta$ -CYCLODEXTRIN  
Musa I. El-Barghouthi, Khaldoun A. Al-Sou'od, Mohammad B. Zughul and Adnan A. Badwan

**INVITED LECTURES ON TUESDAY AFTERNOON, 18 MAY 2004** (14.30 h -15.40 h)

- I-07 CYCLODEXTRINS AS PROMOTERS OF CAPTURE AND PROLONGED RELEASE OF ACTIVE SUBSTANCES IN TEXTILE TECHNICAL AND BIOMATERIAL APPLICATIONS  
B. Martel, N. Blanchemain, F. Boschin, D. Ruffin, S. Haulon, H.F. Hildebrand, M. Morcellet, G. Vermeersch, N. Azaroual, Y. Bakkour
- I-08 ROLE OF CYCLODEXTRIN IN OPHTHALMIC FORMULATIONS  
Ashim K. Mitra

**ORAL PRESENTATIONS ON TUESDAY AFTERNOON, 18 MAY 2004** (16.00 h - 17.40 h)

- O-16 DIRECT MASS SPECTROMETRY AND LC-MS: POWERFUL ANALYTICAL TOOLS IN THE RAPID CHARACTERIZATION OF MODIFIED CYCLODEXTRINS  
Claire Elfakir, Patrick Chaimbault, Patrick Favetta, Michel Lafosse
- O-17 DEVELOPMENT OF A UNIVERSAL METHOD FOR THE DETERMINATION OF ENANTIOMERIC COMPOSITIONS OF PHARMACEUTICAL PRODUCTS  
Chieu D. Tran, Victor I. Grishko and Daniel Oliveira
- O-18 ENANTIOSEPARATION OF BASIC PHARMACEUTICALS IN NON-AQUEOUS CAPILLARY ELECTROPHORESIS USING ANIONIC CYCLODEXTRINS AS CHIRAL SELECTORS  
Jacques Crommen, Anne-Catherine Servais, Marianne Fillet, Philippe Hubert
- O-19 THE USE OF CYCLODEXTRINS IN GAS CHROMATOGRAPHY – SCOPE AND LIMITATIONS  
Wilfried A. König, Melanie Junge
- O-20 COMPLEXATION AND CHIRAL DISCRIMINATION OF ALA-PHE, ITS DERIVATIVES AND RELATED COMPOUNDS BY NATIVE AND MODIFIED CYCLODEXTRINS  
Mikhail V. Rekharsky, Hatsuo Yamamura, Sayaka Demura, Yoko Ishihara, Masao Kawai, Yoshihisa Inoue

**INVITED LECTURES ON WEDNESDAY MORNING, 19 MAY 2004** (9.00 h - 10.10h)

- I-09 PHASE-SOLUBILITY DIAGRAMS AND STOICHIOMETRY OF DRUG/CYCLODEXTRIN COMPLEXES  
Thorsteinn Loftsson and Már Másson
- I-10 ENHANCING MECHANISM OF ORAL BIOAVAILABILITY BY CYCLODEXTRINS  
Hidetoshi Arima, Fumitoshi Hirayama, Kaneto Uekama

**ORAL PRESENTATIONS ON WEDNESDAY MORNING, 19 MAY 2004** (10.30h - 12.10h)

- O-21 PHARMACEUTICAL APPLICATION OF EXPERIMENTAL DESIGN : AN APPLICATION TO KNEADING PROCESS BETWEEN DRUG SUBSTANCE AND  $\gamma$ -CYCLODEXTRIN  
Séverine Hutin
- O-22 CYCLODEXTRINS AS MODULATORS OF DRUG RELEASE IN POLYMERIC DELIVERY SYSTEMS  
F. Quaglia, G. De Rosa, F. Ungaro, A. Miro, B. Cappello, M.I. La Rotonda
- O-23 CYCLODEXTRINS AND CELL-PENETRATING PEPTIDES: SYNERGISTIC ENHANCEMENT OF DRUG UPTAKE IN AN EPITHELIAL MODEL  
Christina Foerg, Jimena Fernandez-Carneado, Ernest Giralt, Hans P. Merkle
- O-24 Evaluation of the pulmonary inflammation and bronchial hyperresponsiveness in healthy mice induced by inhaled cyclodextrins  
M. Gueders, P. Bertholet, V. Barillaro, G. Piel, S. Henry de Hassonville, L. Delattre, D. Cataldo, B. Evrard

- O-25 BEHAVIOR OF VARIOUS CYCLODEXTRINS ON AN *IN VITRO* MODEL OF BLOOD BRAIN BARRIER: APPLICATION TO THE VECTORISATION OF DOXORUBICIN TOWARDS THE BRAIN  
V. Monnaert, S. Tilloy, H. Bricout, L. Fenart, R. Cecchelli, E. Monflier

**INVITED LECTURES ON WEDNESDAY AFTERNOON, 19 MAY 2004** (14.30 h -15.40 h)

- I-11 INTERACTIONS OF CYCLODEXTRINS WITH PHOSPHOLIPID-BASED ASSEMBLIES  
Sylviane Lesieur
- I-12 THE DELIVERY OF NUCLEIC ACIDS VIA THE USE OF CYCLODEXTRIN-CONTAINING MATERIALS  
Mark E. Davis

**ORAL PRESENTATIONS ON WEDNESDAY AFTERNOON, 19 MAY 2004** (16.00 h - 17.40 h)

- O-26 MODIFIED CYCLODEXTRIN IONIC CHANNELS IN LIPID MEMBRANES  
Laurent Bacri, Loïc Auvray, Abdelghani Oukhaled, Aude Plaszyński, Philippe Guéguan, Amal Ben Khaled
- O-27 INSERTION AND AGGREGATION OF CYCLODEXTRIN AT THE MEMBRANE INTERFACE  
Michel Roux, Rachel Auzély - Velly, Florence Djedaini-Pilard, Stéphane Moutard, Bruno Perly
- O-28 TOWARD THE MECHANISM OF DESTABILISATION OF LIPID MEMBRANES BY METHYLATED  $\beta$ -CYCLODEXTRINS  
Boulmedarat Laïla, Bochet Amélie, Lesieur Sylviane, Fattal Elias
- O-29 PRELIMINARY STUDY ON PREPARATION OF SPECIFIC MEMBRANES FOR CHOLESTEROL REMOVAL FROM MILK  
Amalia Gordano, Francesco Trotta, Enrico Drioli
- O-30 WHY IS SO SLOW THE INCREASE IN NUMBER OF MARKETED DRUG/CD FORMULATIONS?  
József Szejtli

**POSTER SESSIONS**

**POSTERS ON MONDAY 17 MAY 2004** (12.15h - 14.30h)

**Cyclodextrins and derivatives**

- P-001 CYCLODEXTRIN GLUCANOTRANSFERASE FROM ALKALOPHILIC *BACILLUS CIRCULANS* B-65  
Dragan Pestic, Draga Simic, Slavisa Stankovic
- P-002 CLONING AND NUCLEOTIDE SEQUENCE OF CYCLODEXTRIN GLYCOSYLTRANSFERASE GENE FROM THERMOTOLERANT *PAENIBACILLUS* BACTERIA SCREENED FROM HOT SPRING AREAS OF THAILAND  
Ratiya Charoensakdi, Vichien Rimphanitchayakit, Piamsook Pongsawasdi and Tipaporn Limpaseni
- P-003 THERMOSTABLE CGTASE FROM *PAENIBACILLUS* SP. RB01 AND ITS CHEMICAL MODIFICATION WITH GLUCOMANNAN  
Wanchai Yenpetch, Jaranee Kuanphibun, Masaru Iizuka, and Piamsook Pongsawasdi
- P-004 CONSTRUCTION OF A FUSED POLYCYCLIC WALL WITHIN THE CYCLODEXTRIN BELT TO ENSURE A DISTORTED CAVITY: AN UNUSUAL TRANS-DIEQUATORIAL OPENING REACTION OF CYCLODEXTRIN EPOXIDE RINGS  
Makoto Fukudome, Kahee Fujita, Toshihiro Fujioka, Hideaki Shimada, Kazuko Ohta, Akitoshi Yoshino, Yuji Okabe, and De-Qi Yuan
- P-005 EFFECTIVE A,B-DISUBSTITUTION OF CYCLODEXTRINS USING A TRITYL-BASED CAPPING REAGENT  
Belkacem Benmerad, Laurent Poorters, Dominique Armspach, Dominique Matt
- P-006 MECHANISM OF 2-O TO 3-O Silyl MIGRATION IN CYCLODEXTRINS  
Katsunori Teranishi, Fumiko Ueno
- P-007 STUDY OF STRUCTURE PROPERTY RELATIONSHIPS IN CYCLODEXTRIN DERIVATIVES  
Mary McNamara, Ciaran Potter, Noel Russell
- P-008 SOME COMMENTS ON THE SYNTHESIS OF [(2-HYDROXY-3-N,N,N-TRIMETHYLAMINO)PROPYL] CYCLODEXTRINS  
Á. Szeredi, L. Jicsinszky, R. Iványi, G. Kis, C. Schoch
- P-009 MODIFICATION OF  $\beta$ -CYCLODEXTRIN BY HETERO-CYCLIC COMPOUNDS: INCORPORATION OF ISOINDOLO- [2,1-a]QUINAZOLINE  
Zoia Voitenko, Sergiy Ryabov, Sergiy Rudyuk, Alexander Roshal
- P-010 PREPARATION AND ANALYSIS OF  $\beta$ -CYCLODEXTRIN CONJUGATES  
Dillip K. Mohanty, Ajit Sharma, Christopher McDermid, Ankur Desai
- P-011 NEW BITTERNESS-MASKING CYCLODEXTRIN DERIVATIVES  
G. Cravotto, F. Trotta, L. Costa, G.M. Nano, A. Binello
- P-012 SYNTHESIS AND CHARACTERIZATION OF NEW SULFOALKYL-ALKYL ETHER CYCLODEXTRIN DERIVATIVES

Serena Tongiani, David Vander Velde, Valentino J. Stella

- P-013 FLUORESCENT MOLECULAR SENSORY SYSTEM BASED ON BIS PYRENE-MODIFIED  $\beta$ - AND  $\gamma$ -CYCLODEXTRIN DIMERS FOR ENDOCRINE DISRUPTORS AND BIOPOLYMERS  
Fumio Hamada, Masaya Toda, Nobuaki Ogawa, and Hideaki Ito
- P-014 PREPARATION AND CHARACTERIZATION OF 6<sup>1</sup>,6<sup>2</sup>, 6<sup>1</sup>,6<sup>3</sup> AND 6<sup>1</sup>,6<sup>4</sup>-Di-O-( $\alpha$ -L-FUCOPYRANOSYL)- $\beta$ -CYCLODEXTRINS AND STUDY OF THEIR FUNCTIONS  
Toshiko Tanimoto, Yuki Nishi, Akiko Ikuta, and Chie Honda
- P-015 SYNTHESIS AND STRUCTURE DETERMINATION OF NEW CYCLODEXTRIN-AZACROWN CHIRAL RECEPTORS  
Stephane Menuel Jean Pierre Joly and Alain Marsura
- P-016 SYNTHESIS OF NEW CYANO GUANIDINE  $\beta$ -CYCLODEXTRIN DERIVATIVES  
Carine Bertolla, Lionel Pochet, Bernard Masereel
- P-017 HIGH MANNOSYL MIMETIC DERIVATIVES BASED ON  $\beta$ -CYCLODEXTRIN CORE  
Nicolas Smiljanic, Duplex Yockot, Vincent Moreau, Florence Djedaïni-Pilard
- P-018 DUAL RECOGNITION OF THE SIALIC ACID-BRANCHED CYCLODEXTRINS WITH WGA LECTIN AND DRUG  
Kenjiro Hattori, Noriyuki Yamaguchi, Hide-ki Ishida, Toshiyuki Inazu
- P-019 MONO- AND POLYFUNCTIONALISED CYCLODEXTRINS BEARING PARAMAGNETIC METAL COMPLEXES  
S. Aime, A. Barge, L. Costa, G. Cravotto, E. Gianoli
- P-020 USING HPLC/ESI-MS FOR SEPARATION AND DETECTION OF LARGE-RING CYCLODEXTRINS  
Anja Bogdanski, Daniel Bischoff, Kim Lambertsen Larsen, Günther Jung, Roderich Stüssmuth and Volker Schurig
- P-021 HPLC METHODS FOR ANALYSIS OF TOSYLATED CYCLODEXTRIN DERIVATIVES  
Krisztina Kékési, Julianna Szemán, Katalin Csabai, L. Jicsinszky, Alexandra Hidasi
- P-022 OBTENTION OF RADIOLABELLED AMPHIPHILIC  $\beta$ -CYCLODEXTRIN FOR NANOPARTICLE BIODISTRIBUTION STUDIES  
Tieu Lan Chau, Annabelle Gèze, Luc Choisnard, Barbara Szymonski, Amar Boutata, , Jean-Paul Mathieu, Denis Wouessidjewe
- P-023 BLACK FOAM FILMS MADE OF AMPHIPHILIC CYCLODEXTRINS: STRUCTURE AND HYDRATION  
C.Sultanem, S.Moutard, J.J.Benattar, F.Djedaïni-Pilard, and B.Perly
- P-024 AMPHIPHILIC CD'S FROM NATURAL AMINO ACID: ONE STEP BEYOND TOWARDS PC AND LYSO-PC ANALOGS  
Christophe Fajolles, Delphine Ferrand, Delphine Oumeddour, Alexandre Luneau, Bruno Perly, Laurent Mauclair
- P-025 AMPHIPHILIC AMMONIUM- $\beta$ -CYCLODEXTRINS: NEW SUPRAMOLECULAR CARRIERS FOR MULTIPLE APPLICATIONS  
Cécile Binkowski, Frédéric Hapiot, Patrick Martin, Eric Monflier
- P-026 SYNTHESIS OF NEW VECTOR FROM THIO-PERFLUORO-ALKYLATED CYCLODEXTRINS  
Sandrine Péroche, Hélène Parrot-Lopez, Ghania Degobert and Hatem Fessi
- P-027 ENZYME CATALYZED SYNTHESIS OF (2-O-ALKANOYL)-CYCLODEXTRINS  
Kim Lambertsen Larsen, Ninfa Rangel Pedersen, Janni Brogaard Kristensen, Guy Bauw, Raphael Darcy, Bart -Jan Ravoo, Lars Haastrup Pedersen
- P-028 SYNTHESIS OF THE INSOLUBLE CHITOSAN BEARING CYCLODEXTRIN AND ADSORPTION BEHAVIOR FOR VARIOUS PHENOLS  
Nobuyoshi Aoki, Ryo Arai and Kenjiro Hattori
- P-029 CONTROL OF DEGREE OF POLYMERIZATION POLYMERIZATION WITH CYCLODEXTRIN-MULTI VINYL MONOMER  
Reiko Saito, Chihiro Saegusa, Kazutaka Yamaguchi
- P-030 SYNTHESIS OF POLYSACCHARIDE DERIVATIVES WITH A BLOCK-LIKE STRUCTURE BY CATIONIC RING OPENING POLYMERISATION OF CYCLODEXTRINS  
Roland Adden, Andreas Bösch, Petra Mischnick
- P-031 ASSOCIATIVE SYSTEMS OF POLYMERS OF  $\beta$ -CYCLODEXTRIN-CO-EPICHLORHYDRIN AND MODIFIED DEXTRAN  
Noëlle Martine Gosselet, Noura Sabiri, Catherine Amiel
- P-032 NMR STUDY OF A CYCLODEXTRIN POLYMER AND ITS INCLUSION COMPLEX WITH JASMONE  
Youssef Bakkour, Gaston Vermeersch, Michel Morcellet, Bernard Martel and Nathalie Azaroual
- P-033 NANO-STRUCTURING POLYMER MATERIALS WITH CYCLODEXTRIN INCLUSION COMPOUNDS  
Cristian C. Rusa, Tamer Uyar, Marcus Hunt, Justin Fox, Robert Moorefield, Mariana Rusa, and Alan E. Tonelli
- P-034 NEW APPLICATIONS OF POLYMER – CYCLODEXTRIN INCLUSION COMPOUNDS

Cristian C. Rusa, Marian Gomez, Mariana Rusa, and Alan E. Tonelli

- P-035 A COMPUTATIONAL STUDY OF THE MOLECULAR RECOGNITION OF NARINGIN IN  $\beta$ -CYCLODEXTRIN POLYMERIC MEMBRANE  
Elena Tocci, Maria Pia Perrone, Enrico Drioli
- P-036 MOLECULAR DYNAMICS SIMULATIONS OF POLY(DIMETHYL SILOXANE) INSIDE  $\alpha$ -,  $\beta$ - AND  $\gamma$ -CYCLODEXTRIN CHANNELS  
Javier Pozuelo and Francisco Mendicuti
- P-037 POLYROTAXANE FORMATION INDUCED BY ULTRASOUNDS BETWEEN NATURAL CYCLODEXTRINS AND PERFLUORINATED POLYETHERS  
Gustavo González-Gaitano, José Ramón Isasi, Diego Maza, Irene Heras, Itziar Vélaz
- P-038 DESIGN AND ADVANCED CHARACTERIZATION OF POLYROTAXANES WITH CONTROLLABLE AMOUNTS OF  $\alpha$ -CYCLODEXTRIN  
Sophie Tingry, Els Eeckhout, Filip Duprez, André Deratani
- P-039 CRYSTAL STRUCTURE OF THE COMPLEX OF  $\beta$ -CYCLODEXTRIN WITH BITHIOPHENE AND THEIR OXIDATIVE POLYMERIZATION IN WATER  
Yoshinori Takashima, Yoshihumi Oizumi, Kazuya Sakamoto, Masahiko Miyauchi, Toshikazu Hirao and Akira Harada
- P-040 SUPRAMOLECULAR POLYMERS FORMED BY CD CINNAMATE DERIVATIVES  
Masahiko Miyauchi, Taiki Hoshino and Akira Harada
- P-041 SELF-ASSEMBLING CYCLODEXTRIN BASED HYDROGELS  
S. Daoud-Mahamme, P. Couvreur, J. L. Grossiord, C. Amiel, R. Gref
- P-042 ASSOCIATION OF HYDROPHOBICALLY MODIFIED POLY(*N*-ISOPROPYLACRYLAMIDE) WITH POLY- $\beta$ -CYCLODEXTRIN IN WATER  
Véronique Wintgens and Catherine Amiel
- P-043 DIRECTED ORIENTATION OF A GUEST (METHYL ORANGE) IN PSEUDO-ROTAXANES OF  $\beta$ -CYCLODEXTRIN AND MULTI-CHARGED ANALOGUES IN SOLUTION  
Nikolaos Mourtzis, Konstantina Yannakopoulou, Irene M. Mavridis
- P-044 SYNTHESIS ELECTROCHEMISTRY AND PHOTO-CHEMISTRY OF GUEST  $C_{60}$  IN MODIFIED CYCLODEXTRIN SELF-ASSEMBLED MONOLAYERS  
Andrea McNally, Dr. T.E. Keyes, Dr. N.R. Russell
- P-045 REDOX CHARACTERIZATION OF WATER-SOLUBLE CONJUGATES CYCLODEXTRIN-FULLERENE  
Lubomír Pospíšil, Magdaléna Hromadová, Salvatore Filippone, André Rassat

#### Inclusions

- P-046 INCLUSION COMPLEXATION OF 4-METHOXYINDOLE WITH  $\beta$ -CYCLODEXTRIN  
Carmen Gazpio, Arantza Zornoza, Gustavo González-Gaitano, José Ramón Isasi, Cristina Martínez-Ohárriz and Itziar Vélaz
- P-047 INCLUSION COMPLEXATION OF GEMFIBROZIL WITH  $\beta$ -CYCLODEXTRIN IN SOLUTION AND IN THE SOLID STATE  
Laura Fernández, Carmen Martín, Cristina Martínez-Ohárriz, Arantza Zornoza, Itziar Vélaz, Gustavo González-Gaitano, Miguel Sánchez
- P-048 PREPARATION AND INVESTIGATION OF INCLUSION COMPLEXES CONTAINING LIDOCAINE BASE AND  $\beta$ -CYCLODEXTRIN  
Anita Tatai, Zoltán Aigner, István Eros and Michael Kata
- P-049 ASPECTS OF AMINO ACIDS RECOGNITION BY CYCLODEXTRINS  
Elena Diacu, Lucia Mutihac and Anca Barbu
- P-050 COMPLEXATION OF APPLE ANTIOXIDANTS BY  $\beta$ -CYCLODEXTRIN  
Emilio Alvarez-Parrilla, Laura A. de la Rosa, Francisco Torres-Rivas, Joaquín Rodrigo, Gustavo González-Aguilar
- P-051 STUDIES ON THE ALBENDAZOL/BETA-CYCLODEXTRIN INCLUSION COMPLEX  
Cristiane N. Ferracini, Flavio F. de Moraes, Gisella M. Zanin, Ana A. W. Hechenleitner, and Graciette Matioli
- P-052 PREPARATION AND CHARACTERIZATION OF SULFLURAMID- $\beta$ -CYCLODEXTRIN INCLUSION COMPLEX  
Rita de C. Bergamasco, Gisella M. Zanin, and Flavio F. de Moraes
- P-053 SOLUBILIZATION OF A NUCLEOTIDE ANALOGUE PRODRUG BY HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN  
Lars P. Jordheim, Ghania Degobert, Hatem Fessi, Pierre Simon, Suzanne Peyrottes, Christian Périgaud, Charles Dumontet
- P-054 IMPROVEMENT OF PHYSICAL PROPERTIES OF GEMFIBROZIL BY CYCLODEXTRIN COMPLEXATION  
Hassan Bin Hassan, Zoltán Aigner, Michael Kata, István Eros

- P-055 INTERACTION OF TRIS-FERROCENYLSILANE WITH  $\beta$ -CYCLODEXTRIN  
José A. Fernandes, Sérgio Lima, Susana S. Braga, José E. Rodríguez-Borges, Martyn Pillinger, Paulo Ribeiro-Claro, José J. C. Teixeira-Dias, Isabel S. Gonçalves
- P-056 STUDY OF INCLUSION COMPLEXATION OF NEEM OIL WITH  $\beta$ -CYCLODEXTRIN  
M.R. Sawant, Rahul V. Mekade
- P-057 STUDY OF INCLUSION COMPLEX OF INSECTICIDE (PERMETHRIN) WITH  $\beta$ -CYCLODEXTRIN  
M.R. Sawant, Rakesh K. Nair
- P-058 THE INTERACTION OF THIOACRIDINE DERIVATIVES WITH CYCLODEXTRINS  
Irena Nemcova, Bozena Kafkova, Eva Caisová, Karel Nesmerak
- P-059 PHYSICO-CHEMICAL CHARACTERIZATION AND DISSOLUTION OF DIFFERENT CYCLODEXTRIN COMPLEXES OF FLUTAMIDE  
María Garrido, Manuela Merino, M<sup>a</sup> Dolores Veiga
- P-060 COMPLEXATION OF DICLOFENAC WITH METHYL- $\beta$ -CYCLODEXTRIN AND HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN  
Pavlos G. Klepetsanis
- P-061 INCREASE IN THE SOLUBILITY OF CAMPTOTHECIN IN CYCLODEXTRIN SOLUTIONS BY NATURAL ADDITIVES AND WATER SOLUBLE POLYMERS  
Thorsteinn Thorsteinnsson, Matt Duan, Robert O'Fee, David Zembower
- P-062 SOLUBILITY IMPROVEMENTS OF TRICHLLOCARBAN IN CYCLODEXTRIN SOLUTIONS WITH NATURAL ADDITIVES AND WATER SOLUBLE POLYMERS  
Thorsteinn Thorsteinnsson, Matt Duan, Ina B. Ossurardóttir, Robert O'Fee, Mar Masson, Thorsteinn Loftsson
- P-063 PREPARATION OF TRICLOSAN/CYCLODEXTRIN COMPLEXES AND THEIR AGGREGATE FORMATION  
T. Loftsson, Í. B. Össurardóttir, M. Duan, M. Másson, N. Zhao
- P-064 CYCLODEXTRIN SOLUBILIZATION OF DRUGS ENHANCED WITH ORGANIC ANIONS AND CATIONS  
Már Másson, Thorsteinn Loftsson, Kristján Matthíasson
- P-065 REDUCED FORMULATION BULK OF CYCLODEXTRIN COMPLEXES THROUGH ADDITION AND SUBSEQUENT REMOVAL OF VOLATILE ACIDS OR BASES  
Már Másson, Thorsteinn Loftsson, Hákon Hrafn Sigurdsson, Nicolaas Schipper
- P-066 INFLUENCE OF METHYLATION ON THE INCLUSION ABILITY OF  $\beta$ -CYCLODEXTRIN DIMERS WITH SHORT TETHERS  
Virginie Baudel, David Landy, Gheorghe Surpateanu
- P-067 INCLUSION COMPLEXATION BETWEEN THE *MENTHA X VILLOSA* HUDSON OIL AND  $\beta$ -CYCLODEXTRIN  
Moura, Túlio Flávio
- P-068 PHYSICO-CHEMICAL STUDY OF CYCLODEXTRINS MICROENCAPSULATION IN DERMAL PREPARATIONS  
Nathir Al-Rawashdeh, Mohammad Bassam Al-Bitar, Khaled Al-Sadeh
- P-069 PHYSICO-CHEMICAL AND PHARMACOLOGICAL INVESTIGATIONS ON VALDECOXIB-CYCLODEXTRIN INTERACTIONS  
Rajendrakumar Kale, Pralhad Tayade
- P-070 EFFECT OF WATER SOLUBLE POLYMERS IN THE SOLUBILIZATION OF AN ANTI-ANGIOGENIC DRUG USING CYCLODEXTRINS  
Rajendrakumar Kale, Pralhad Tayade
- P-071 INCLUSION COMPLEXATION OF THALIDOMIDE WITH CAPTISOL® IN SOLUTION AND IN THE SOLID STATE  
Rajendrakumar Kale, Pralhad Tayade
- P-072 STUDIES ON SOLUBILISATION AND IMPROVED ANTICANCER ACTIVITY OF BIOFLAVANOID USING CYCLODEXTRIN  
Rajendrakumar Kale, Pralhad Tayade
- P-073 CHANGES OF OPTICAL PROPERTIES OF MANNICH BASES BY CYCLODEXTRIN INCLUSION  
Helmut Viernstein, Gottfried Köhler, Peter Wolschann
- P-074 STUDY OF THE FORMATION OF CHOLIC ACID/CYCLODEXTRIN INCLUSION COMPLEXES  
Manuela Merino, José R. Moyano, Juan M. Ginés, M<sup>a</sup> Dolores Veiga
- P-075 CHARACTERIZATION AND PROPERTIES OF THE INCLUSION COMPLEX OF DEHYDROCROTONIN WITH  $\beta$ -CYCLODEXTRIN  
Mariangela B. M. De Azevedo, Carlos A.A De Carvalho, Nelson Durán, Patrícia Melo and Marcela Haun

- P-076 INTERACTIONS BETWEEN NAFTIFINE AND DIFFERENT CYCLODEXTRINS IN SOLUTION: A SOLUBILITY STUDY  
Maite Uzqueda, Itziar Vélaz, Arantza Zornoza, Gustavo González-Gaitano, Carmen Martín, Cristina Martínez-Ohárriz, Miguel Sánchez
- P-077 FORMESTANE : CYCLODEXTRINS COMPLEX FORMATION FOR CELLULITE TREATMENT  
S. Guerra Filho, H. Cabral Marques
- P-078 PREPARATION OF INCLUSION COMPLEXES OF NAPROXEN-(TRACETYL- $\beta$ -CYCLODEXTRINS) IN SUPERCRITICAL CARBON DIOXIDE  
Susana Junco, Teresa Casimiro, Helena Cabral Marques
- P-079 EFFECT OF ALKYL CARBONATES OF  $\gamma$  CYCLODEXTRIN WITH DIFFERENT CHAIN LENGTHS ON THE SOLUBILITY AND DISSOLUTION RATE OF DRUGS  
R. Cavalli, F. Trotta, M. Trotta and G. Cravotto
- P-080 INFLUENCE OF SBE- $\gamma$ -CD ETHYLATION ON 9-NO<sub>2</sub>-PAULLONE SOLUBILIZATION  
Svitlana Silchenko, Serena Tongiani and Valentino J. Stella
- P-081 DRUG/ $\beta$ -CYCLODEXTRIN COMPLEXES INVOLVING AMBROXOL, DIFLUNISAL, GLIMEPERIDE, SERTRALINE AND TICLOPIDINE  
Fakhri O. Yousef, Mohammad B. Zughul and Adnan A. Badwan
- P-082 COMPLEXATION EQUILIBRIA OF MELOXICAM, PIROXICAM AND TENOXICAM WITH  $\alpha$ -,  $\beta$ -, HP- $\beta$ - AND ?-CYCLODEXTRIN IN AQUEOUS SOLUTIONS  
Ahmad A. Abdoh, Mohammad B. Zughul and Adnan A. Badwan
- P-083 RELIABILITY OF PHASE SOLUBILITY DIAGRAMS IN PREDICTING STOICHIOMETRY OF DRUG/CYCLODEXTRIN COMPLEXES  
Mohammad B. Zughul and Adnan A. Badwan
- P-084 KETOTIFEN AND PIZOTIFEN/ $\beta$ -CYCLODEXTRIN COMPLEXES AND THE HYDROPHOBIC CONTRIBUTION TO COMPLEX STABILITY  
Mahmoud. M. Al Omari, Mohammad B. Zughul, J. Eric D. Davies, Adnan A. Badwan
- P-085 EFFECT OF VARIOUS SOLUTION PARAMETERS ON THE COMPLEXATION OF TERFENADINE WITH  $\beta$ -CYCLODEXTRIN IN AQUEOUS SOLUTIONS  
Mahmoud. M. Al Omari, Mohammad B. Zughul, J. Eric D. Davies, Adnan A. Badwan
- P-086 CONCOMITANT SOLUBILITY ENHANCEMENT OF TERFENADINE AND  $\beta$ -CD IN AQUEOUS ORGANIC AND INORGANIC ACID SOLUTIONS  
Mahmoud. M. Al Omari, Mohammad B. Zughul, J. Eric D. Davies, Adnan A. Badwan
- P-087 FACTORS CONTRIBUTING TO SOLUBILITY SYNERGISM OF BASIC DRUGS AND  $\beta$ -CYCLODEXTRIN TERNARY MOLECULAR COMPLEXES  
Mahmoud. M. Al Omari, Mohammad B. Zughul, J. Eric D. Davies, Adnan A. Badwan

**POSTERS ON TUESDAY 18 MAY 2004** (12.15h - 14.30h)

**Characterization of inclusions**

- P-088 PHOTOPHYSICAL PROPERTIES OF CYCLODEXTRINS-GLUCOCONJUGATED PORPHYRINS ASSOCIATIONS  
A. Bautista-Sanchez, A. Kasselouri, M-C. Desroches, J. Blais, P. Maillard, P. Prognon and J. Delaire
- P-089 A CIRCULAR DICHROISM AND STRUCTURAL STUDY OF THE INCLUSION COMPLEX ARTEMISININ- $\beta$ -CYCLODEXTRIN  
Giancarlo Marconi, Sandra Monti, Francesco Manoli, Alessandra Degli Esposti, Bernd Mayer
- P-090 THERMAL CHARACTERIZATION OF BINARY SYSTEMS OF SOME ANTIFUNGAL AGENTS AND CYCLODEXTRINS IN THE SOLID STATE  
Filiz Taneri, Tamer Güneri, Zoltán Aigner, Ottó Berkesi, Mihály Kata
- P-091 CYCLODEXTRIN INCLUSION COMPOUNDS OF POLYPHENOLICS: A MOLECULAR SPECTROSCOPIC STUDY  
Margarida Lopes, M. Madalena Caldeira, Aida Moreira da Silva, José Teixeira-Dias
- P-092 INCLUSION COMPLEXATION BETWEEN AMPHIPHILIC DRUGS AND SOLUBLE CYCLODEXTRINS QUANTIFIED BY INTERFACIALLY SENSITIVE METHODS  
Angelina Angelova, C. Ringard-Lefebvre; Adam Baszkin
- P-093 COMPLEXATION OF N-IMIDAZOLE DERIVATIVES, AROMATASE INHIBITORS, WITH NEUTRAL CYCLODEXTRINS. DETERMINATION OF INCLUSION CONSTANTS AND MECHANISTIC STUDY BY CAPILLARY ELECTROPHORESIS AND <sup>1</sup>H NMR  
Cécile Danel, Nathalie Azaroual, Catherine Foulon, Marie-Pierre Vaccher, Jean-Paul Bonte, Claude Vaccher, Jean-François Goossens

- P-094 CONTRIBUTION OF CAPILLARY ZONE ELECTROPHORESIS TO THE DETERMINATION OF COMPLEXATION CONSTANTS OF PER-3,6-ANHYDRO-CYCLODEXTRINS WITH IONS  
Patricia Lixon, Cécile Baudin, Laurent Mauclaire
- P-095 IONIC COMPLEXATION PROPERTIES OF 3-6-PER-ANHYDRO-CYCLODEXTRINS AND DERIVATIVES TOWARDS LANTHANIDES  
Cécile Baudin, Christophe Jankowski, Gaétan Leclair, Fabienne Tardy, Badia Amekraz, Christophe Fajolles, Bruno Perly, Laurent Mauclaire
- P-096 A MOLECULAR MODELLING STUDY OF THE INCLUSION ABILITY OF 6,6'-MONOTHIOUREIDO-BIS- $\beta$ -CYCLODEXTRIN  
David Landy, Virginie Baudel, Gheorghe Surpateanu
- P-097 THERMODYNAMICS OF CYCLODEXTRIN-SURFACTANT INTERACTIONS. VOLUME, ENTHALPY AND HEAT CAPACITY STUDIES  
R. De Lisi, G. Lazzara, S. Milioto, N. Muratore, I.V. Terekhova
- P-098 THERMODYNAMICS STUDY OF INCLUSION COMPLEXES OF 1-METHYL NAPHTHOATE AND  $\alpha$ - AND  $\beta$ -CYCLODEXTRINS  
Antonio Di Marino, Francisco Mendicuti
- P-099 THE PROTONATION THERMODYNAMICS OF FERULIC ACID/?-CYCLODEXTRIN COMPLEXES  
Giuliana Picciocchi, Cecilia Anselmi, and Mario Casolaro
- P-100 NEW FLUORESCENT SENSORS INCORPORATING A  $\beta$ -CYCLODEXTRIN AND A P YRIDINOINDOLIZINE UNIT  
François Delattre, Patrice Woisel, Marc Bria, Gheorghe Surpateanu
- P-101 THEORETICAL INVESTIGATION OF THE DMACA/CYCLODEXTRIN INCLUSION COMPLEX  
Herbert Georg, Kaline Coutinho
- P-102 STRUCTURAL STUDY BY NMR AND MD SIMULATIONS OF THE COMPLEXES BETWEEN 2-DIBENZOFURAN CARBOXYLATE ANION WITH  $\beta$ - AND  $\gamma$ -CYCLODEXTRINS  
Gustavo González-Gaitano, Pablo R. Sainz-Rozas, José Ramón Isasi, Carmen Gazpio, Gloria Tardajos, Andrés Guerrero
- P-103 PHYSICO-CHEMICAL CHARACTERIZATION OF DHEA-CYCLODEXTRIN-GLYCINE TERNARY SYSTEMS  
P. Corvi Mora, M. Cirri, F. Carli, P. Mura
- P-104 INTERACTION OF CHARGED PORPHYRINS WITH CYCLODEXTRINS  
Jirí Mosinger, Kamil Lang, Jan Sejbal
- P-105 TREND IN DISSOCIATION RATE OF TERNARY  $\alpha$ -CYCLODEXTRIN COMPLEXES WITH THE STRUCTURE OF BROMO-ALKYL-NAPHTHALENE GUEST MOLECULES  
Barratt Park, Ben Teresa, Merlyn Schuh
- P-106 INTERACTIONS OF OMEP RAZOLE AND PRECURSORS WITH  $\beta$ -CYCLODEXTRIN HOST MOLECULES  
Susana Santos Braga, Paulo Ribeiro-Claro, Martyn Pillinger, Isabel S. Gonçalves, Ana C. Fernandes, Florbela Pereira, Carlos C. Romão, Pedro Brito Correia, José J. C. Teixeira-Dias
- P-107 HOW STRONG ELECTROLYTES AFFECT THE INCLUSION OF DECANOIC ACID IN  $\beta$ -CYCLODEXTRIN  
Sérgio Lima, Brian J. Goodfellow and José J. C. Teixeira-Dias
- P-108 PREDICTION OF SOLUBILITY ENHANCEMENT FOR DRUGS IN CONCENTRATED AQUEOUS SOLUTIONS OF HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN USING MULTIVARIATE REGRESSION ANALYSIS  
Adriana Trapani, Angela Lopodota, Massimo Franco, Andrea Latrofa, Giuseppe Trapani, Gaetano Liso
- P-109 SURFACE PROPERTIES OF (OIL-SOLUBLE VITAMINS) / CYCLODEXTRINS INCLUSION COMPLEXES  
Nadezhda Novosyolova, Vladimir Matveenko
- P-110 POLAR EFFECTS IN CYCLODEXTRIN COMPLEXATION  
J.A. Carrazana García; V.H. Soto Tellini; A. Jover, F. Mejjide, J.V. Tato
- P-111 BINDING CONSTANTS FOR AROMATIC AMINO ACIDS AND THEIR DIPEPTIDES WITH SBE- $\gamma$ -CD USING CE CHROMATOGRAPHY  
Makoto Miyajima, Tetsuya Ozeki<sup>1</sup>, Valentino J. Stella
- P-112 INTER- AND INTRAMOLECULAR COMPLEXES FROM CYCLODEXTRINS: STRUCTURAL AND THERMODYNAMIC STUDIES  
M. M. Álvarez Alcalde\*, A. Jover, J. Carrazana García, F. Mejjide, J. Vázquez Tato
- P-113 STUDY OF THERMODYNAMIC PARAMETERS DETERMINING THE DRUG RELEASE FROM CYCLODEXTRIN COMPLEXES BY INTERPRETATION OF THEIR CHROMATOGRAPHIC BEHAVIOR  
S. Rozou, Ekaterina Antoniadou-Vyza
- P-114 USE OF CYCLODEXTRINES TO PREVENT FLUORESCENCE QUENCHING IN COMPLEX SYSTEMS  
Christophe Fajolles, Florie Ortega, Bruno Perly, Isabelle Texier-Nogues<sup>2</sup>, Laurent Mauclaire

- P-115 ANALYSIS OF ADAPHOSTIN-CHEMICALLY MODIFIED CYCLODEXTRINS COMPLEXES WITH NMR DIFFUSION MEASUREMENTS  
Serena Tongiani, David Vander Velde, Svetlana Silchenko, Leroy Chimilio, Valentino J. Stella
- P-116 USE OF THERMAL ANALYSIS AND X-RAY POWDER DIFFRACTION FOR STUDYING INCLUSION COMPOUNDS (HP- $\beta$ -CD/ATRA) IN UNFAVOURABLE CONDITIONS  
J. Moragny, P. Vanlemmens, H. Allouchi, J.C. Rouland
- P-117 INCLUSION COMPLEX THERMODYNAMICS OF RISPERIDONE WITH NATURAL AND MODIFIED CYCLODEXTRINS  
Musa I. El-Barghouthi, Nayif A. Masoud, Juma'a K. Al-Kafawein, Mohammad B. Zughul Adnan A. Badwan
- P-118 EXPERIMENTAL AND MOLECULAR MECHANICAL STUDIES OF COMPLEXATION OF SOME 2H- AND 3H-INDOLE DERIVATIVES WITH AQUEOUS  $\beta$ -CYCLODEXTRIN  
Khalidoun A. Al-Sou'od, Musa I. El-Barghouthi, Mohammad B. Zughul, Adnan A. Badwan
- P-119 STRUCTURAL CHARACTERIZATION OF  $\alpha$ -CYCLODEXTRIN AND AMPHIPHILIC MOLECULES COMPLEXES  
Delphine Gallois-Montbrun, Sylviane Lesieur, Michel Ollivon, Thierry Prangé, Dominique Durand, Geneviève Le Bas
- P-120 HOW RELATIVE HUMIDITIES AFFECT THE SOLID STATE INCLUSION OF SMALL AMPHIPHILIC GUESTS IN  $\beta$ -CYCLODEXTRIN  
Luís Cunha-Silva, José J. C. Teixeira-Dias
- P-121 CONSTRUCTION AND CHARACTERIZATION OF SUPRAMOLECULES BETWEEN DIPYRIDYL LIGANDS AND CYCLODEXTRINS  
Young-A Lee, Yoshinori Takashima, Akira Harada
- P-122 STRUCTURAL AND THERMAL STUDY OF A SOLID STATE PHASE TRANSITION OF A  $\beta$ -CYCLODEXTRIN COMPLEX  
Nicole Rysanek, Michel Coquillay, Claudie Bourgaux, Michel Ollivon

#### **Catalyse**

- P-123 SUPRAMOLECULAR CARBENE CHEMISTRY: THE FATE OF A REACTIVE INTERMEDIATE ENTRAPPED WITHIN THE CAVITY OF A DERIVATIZED CYCLODEXTRIN  
Jean-Luc Mieusset, Udo H. Brinker
- P-124 EFFECT OF CYCLODEXTRINS IN THE HYDROGEN PEROXIDE ACTIVATION BY METHYLTRIOXORHENIUM(VII) TOWARD OXIDATION REACTIONS  
hmad M. Al-Ajlouni, Nathir Al-Rawashdeh and Nazar Bataineh
- P-125 CESIUM COMPLEXES OF CYCLODEXTRIN DIMERS TO ENHANCE LUMINOL CHEMILUMINESCENCE  
e-Qi Yuan, Jianzhong Lu, Masato Atsumi, Ayako Izuka, Masaaki Kai and Kahee Fujita
- P-126 CYCLODEXTRIN BASED SELECTIVE MEDIUM FOR BIOCONVERSION  
homutov S.M., Sukhodol'skaya G.V., Averin A.D., Donova M.V.
- P-127 OXIDATION OF ORGANIC SULFIDES WITH HYDROGEN PEROXIDE AS CATALYZED BY METHYLTRIOXORHENIUM (VII)-CYCLODEXTRIN CATALYSTS  
hmad Al-Ajlouni, Nathir Al-Rawashdeh, Khaled Shawakfeh
- P-128 RANDOMLY METHYLATED  $\alpha$ -CYCLODEXTRIN: HIGHLY EFFICIENT MASS TRANSFER AGENT FOR RHODIUM CATALYZED HYDROFORMYLATION OF WATER INSOLUBLE OLEFINS IN BIPHASIC MEDIUM  
Loïc Leclercq, Mathieu Sautier, Yves Castanet, André Mortreux, Hervé Bricout, Eric Monflier
- P-129 DESIGN OF NEW DERIVATIVES OF CYCLODEXTRINS FOR AQUEOUS ORGANOMETALLIC CATALYSIS  
Pilippe Blach, Sophie Fourmentin, David Landy, Gheorghe Surpateanu, Hervé Bricout, Eric Monflier
- P-130 POLYMERIZATION OF VINYL MONOMERS IN CYCLODEXTRIN CHANNELS  
Tmer Uyar, Mariana Rusa, and Alan E. Tonelli

#### **Cyclodextrins and analytical technologies**

- P-131 CONTINUOUS SEPARATION PROCESS USING AQUEOUS SOLUTIONS OF BRANCHED CYCLODEXTRINS  
Isamu Uemasu, Hideki Takahashi and Koji Hara
- P-132 USE OF CYCLODEXTRINS IN SPIN TRAPPING EXPERIMENTS  
David Bardelang, Hakim Karoui, Antal Rockenbauer, Jean-Pierre Finet, Paul Tordo
- P-133 DIFFERENTIAL SOLUBILIZATION OF ITRACONAZOLE RACEMATE AND ENANTIOMERS BY 2-HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN  
Marcus E. Brewster, Jef Peeters, Jean Mesens and Peter Neeskens
- P-134 COMPLEX EFFECTS OF CYCLODEXTRINES ON NMR SPECTRA OF CYANINES  
Christophe Fajolles, Florie Ortega, Bruno Perly, Isabelle Texier-Nogues<sup>2</sup>, Laurent Mauclair

- P-135 HPLC COLUMNS FOR CYCLODEXTRIN CHEMISTS: NOVEL STATIONARY PHASES FOR ANALYSIS OF CYCLODEXTRIN DERIVATIVES  
Krisztina Kékesi, Julianna Szemán, Gábor Varga, Katalin Csabai, Lajos Szente
- P-136 DIFFERENTIATED ENANTIOSELECTIVITY OF MONO-2 AND MONO-6-O-ALKYLTHIO-CYCLODEXTRIN BASED CHIRAL STATIONARY PHASES : A COMPARATIVE HPLC AND SFC STUDY  
R. Duval
- P-137 MONO-2-O AND MONO-6-O-PENTYLTHIO-CYCLODEXTRIN BASED CHIRAL STATIONARY PHASES (CSPs) : DIFFERENTIATED ENANTIOSELECTIVITY IN HPLC  
R. Duval
- P-138 MONO-2-O-PENTENYL- AND MONO-6-O-PENTYLTHIO-CYCLODEXTRIN BASED CHIRAL STATIONARY PHASES BEARING THIOETHER OR SULFONE FUNCTIONALITY IN THE SPACER ARM : DIFFERENTIATED RECOGNITION ABILITY TOWARDS ENANTIOMERS IN HPLC AND IN SFC  
R. Duval
- P-139 CHIRAL SEPARATION USING CENTRIFUGAL PARTITION CHROMATOGRAPHY AND CYCLODEXTRINS  
Romain Jacquet, Claire Elfakir, Michel Lafosse
- P-140 SYNTHESIS AND ION EXTRACTING PROPERTIES OF SILICA MODIFIED BY  $\beta$ -CYCLODEXTRIN  
Lyudmila Belyakova, Sergiy Ryabov, Vladimir Belyakov, Konstantin Kazdobin, Angela F. Danil de Namor
- P-141 CHEMILUMINESCENT PROBES FOR SUPEROXIDE ANIONS WITH CHEMILUMINESCENCE RESONANCE ENERGY TRANSFER CONTROLLED BY CYCLODEXTRIN  
Katsunori Teranishi, Tatsuya Nishiguchi
- P-142 ACID DERIVATIVES OF  $\beta$ -CYCLODEXTRIN AS AUXILIARY AGENTS FOR ENANTIOMER RESOLUTION WITH CAPILLARY ZONE ELECTROPHORESIS  
Francesco Trotta, Orfeo Zerbinati and Samuele Meinero
- P-143 ARYLOXY ACID HERBICIDES CHROMATOGRAPHIC RETENTION MECHANISM STUDY IN PRESENCE OF CYCLODEXTRINE IN MOBILE PHASE  
François Darrouzain, Myriam Matoga, Eric Cavalli, Mireille Thomassin, Lhassane Ismaili, Yves Claude Guillaume
- P-144 SELECTIVE EXTRACTION OF XYLENE ISOMERS BY MOLECULAR RECOGNITION USING CYCLODEXTRIN-CONTAINING MEMBRANES  
S. Touil, S. Tingry, S. Bouchtalla, and A. Deratani

#### Cyclodextrins and pollution

- P-145 REMOVAL OF POPs FROM WASTE WATER BY USING  $\beta$ -CYCLODEXTRIN-BASED NANOSPONGES  
F. Trotta, R. Vallero, G. Cravotto, V. Tumiatti, C.M. Roggero
- P-146 SIMPLE CYCLODEXTRIN DERIVATIVES FOR ODOUR MANAGEMENT  
Frank Werner, Wilfried A. König
- P-147 CYCLODEXTRIN METAL COMPLEXES  
Johannes Martin Ihringer
- P-148 CYCLODEXTRIN ENHANCED HERBICIDE SOIL EXTRACTION  
Jaime Villaverde, José. I. Pérez Martínez, Celia Maqueda, Esmeralda Morillo
- P-149 BIODEGRADATION OF CYCLODEXTRINS IN SOIL  
E. Fenyvesi, K. Gruiz, S. Verstichel, B. De Wilde, K. Csabai, L. Leitgib, N. Szaniszló, J.Szejtli
- P-150 RANDOMLY METHYLATED  $\beta$ -CYCLODEXTRIN FOR BIOREMEDIATION OF HYDROCARBON-POLLUTED SOILS  
K. Gruiz, E. Fenyvesi, M. Molnar, L. Leitgib, A. Muranyi, N. Szaniszló, J.Szejtli
- P-151 COMPLEX FORMATION OF SELECTED HYDROCARBON CONTAMINANTS OF SOILS  
N. Szaniszló, É. Fenyvesi, K. Tóth, J. Szejtli
- P-152 EFFECTS OF METHYL EPOXYCINNAMATE MODIFIED  $\beta$ -CYCLODEXTRIN ON THE WATER SOLUBILITY OF PESTICIDES  
Goran Petrovic, Blaga Stojceva Radovanovic
- P-153 SOLUBILISATION OF VOLATILE ORGANIC COMPOUNDS BY CYCLODEXTRINS - A STUDY BY HEADSPACE GAS CHROMATOGRAPHY  
Sophie Fourmentin, Philippe Blach, David Landy, Gheorghe Surpateanu
- P-154 EFFECT OF THE TEMPERATURE ON THE BIODEGRADATION OF POLYCYCLIC AROMATIC HYDROCARBONS IN PRESENCE OF DIFFERENT CYCLODEXTRINS  
Laura Bardi, Enrico Parizia, Mario Marzona

- P-155 DESORPTION OF CARBARYL FROM CONTAMINATED SOIL BY CYCLODEXTRINS  
Wanchai yenpetch, Alisa Vangnai, and Piamsook Pongsawasdi
- P-156 REDOX PROPERTIES OF PESTICIDE BIFENOX IN THE PRESENCE OF CYCLODEXTRINS  
Magdaléna Hromádová, Petra Morkovská, Lubomír Pospíšil

#### **Cyclodextrins in materials and tissues**

- P-157 RELEASE OF CHLORHEXIDIN BY GUIDED TISSUE REGENERATION MEMBRANES : CYCLODEXTRINS SUPPLY  
F. Boschini, M. Jimenez, R. Mezziane, E. Delcourt-Debruyne, H.F. Hildebrand, M. Morcellet, B. Martel
- P-158 FINISHING OF POLYAMIDE FABRICS WITH CYCLODEXTRINS - POLYCARBOXYLIC ACIDS POLYMERS  
Yacine Elgoul, Bernard Martel, Michel Morcellet, Christine Campagne, Ahmida El Achari
- P-159 VASCULAR PET PROSTHESES WITH CONTROLLED ANTIBIOTIC RELEASE BY SURFACE MODIFICATION WITH CYCLODEXTRINS  
N. Blanchemain, S. Haulon, B. Martel, M. Traisnel, M. Morcellet, H. F. Hildebrand
- P-160  $\beta$ -CYCLODEXTRIN AS A RETARDANT IN PAN FIBRES DYEING  
Bojana Voncina, Vera Golob, Alenka Majcen Le Marechal
- P-161 MODIFICATION OF A KNITTED COTTON FABRIC WITH  $\beta$ -CYCLODEXTRIN FOR ANTIFUNGAL APPLICATION  
Rajendrakumar Kale, Nitin Bhimte, Pralhad Tayade, Suhas Gayal
- P-162  $\beta$ -CYCLODEXTRIN AS AN ADDITIVE FOR THE DYEING OF SYNTHETIC AND NATURAL FIBRES WITH DISPERSE-REACTIVE DYES  
Stefania Parlati, Roberto Gobetto, Andrea Pusceddu, Aldo Arrais, Claudia Barolo, Piero Savarino

#### **POSTERS ON WEDNESDAY 19 MAY 2004 (12.15h - 14.30h)**

#### **Cyclodextrins and nanotechnologies**

- P-163 IMMOBILIZED  $\beta$ -CYCLODEXTRINS: A MOLECULAR PRINTBOARD ON GLASS  
Steffen Onclin, Alart Mulder, Jurriaan Huskens, Bart Jan Ravoo and David N. Reinhoudt
- P-164 NOVEL TYPE OF NANOTUBES BASED ON CYCLODEXTRINS  
Irina Topchieva, Philipp Kalashnikov, Vasily Spiridonov, Sergey Gubin, Nadezhda Kataeva
- P-165 TOWARDS A BETTER UNDERSTANDING OF THE STRUCTURE OF AMPHIPHILIC CYCLODEXTRINS ( $\beta$ CDa) / PHOSPHOLIPID-BASED NANOAGGREGATES  
Annabelle Gèze, Luc Choisnard, Bruno Demé, Isabelle Grillo, J.L. Putaux, Denis Wouessidjewe
- P-166 TAMOXIFEN CITRATE LOADED AMPHIPHILIC  $\beta$ -CD NANOPARTICLES  
Erem Memisoglu-Bilensoy, Amélie Bochot, Dominique Duchêne, A. Atilla Hincal
- P-167 PEPTIDE- $\beta$ -CYCLODEXTRINS AND AMPHIPHILIC PEPTIDE- $\beta$ -CYCLODEXTRINS: A NEW CLASS OF GENE DELIVERY AGENTS?  
Kevin G. Devine, Raphael Darcy
- P-168 MICROSPHERES OF CYCLODEXTRIN-GRAFTED CHITOSAN FOR THE SIMULTANEOUS DELIVERY OF HYDROPHILIC AND LIPOPHILIC DRUGS  
Michele Trotta, Giancarlo Cravotto, Luisa Costa, Daniela Chirio
- P-169 INTERACTION OF CARBON NANOTUBES WITH SACCHARIDES – A POSSIBLE ROUTE TO BIOCOMPATIBLE COMPOSITES  
A. Casey, J. Moghal, G.F. Farrell, M. McNamara, H.J. Byrne, G. Chambers

#### **Cyclodextrins and pharmaceuticals**

- P-170 IMPROVEMENT AND CHARACTERIZATION OF THE IN VITRO DISSOLUTION BEHAVIOR OF SULINDAC BY COMPLEXATION WITH  $\beta$ -CYCLODEXTRIN  
Aiman A. Obaidat, Sina M. Matalqah, Naji M. Najib
- P-171 SOLID-STATE PROPERTIES OF TRIACETYL  $\alpha$ -,  $\beta$ -, AND  $\gamma$ -CYCLODEXTRINS AND POTENTIAL USE FOR PROLONGED RELEASE OF VANCOMYCIN  
G. Bettinetti, M. Sorrenti, L. Catenacci, M. Setti, F. Ferrari, S. Rossi, P. Carraro
- P-172 THE EFFECT OF  $\beta$ -CYCLODEXTRIN AND HYDROPHILIC CARRIERS ON MEBENDAZOLE DISSOLUTION PROCESS  
María Garrido, Amalia Rodríguez, Manuela Merino, María D. Veiga
- P-173 PHARMACEUTICAL APPLICATION OF CHEMICAL ENGINEERING : DIMENSIONLESS ANALYSIS OF A KNEADING PROCESS ALLOWING COMPLEXATION BETWEEN A DRUG SUBSTANCE AND  $\gamma$ -CYCLODEXTRIN  
Séverine Hutin

- P-174 COMPLEXATION OF FUROSEMIDE WITH DIMETHYL BETA-CYCLODEXTRIN: EFFECT ON SOLUBILITY, DISSOLUTION AND PHYSICOCHEMICAL PROPERTIES  
Thitima Chuchom, Nattha Kaewnopparat, Sanae Kaewnopparat, Chutima Jantarat, Prassanee Ragbamrung, Helmut Viernstein
- P-175 IMPROVED GLIPIZIDE DISSOLUTION THROUGH INCLUSION COMPLEX WITH  $\beta$ - AND HYDROXYPROPYL  $\beta$ -CYCLODEXTRIN  
Sanae Kaewnopparat, Nattha Kaewnopparat, Chutima Jantarat, Prassanee Ragbamrung, Thitima Chuchom, Helmut Viernstein
- P-176 IMPROVED FORMULATION PROPERTIES OF A CYCLODEXTRIN-CONTAINING SOLUTION: INCREASING SURFACE TENSION FOR A SURFACE ACTIVE DRUG CANDIDATE  
Jef Peeters, Marcus E. Brewster and Marc Meynendonckx
- P-177 CYCLODEXTRIN COMPLEXATION DECREASES THE LOG P OF A NEUROACTIVE STEROID  
Jef Peeters, Marcus E. Brewster, Jef Adriaensen, Adri Jacobs, Peter Neeskens
- P-178 INVESTIGATION OF SOLUBILITY PROPERTIES OF NIFLUMINIC ACID CONTAINING CYCLODEXTRINS AND POLYVIDON  
Rita Ambrus, Mihály Kata, István Eros, Zoltán Aigner
- P-179 DISSOLUTION STUDY OF NAPROXEN AND TWO DIFFERENT CYCLODEXTRINS IN PRESENCE OF SODIUM LAURYL SULPHATE  
Manuela Merino, María Garrido, M<sup>a</sup> Dolores Veiga
- P-180 PACLITAXEL SOLUBILISATION BY MEANS OF CYCLODEXTRINS FOR HYPERTHERMIC PERITONEAL PERFUSION  
W. Bouquet, W. Ceelen, C. Vervaeke, J.P. Remon, P. Pattynz, M. Peeters
- P-181 IMPROVEMENT OF CEFPODOXIME PROXETIL SOLUBILITY, ANTIMICROBIAL ACTIVITY AND PROTECTION FROM INTESTINAL LUMEN HYDROLYSIS BY CYCLODEXTRIN SYSTEM  
Santoshanand Thakkar, Amol Burkul, Bhanudas Kuchekar
- P-182 THE INFLUENCE OF HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN ON THE ACTIVITY OF ANTIMICROBIAL PRESERVATIVES FOR ORAL PHARMACEUTICAL PRODUCTS  
Roger Embrechts, Marc François, Ivo Van Assche
- P-183 CONTROLLED RELEASE OF VINPOCETINE MULTICOMPONENT COMPLEXES FROM HPMC MATRICES FOR ORAL DELIVERY  
Laura Ribeiro, Domingos Ferreira, Francisco Veiga
- P-184 INFLUENCE OF CYCLODEXTRINS ON THE AQUEOUS SOLUBILITY, PHOTOSTABILITY AND ANTIOXIDANT ACTIVITY OF INDOLINONIC NITROXIDE RADICALS  
Santo Scalia, Elisabetta Damiani, Silvia Simeoni, Paola Astolfi, Lucedio Greci
- P-185 ANTIRADICAL ACTIVITIES OF  $\alpha$ -TOCOPHEROL AND  $\alpha$ -TOCOPHEROL+ $\beta$ -CYCLODEXTRIN COMPLEX  
M.V. Kasaikina, Yu.G. Bogdanova, V.N. Matveenko, O.T. Kasaikina
- P-186 EFFECT OF CYCLODEXTRINS ON STABILITY OF A NEW PROGESTIN  
Thomas Backensfeld, Peter Höfert
- P-187 STABILIZATION OF SODIUM DICLOXACILLIN BY CYCLODEXTRIN INCLUSION  
M.M. Echezarreta-López, I. Otero-Mazoy, J.J. Torres-Labandeira
- P-188 EFFECT OF CYCLODEXTRIN COMPLEXATION ON THEOPHYLLINE RELEASE FROM COATED POLYMERIC MATRIX TABLETS  
P. Mura, A.L. Ceballos, M. Cirri, F. Maestrelli
- P-189 PIROXICAM-CYCLODEXTRIN-HYDROXYPROPYLMETHYL CELLULOSE MULTICOMPONENT SYSTEMS  
Mario Jug, Mira Becirevic-Lacan
- P-190 PREPARATION, CHARACTERIZATION AND EVALUATION OF PIROXICAM-CYCLODEXTRIN COMPLEXES FOR IMPROVED ORAL DELIVERY  
S. Baboota and K. Kohli
- P-191 INFLUENCE OF METHYL- $\beta$ -CYCLODEXTRIN ON THE RELEASE KINETICS OF INULIN ENCAPSULATED IN BIOADHESIVE LIPOSOMES  
G. Piel, L. Boulmedarat, A. Bochot, L. Delattre, E. Fattal
- P-192 APPLICABILITY OF CYCLODEXTRINS TO MODIFY THE PHYSICOCHEMICAL AND BIOPHARMACEUTICAL CHARACTERISTICS OF ATENOLOL  
Amol Burkul, Santoshanand Thakkar, Bhanudas Kuchekar
- P-193 HYDROXYPROPYL- $\beta$ -CYCLODEXTRIN IN ORAL TABLET FORMULATION OF KETOCONAZOLE: IN VITRO EVALUATION AND BIOAVAILABILITY STUDIES IN RABBITS  
Filiz Taneri, Tamer Güneri
- P-194 ENHANCEMENT OF EFLUCIMIBE BIOAVAILABILITY BY COMPLEXATION WITH GAMMA-CYCLODEXTRIN  
Alexandre Gil, Joel Bougaret, Elie Leverd, Christian Filaquier, Alain Chamayou, Michel Baron

- P-195 IMPROVEMENT OF THE SOLUBILITY AND ABSORPTION OF POORLY SOLUBLE DRUG-CYCLODEXTRIN COMPLEX WITH OR WITHOUT BILE ACID  
Kunio Nakanishi, Masatoshi Nishi, Yosinori Iba, Tohru Masukawa, Mituru Ohta
- P-196 DEVELOPMENT OF NOVEL CD CONTAINING FORMULATIONS FOR SUBLINGUAL DELIVERY OF TETRAHYDROCANNABINOL  
Janne Mannila, Tomi Järvinen, Kristiina Järvinen, Marko Lehtonen, Jussi Tervonen, Pekka Jarho
- P-197 EFFECT OF CYCLODEXTRIN COMPLEXATION ON THE ORAL BIOAVAILABILITY OF MELOXICAM  
S. Baboota and S.P. Agarwal
- P-198 RADIOLABELING OF CYCLODEXTRIN WITH TC99M: POSSIBLE ROLE IN INFECTION IMAGING  
G.P. Bandopadhyaya, Sukanta Barai, Jaya Shukla, C.S. Bal
- P-199 CHARACTERISATION OF THE RIBAVIRIN COMPLEXES WITH NATIVE CYCLODEXTRINS: IMPROVED IN VITRO ANTIVIRAL ACTIVITY OF THESE ASSOCIATION COMPLEXES  
N. Grancher, F. Kedzierewicz, V. Venard, A. Marsura, C.P. Muller, C. Finance, A. Le Faou
- P-200 QUATERNARY AMMONIUM CYCLODEXTRINS – MOLECULES WITH A WIDE RANGE OF APPLICATIONS  
Georg Kis, Christian Schoch, Jean-Claude Bizec
- P-201 TOXICOLOGICAL PROPERTIES OF QUATERNARY AMINO AND ANHYDRO CYCLODEXTRINS  
M. Petró, G.L. Kis, C. Schoch, Gy. Horváth, L. Szente, J. Szejtli
- P-202 SUSPENSIONS OF  $\alpha$ -CD FOR TREATMENT OF EXPERIMENTAL CRYPTOSPORIDIOSIS IN NEONATAL LAMBS  
J. A. Castro-Hermida, F. Méndez-Hermida, M. Mezo-Menéndez, F. J. Otero-Espinar, J. Blanco-Méndez, E. Ares-Mazás
- P-203 COMPARATIVE EFFECTS BETWEEN NEW CYCLODEXTRINS-BASED- AND WATER-SOLUBLE PRODRUGS-PROPOFOL FORMULATIONS  
Adriana Trapani, Valentino Laquintana, Nunzio Denora, Massimo Franco, Giuseppe Trapani, Gaetano Liso
- P-204 ENHANCEMENT OF ANTIINFLAMMATORY PROPERTIES OF NAPROXEN BY CYCLODEXTRIN-MODIFIED POLYSACCHARIDES  
Hector L. Ramírez, A. Valdivia, A. Domínguez<sup>1</sup>, R. Cao, A. Fragoso, Juan José Torres-Labandeira, R. Villalonga
- P-205 POTENTIAL USE OF DENDRIMER/ $\alpha$ -CYCLODEXTRIN CONJUGATE AS A CARRIER OF SMALL INTERFERING RNA (SIRNA)  
Hidetoshi Arima, Toshihito Tsutsumi, Koki Wada, Fumitoshi Hirayama, Kaneto Uekama
- P-206 CYTOTOXICITY OF DEHYDROCROTONIN AND ITS  $\beta$ -CYCLODEXTRIN COMPLEX ON HUMAN LEUKEMIC CELLS  
M. C. Anazetti, P. S. Melo, C. A. A. De Carvalho, M. B. M. De Azevedo, N. Durán, M. Haun
- P-207 CYTOTOXIC EFFECTS OF DEHYDROCROTONIN AND ITS  $\beta$ -CYCLODEXTRIN COMPLEX ON V79 CELLS  
M. B. M. De Azevedo, C.A.A. De Carvalho, D. H. A. Corrêa, P. S. Melo, N. Durán, M. Haun
- P-208 EFFECTS OF CYCLODEXTRINS AND CHITOSAN ON GLIBURIDE DISSOLUTION AND PERMEABILITY THROUGH INTESTINAL EPITHELIAL CELLS (CACO 2)  
N. Zerrouck, S. Ancillotti, F. Maestrelli, M. Cirri, P. Mura
- P-209 ETHYL  $\beta$ -CD - MEDIATED ALTERATIONS IN CELL WALL COMPOSITION AND ULTRASTRUCTURE OF SAPROPHYTE MYCOBACTERIA  
V.M. Nikolayeva, D.V. Dovbnya, S.A. Gulevskaya, O.V. Egorova, M.V. Donova
- P-210 TOPICAL FORMULATIONS OF VALDECOXIB-CYCLODEXTRIN BINARY SYSTEM  
Aftab Modi, Rajendrakumar Kale, Pralhad Tayade
- P-211 EFFECT OF METHYLATED- $\beta$ -CYCLODEXTRIN ON THE SKIN AND INFLUENCE ON CYPROTERONE ACETATE PERCUTANEOUS ABSORPTION  
S. Henry de Hassonville, B. Christiaens, G. Piel, P. Chiap, P. Hubert, J. Crommen, L. Delattre, G. Piérard, B. Evrard
- P-212 NEW FORMULATION TO PRODUCE A CONTROLLED-RELEASING SYSTEM OF THE INCLUSION COMPLEX OF CHLORHEXIDINE AND  $\beta$ -CYCLODEXTRIN FROM CERAMICS PELLETS  
Mariangela B. M. De Azevedo, Carlos A. A. De Carvalho, Rubén Dario Sinisterra
- P-213 CYCLODEXTRINS SALICYLIC ACID FORMULATION FOR PSORIASIS TREATMENT  
A. L. Santos, E. Gouveia, H. Cabral Marques
- P-214 LIPOSOMES CONTAINING KETOPROFEN-HYDROXY-PROPYL- $\beta$ -CYCLODEXTRIN COMPLEXES - EFFECT OF LIPOSOME PREPARATION METHOD  
F. Maestrelli, M.L. González-Rodríguez, A.M. Rabasco, P. Mura
- P-215 PULMONARY ADMINISTRATION OF BECLOMETHASONE - ? -CYCLODEXTRIN COMPLEX  
R. Almeida, H. Cabral Marques

- P-216 LOCAL TOXICITY OF CYCLODEXTRINS IN PULMONARY EPITHELIAL CELLS (CALU-3) IN VITRO  
Pekka Jarho, Tarja Kinnarinen, Kristiina Järvinen, Henna Vihola, Jouni Hirvonen, Tomi Järvinen
- P-217 OCULAR TOLERABILITY OF QA- $\beta$ -CD AND QA- $\gamma$ -CYCLODEXTRINS  
Jean-Claude Bizec, Jacques Kameni, Maggy Babiolo, Georg Kis
- P-218 DEVELOPMENT OF COX189 EYE DROPS  
Maggy Babiolo, Georg Kis
- P-219 PREPARATION AND IN VIVO EVALUATION OF AQUEOUS DORZOLAMIDE/RM $\beta$ CD EYE DROP SOLUTIONS  
T. Loftsson, E. Stefánsson, H. H. Sigurðsson, E. Guðmundsdóttir, T. Eysteinnsson
- P-220 EFFECT OF HYDROXYPROPYL BETA CYCLODEXTRIN COMPLEXATION ON AQUEOUS SOLUBILITY, STABILITY,  
AND CORNEAL PERMEATION OF ACYL ESTER PRODRUGS OF GANCICLOVIR  
Mitra R., and Ashim K. Mitra

**LATE PROPOSALS** (to be incorporated in the poster programme)

- P SYNTHESIS AND PROPERTIES OF ALKYLATED PER(3,6-ANHYDRO)ALPHA CYCLODEXTRINS  
J.-Y. Pailler, J.-C. Debouzy, A. Gadelle
- P ENCAPSULATION OF CITRIC FLAVOUR WITH BETA-CYCLODEXTRIN: STUDIES ON LEMON, TANGERINE AND  
ORANGE OIL  
Roberto da Silva