

SCIENTIFIC PROGRAMME

Plenary Lectures (Hall A)

L.01 (Mon 12.07.2010, 9.30-10.15)

Zdzisław Latajka

Wrocław as the Academic Center – Past and Present

L.02 (Mon 12.07.2010, 10.30-11.15)

Koop Lammertsma

Phosphorus an Endangered and Enabling Element

L.03 (Mon 12.07.2010, 11.45-12.30)

Christopher C. Cummins, Brandi M. Cossairt, Daniel Tofan and Alexandra Velian*

Phosphorus Transfer Reactions for the Synthesis of Main Group Molecules and Materials

L.04 (Tue 13.07.2010, 9.00-9.45)

Christian V. Stevens, Thomas Heugebaert and Ann De Blicq*

Entries to Azaheterocyclic Phosphonates from Phosphonoazadienes or Acyclic Aminophosphonates

L.05 (Wed 14.07.2010, 9.00-9.45)

Jean Pierre Majoral

Phosphorus Dendrimers. What for?

L.06 (Thu 15.07.2010, 9.00-9.45)

Irina L. Odinet, Sergey N. Osipov and Gerd-Volker Rösenthaler*

Phosphorus Click Chemistry: from Biologically Active Compounds to Ligands

1st EuroPhos (Hall A)

Session EP.01 and EP.02 (Mon 12.07.2010, 12.30-13.30)

Chair: Evamarie Hey-Hawkins

EP.01

Anne-Marie Caminade and Jean-Pierre Majoral*

Fluorescent Phosphorus Dendrimers and Their Role in Supra-molecular Interactions

EP.02

Ulrich Zenneck

Asymmetric P-C Cage Compounds, Enantioselective Rearrangement Reactions and Their Transition Metal Complex Chemistry

Session EP.03-06 (Mon 12.07.2010, 15.00-17.00)

Chair: Koop Lammertsma

EP.03

M. Scheer, A. Schindler, F. Dielmann and S. Welsch*

Group 15 Element Ligand Complexes as Building Blocks for Spherical Giant Molecules and Supramolecular Assemblies

EP.04

Dietrich Gudat, Gernot Bauer, Samir H. Chikkali, Martin Nieger and Anke Niethammer*

Ditopic Catecholphosphines as Versatile Building Blocks for Template-centered Chelate Ligands and Complexes

EP.05

Miguel A. Ruiz

Protonation of Phosphanyl- and Phosphanylidene-Bridged Binuclear Carbonyl Complexes: Not so Simple Reactions

EP.06

Christian Müller, Jarno Weemers, Patrick Bäuerlein, Leen Broeckx, Martin Lutz and Dieter Vogt*

Functionalized Phosphinines: from Molecular Design to Applications

ORAL PRESENTATIONS

Section S.01 (Halls A and B)

Advanced Methods for the Synthesis of Organophosphorus Compounds

Session S.01.01-04 (Tue 13.07.2010, 10.00-11.20, Hall B)

Chair: Masaaki Yoshifuji

S.01.01

Neil Burford, Yuen Ying Carpenter, Eamon Conrad and Dane Knackstedt*

Catena-Phosphinophosponium Ions

S.01.02

Igor Shevchenko, Rostislav Mikolenko, Vasyl Andrushko, Aleksey Rogalyov, Konstantin Turchenyuk and Arkadii Tarasevich*

Compounds Featuring P-C-P Fragment with Differently Coordinated Phosphorus Atoms

S.01.03

*P. Wawrzyniak, D. M. U. K. Somisara and P. Kilian**

Phosphorus Peri-substituted Naphthalenes

S.01.04

Shigekazu Ito, Joji Miura, Noboru Morita, Masaaki Yoshifuji and Anthony J. Arduengo, III*

Diverse Reactions of Sterically Protected 1,3-Diphosphacyclobutane-2,4-diyls with Hydride

Session S.01.05-08 (Tue 13.07.2010, 11.50-13.10, Hall B)

Chair: Rafael Cherkasov

S.01.05

Shigekazu Ito, Joji Miura, Noboru Morita, Masaaki Yoshifuji and Anthony J. Arduengo, III*

Modeling the Direct Activation of Dihydrogen by a P₂C₂-Cyclic Biradical: Formation of a Cyclic Bis(P-H λ⁵-phosphorane)

S.01.06

Eddy Maerten, Florie Lavigne, Gilles Alcaraz and Antoine Baceiredo*

Synthesis and Reactivity of the First Stable Phosphino(boryl)carbene

S.01.07

Arnaud Tessier, Emmanuelle Rémond, Frédéric Leroux, Jérôme Bayardon and Sylvain Jugé*

New Route for P-Chirogenic Phosponium Salts

S.01.08

K. Michał Pietrusiewicz, Kamil Dziuba and Małgorzata Lubańska*

Novel Stereoselective BH₃ Reduction of Carbon-Phosphorus Bond in the Synthesis of Enantiopure Triarylphosphines

Session S.01.09-12 (Tue 13.07.2010, 14.40-16.00, Hall B)

Chair: Vladimir Mironov

S.01.09

D. A. Tatarinov, V. F. Mironov, A. A. Kostin, T. A. Baronova, A. V. Nemtarev, B. I. Buzykin and Yu. G. Elistratova*

The New Versatile Synthesis of Functionalized Phosphine Oxides – Efficient Ligands for the Rare-earth Metals Extraction

S.01.10

David Gatineau, Laurent Giordano, Delphine Moraleda and Gérard Buono*

Chiral Secondary Phosphine Oxides (SPOs) as Preligands of Transition Metal and Precursors of P-Stereogenic Phosphorus Compounds

S.01.11

Marek Stankevič and K. Michał Pietrusiewicz*

Birch Reduction in Phosphorus Chemistry

S.01.12

Aleksandr N. Kostyuk, Bogdan B. Barnych, Yurii V. Svyashchenko, Nadya V. Schevchuk, Aleksandr M. Pinchuk and Alexander B. Rozhenko*

Synthesis of λ^5 -Phosphinines

Session S.01.13-16 (Tue 13.07.2010, 16.30-17.50, Hall B)

Chair: Andrey Karasik

S.01.13

V. F. Mironov, L. M. Burnaeva, G. A. Ivkova, L. M. Abdrakhmanova, M. N. Dimukhametov and I. V. Konovalova*

The Cycloexpansion Reactions in the Range of Benzo[e]-1,3,2-diheterophosphorin-4-ones and 4-Oxo-1,3,2-dioxaphospholanes

S.01.14

Anastasiya N. Huruyeva, Anatoliy P. Marchenko, Grygoriy N. Koidan, Evgeniy V. Zarudnitskii, Aleksandr A. Yurchenko and Aleksandr N. Kostyuk*

Phosphorylation of 1,2-Disubstituted Imidazoles

S.01.15

Yu. G. Gololobov, V. N. Khrustalev, A. S. Peregudov, P. V. Petrovskii and M. Yu. Antipin*

Unusual N-Arylation of P-Containing Cyano-carbanions by 2,4,6-Trinitrofluorobenzene Leading to Barbiturates and 1,3-Oxazine-2,4-diones

S.01.16

A. V. Bogdanov, V. F. Mironov, I. P. Romanova, L. I. Musin, G. R. Shaikhutdinova, D. B. Krivolapov, A. T. Gubaidullin, A. A. Balandina, Sh. K. Latypov and O. G. Sinyashin*

α -Ketocarbenes on the Basis of Acenaphthene and Isatin Derivatives: Generation by Tris(diethylamino)phosphine and Trapping by Fullerene C₆₀

Session S.01.17-20 (Wed 14.07.2010, 10.00-11.20, Hall A)

IV Aminophosphorus and Phosphopeptides Meeting

Chair: Francisco Palacios

S.01.17

*Piotr Łyżwa, Jerzy Krysiak, Wanda H. Midura and Marian Mikołajczyk**

Asymmetric Synthesis of Aminophosphonic Acids Mediated by Chiral Sulfinyl Auxiliary: New Results

S.01.18

Javier Vicario, Francisco Palacios and Domitila Aparicio*

α -Ketiminophosphonates. Synthesis and Applications

S.01.19

Paulina Majewska, Barbara Lejczak and Paweł Kafarski*

Determination of Absolute Configuration of Hydroxyphosphinates with Two Stereogenic Centers

S.01.20

Jesús M. de los Santos, Roberto Ignacio, Domitila Aparicio and Francisco Palacios*

Phosphorated Nitrosoalkenes as Synthetic Tools for the Preparation of α -Aminophosphorus Derivatives and Functionalized Nitrogen-containing Heterocycles

Session S.01.21-24 (Wed 14.07.2010, 11.50-13.10, Hall A)

IV Aminophosphorus and Phosphopeptides Meeting

Chair: Marian Mikołajczyk

S.01.21

Barbara Malinowska, Piotr Młynarz, Barbara Lejczak and Paweł Kafarski*

Stereochemical Composition of *meta* and *para* Bis[(diethoxyphosphoryl)-hydroxymethyl]benzene Obtained due to Desymmetrization with Lipases

S.01.22

Concepción Alonso, Francisco Palacios, María Fuertes and Gloria Rubiales*

Lewis Acid Activation on Aza-Diels-Alder Reaction of Phosphinyl- and Phosphonyl-substituted Aldimines

S.01.23

Agnieszka Grabowiecka, Łukasz Berlicki, Arkadiusz Białas, Paulina Kosikowska, Marta Bochno and Paweł Kafarski*

N-Substituted Aminomethylphosphonic and Aminomethyl-P-methylphosphinic Acids as Inhibitors of Ureases

S.01.24

Didier Villemin, Bernard Moreau and Nathalie Bar*

Aminophosphonic Acids: from Hybrid Materials to Immobilization of Enzymes on Magnetic Nanoparticles

Session S.01.25-28 (Wed 14.07.2010, 10.00-11.20, Hall B)

Chair: György Keglevich

S.01.25

*Stephanie Ortial and Jean-Luc Montchamp**

Synthesis of Alkenylphosphine Boranes: an Olefination Approach

Cancelled and replaced by:

Kenji Tsunekawa, Mitsuji Yamashita, Michio Fujie, Taishi Niimi, Takuya Suyama, Kazuhide Asai, Satoru Ito, Junko Yamashita, Manabu Yamada, Nobuhisa Ozaki and Satoki Nakamura*

Preparation of Phospha Sugar Analogues and Their Evaluation as Novel Molecular Targeting Anti-cancer Agents

S.01.26

David Virieux, Pierre Fourgeaud, Jean-Pierre Vors, Jean-Noël Volle and Jean-Luc Pirat*

Allenyl Phosphinates, Outstanding Reagents in the Synthesis of Phosphorus Heterocycles

S.01.27

Marcin Kalek, Martina Jezowska and Jacek Stawinski*

Synthesis of Allenylphosphonates by Palladium-catalyzed Propargylic Substitution

S.01.28

L. M. Abdrakhmanova, V. F. Mironov, T. P. Gryaznova, S. A. Katsuba and M. N. Dimukhametov*

The Molecular Design of «Carcass» Type Phosphoranes, Based on the Reaction of Bifunctional P(III)-Cyclic Derivatives and Unsaturated Activated Systems

Session S.01.29-33 (Wed 14.07.2010, 11.50-13.30, Hall B)

Chair: Oleg Kolodiazhnyi

S.01.29

K. E. Metlushka, D. N. Sadkova, L. N. Shaimardanova, O. N. Kataeva and V. A. Alfonsov*

Stereoselective Synthesis of α -Aminophosphonic Acids Using the Betti Base as Chiral Auxiliary

S.01.30

Jarosław Lewkowski and Marek Dziegielewski*

Stereochemistry of Phosphorus Nucleophile Addition to Azomethine Bonds of Achiral Terephthalic Schiff Bases

S.01.31

P. P. Onys'ko, T. V. Kim, O. I. Kyselyova, Y. V. Rassukana and A. D. Synytsya*

Imidoylphosphonates-alkylideneaminophosphonates Interconversions via Biomimetic Transamination Reaction

S.01.32

E. Rémond, J. Bayardon, M. J. Ondel and S. Jugé*

Synthesis of Unusual Amino Acids by C=C Bonds Formation on the Lateral Chain

S.05.33

Joachim Heinicke, Joanna Lach, Kaleswara R. Basvani, Normen Peulecke and Peter G. Jones*

α -Phosphino Amino Acids: Synthesis, Structure and Reactivity

Session S.01.34-37 (Thu 15.07.2010, 10.00-11.20, Hall B)

Chair: Francisco Palacios

S.01.34

Tadeusz Gajda and Anna Gajda*

1-Nitroalkanephosphonates – Key Substrates in the Synthesis of Polyfunctional Nitro- and Aminophosphonates

S.01.35

Kamyar Afarinkia, Martin Royappa, Ian J. Scowen, Johnathan W. Steed and Hiu-wan Yu*

Synthesis and Folding Properties of α -Hydroxy and α -Amino Phenylphosphinate Pseudopeptides

S.01.36

Jiayi Xu and Fanhua Meng*

Novel Synthesis of Phosphonopeptides via the Multicomponent Condensation Reaction

S.01.37

Mario Ordóñez, Selene Lagunas-Rivera and Javier Cervantes*

Reversal Diastereoselectivity in the Benzylation of Phosphonopropanoamides

Session S.01.38-41 (Thu 15.07.2010, 11.50-13.10, Hall B)

Chair: Mario Ordóñez

S.01.38

*Cécile Garzon, Mireille Attolini and Michel Maffei**

Synthesis of Heterocyclic and Carbocyclic Vinyl Phosphonates with Biological Activities

S.01.39

Kerry Hughes and M. Migaud*

Synthesis of Glycosyl Phosphonates, Cancer and Anti-viral Lead Drugs

S.01.40

*Kristina A. Nikitina, Vera L. Mamedova and Vladimir A. Alfonsov**

Diterpenoid Isosteviol in Organophosphorus Synthesis

S.01.41

Rafał Karpowicz and Jarosław Lewkowski*

Aminophosphonic Systems Bearing Ferrocene Moiety

Section S.02 (Halls A and C)

Phosphorus Based Catalysts in Organic Synthesis

Session S.02.01-04 (Thu 15.07.2010, 10.00-11.20, Hall A)

Chair: Declan Gilheany

S.02.01

*Lidia Madalińska, Sylwia Kaczmarczyk, Małgorzata Kwiatkowska and Piotr Kiełbasiński**

Chemoenzymatic Syntheses of Chiral Bidentate and Tridentate Phosphorus Catalysts

S.02.02

Jérôme Bayardon, Hugo Lauréano, Frédéric Leroux, Jean Christophe Henry and Sylvain Jugé*

First Stereoselective Synthesis of *o*-Functionalized P-Chirogenic Phosphines

S.02.03

Slawomir Frynas, Fanny Chaux, Philippe Richard and Sylvain Jugé*

New Enantiodivergent Synthesis of P-Chirogenic Alkylphosphines

S.02.03

C. Czauderna, A. M. Z. Slawin and P. C. J. Kamer*

Wide Bite-angle Diphosphorus Ligands: Synthesis, Coordination Chemistry and Asymmetric Catalysis

Session S.02.05-08 (Thu 15.07.2010, 14.40-16.00, Hall C)

Chair: Kazimierz M. Pietrusiewicz

S.02.05

*Jeroen Wassenaar, Rick C. Bauer, Ronald Lindner, Bas de Bruin, Joost N. H. Reek and Jarl Ivar van der Vlugt**

Polydentate All-phosphorus Donor Scaffolds for Cooperative Transition Metal Chemistry and Small Molecule Activation

S.02.06

Ken Tamura, Masashi Sugiya and Tsuneo Imamoto*

P-Chiral Phosphine Ligands with *tert*-Butylmethylphosphino Groups: Synthesis and Application in Transition Metal-catalyzed Asymmetric Reactions

S.02.07

Maryse Gouygou, Jean-Claude Daran and Emmanuel Robé*

Chiral Diphosphines and Diphosphinites Derived from 2,2-Biphosphole: Stereodynamic Ligands for Asymmetric Catalysis

Cancelled and replaced by P1.02.01:

Tadeusz Gorewoda, Roman Mazurkiewicz, Nikodem Kuźnik and Wojciech Simka*

3-Triphenylphosphonio-2,5-piperazinediones – New Chiral Glycine α -Cation Equivalents

S.02.08

Declan G. Gilheany

Asymmetric Appel Conditions for *P*-Stereogenic Phosphorus Compounds and Their Use in Asymmetric Hydrogenation

Section S.03 (Halls A, C and D)

Biologically Active Compounds

Session S.03.01-04 (Tue 13.07.2010, 10.00-11.20, Hall C)

Chair: Józef Oleksyszyn

S.03.01

Marcin Drąg, Marcin Poręba, Renata Grzywa, Anna Gajda, Józef Oleksyszyn, Matthew Bogyo, Jonathan Ellman and Guy S. Salvesen*

Substrate Specificity of Aminopeptidases as a Tool for Design of Inhibitors

S.03.02

Stamatia Vassiliou, Łukasz Berlicki, Agnieszka Grabowiecka, Paulina Kosikowska, Athanasios Yiotakis and Pawel Kafarski*

Inhibition of Bacterial Ureases by Phosphinic Peptidomimetics

S.03.03

Marcin Sieńczyk, Dawid Podgórski, Aleksandra Błażejewska, Paulina Kasperkiewicz, Łukasz Winiarski and Józef Oleksyszyn*

Combinatorial Synthesis of Phosphonic Peptide-mimetics as Human Neutrophil Elastase Inhibitors

S.03.04

*Julia Frant, Veerendhar Ainelly, Reuven Reich and Eli Breuer**

New Antimetastatic Carbamoylphosphonate Matrix Metalloproteinase Inhibitors

Session S.03.05-08 (Tue 13.07.2010, 11.50-13.10, Hall C)

Chair: Jiří Jiráček

S.03.05

Jean-Luc Pirat, Ludovic Clarion, Damien Filippini, Marie-Hélène Hirlemann, Carine Jacquard, Norbert Bakalara, Jean-Noël Volle and David Virieux*

Synthesis, Reactivity and Stereochemistry of New Phosphinosugars

S.03.06

Christopher D. Spilling, Raj Malla, Supratik Dutta and Cynthia M. Dupureur*

The Synthesis of Cyclophostin, the Cyclipostins and some Phosphonate Analogs

S.03.07

Jean-Noël Volle, Tangui Maurice, Jean-Luc Pirat and David Virieux*

Illustration of a Proof of Concept: Phosphinolactone as Bioisostere of the Lactol Group

S.03.08

Ewa Luchter-Wasylewska

Hydrolysis of Phosphoesters Catalysed by Homoallosteric Human Prostatic Acid Phosphatase

Session S.03.09-12 (Tue 13.07.2010, 16.30-17.50, Hall D)

Chair: Barbara Lejczak

S.03.09

M. Brzezińska-Rodak, E. Żymańczyk-Duda, M. Klimek-Ochab and B. Lejczak*

Synthesis of Chiral Phosphonates via Biocatalyzed Oxidation

S.03.10

Magdalena Klimek-Ochab and Barbara Lejczak*

Biodegradation of Selected Organophosphonates by Psychrophilic Fungi

S.03.11

Jacek Lipok, Dorota Wieczorek and Hanna Studnik*

**Biodegradation of Aminophosphonate Xenobiotics by Cyanobacteria and Mycelial Fungi
S.03.12**

Hanna Studnik and Jacek Lipok*

Biodegradation of Aminophosphonic Acids by Cyanobacteria

Session S.03.13-16 (Wed 14.07.2010, 10.00-11.20, Hall C)

Chair: Charles McKenna

S.03.13

*Malgorzata Sierant, Magdalena Janicka, Xianbin Yang, Ellen Mierzejewski and Barbara Nawrot**

Synthesis as well as Physico-chemical and Biological Characterization of siRNA Duplexes Possessing Phosphorodithioate Bonds

S.03.14

M. E. Migaud

Inhibiting NAD Dependent Enzymes

S.03.15

Jolanta Haluszczak, Marie E. Migaud and Simon J. F. Macdonald*

NAD Analogues Based on Benzimidazoles and Azabenzimidazoles

S.03.16

*Chuan Bai and Karol S. Bruzik**

Phosphatidylinositol-specific Phospholipase C from *Streptomyces*: Unique Mechanism and Substrate Specificity

Session S.03.17-20 (Wed 14.07.2010, 11.50-13.10, Hall C)

Chair: Silvain Jugé

S.03.17

Anatolii E. Shipov, Galina K. Genkina, Pavel V. Petrovskii, Evgenii I. Goryunov and Michael. V. Makarov*

Novel Biologically Active 1,3,2-Oxazaphosphinane Derivatives

S.03.18

Babak Kaboudin, Fariba Saadati and Tsutumo Yokomatsu*

Synthesis and Stereochemical Determination of Novel 1-Aminophosphinic Acids: Synthesis of Novel C₂-Symmetry Phosphinic Acid Pseudodipeptides and Novel Cyclic 1-Hydroxy-1'-amino-1,1-bisphosphinic Acids

S.03.19

Vadim I. Ilin, Evgeniy N. Ofitserov and Leonid V. Kovalenko*

1-Hydroxyalkylidene-1,1-bisphosphonates. Synthesis and Physico-chemical Properties

S.03.20

*Joseph Mammano, Tresa Ambooken, Jordan Verdis and Luis Vargas**

Reactivity of Tris(trimethylsilyl) Phosphite (TMSP): Reactions with Haloformates and Halothionoformates

Session S.03.21-24 (Thu 15.07.2010, 11.50-13.10, Hall A)

Chair: Tadeusz Gajda

S.03.21

Frank H. Ebetino, Allan Boyde, Anke Roelofs, Shuting Sun, Katarzyna M. Błażewska, Boris A. Kashemirov, Zachary Henneman, George H. Nancollas, R. Graham G. Russell, Michael J. Rogers, Fraser P. Coxon and Charles E. McKenna*

Fluorescent Bisphosphonates with Varying Mineral Affinity Display Differential Skeletal Distribution *in vivo*

S.03.22

Mikhail V. Makarov, Evgenia S. Leonova, Ekaterina Yu. Rybalkina and Irina L. Odinets*
Investigation of Synthetic Routes to Antitumor and Fluorecent Amidophosphates, Aminophosphonates and Aminobisphosphonates with 3,5-Bis(arylidene)pirerid-4-one Framework

S.03.23

Katarzyna M. Błażewska, Ralf Haiges, Boris A. Kashemirov, Frank H. Ebetino and Charles E. McKenna*

The Absolute Stereochemistry of a Potent RabGGTase Phosphonocarboxylate (PC) Inhibitor and the Adventitious Discovery of a PC Boronate

S.03.24

Xiaoxia Liu, Matt J. Cliff, James P. Marston, Mike G. Blackburn, Yufen Zhao and Jon P. Waltho*
Monophosphorylation Selectivity of p38 α MAP Kinase by MKK6

Session S.03.25-28 (Thu 15.07.2010, 14.40-16.00, Hall A)

Chair: Frank Ebetino

S.03.25

Oleg I. Kolodiazhnyi, Evgeny V. Gryshkun, Georgiy O. Kachkovskyi, Anastasia O. Kolodiazhna, Olga O. Kolodiazhna and Sergiy Yu. Sheiko*

New Methods for the Synthesis of Phosphorus Analogue of Natural Compounds

S.03.26

Rambabu Chegondi, Paul R. Hanson, Susanthi Jayasinghe, Soma Maitra, James P. McParland, Mary Tan, Christopher D. Thomas, Phanindra K. M. Venukadasula, Joshua Waetzig and Alan Whitehead*

Phosphate Tether-Mediated Protocols for Application in Natural Product Synthesis

S.03.27

Paul-Alain Jaffrès, Aurore Fraix, Christophe Lorilleux, Mathieu Berchel, Hélène Couthon-Gourvès, Jean-Pierre Haelters, Jean-Jacques Yaouanc, Laure Deschamps, Philippe Giamarchi, Patrick Midoux, Tristan Montier and Pierre Lehn*

New Phosphoramidates for Gene Delivery

S.03.28

Charles E. McKenna, Boris A. Kashemirov, Valeriya M. Zakharova, Michaela Serpi, Ivan S. Krylov, Larryn W. Peterson and Shuting Sun*

New Biophosphorus Chemistry: from Drug Delivery to Drug Detection

Section S.04 (Hall C)

Supramolecular Chemistry, Bioorganic Chemistry and Diagnostics

Session S.04.01-04 (Thu 15.07.2010, 10.00-11.20)

Chair: Petr Hermann

S.04.01

*Sergiy O. Cherenok, Stanislav I. Miroshnichenko, Andriy B. Drapailo, Olga I. Kalchenko, Roman V. Rodik, Vyacheslav I. Boiko, Yury I. Matveev, Alexander V. Ruban and Vitaly I. Kalchenko**

Supramolecular Chemistry of Phosphorus-containing (Thia)calixarenes

S.04.02

Alexander R. Burilov, Yulia M. Sadykova, Elmira M. Kasymova, Irina R. Knyazeva, Michael A. Pudovik, Wolf D. Habicher and Oleg G. Sinyashin*

New P-Containing Linear and Macrocyclic Polyphenols

S.04.03

Andrey A. Karasik, Anna S. Balueva and Oleg G. Sinyashin*

Recent Advances in Macrocyclic Polyphosphine Chemistry

S.04.04

Olga I. Kalchenko, Sergiy O. Cherenok, Roman V. Rodik, Andriy B. Drapailo, Stanislav I. Miroshnichenko, Daria S. Ternova and Vitaly I. Kalchenko*

HPLC Study of Calix[4,6]arene Complexation with Organic Substrates

Session S.04.05-07 (Thu 15.07.2010, 11.50-12.50)

Chair: Vitaly Kalchenko

S.04.05

Elena. L. Gavrilova, Nina. I. Shatalova, Maria N. Saifutdinova, Raisa N. Tarasova, Asia A. Naumova, Irina I. Semina, Inna P. Pashina, Asia R. Mustafina and Aidar T. Gubaidullin*

Phosphorylacetic Acid's Hydrazides and Their Complexes with Calix[4]resorcines

S.04.06

Piotr Młynarz

New Aminophosphonate Receptor Functionalized by Boronic Acid – the Binding Properties Towards Catecholamine Neurotransmitters

S.04.07

Petr Hermann, Jan Kotek, Vojtěch Kubíček and Přemysl Lubal*

Influence of Phosphorus Acid Group(s) on Properties of Complexes of DOTA Analogs

Section S.05 (Hall C)

Green Side of Phosphorus Chemistry

Session S.05.01-04 (Tue 13.07.2010, 14.40-16.00)

Chair: Jean-Luc Pirat

S.05.01

György Keglevich, Alajos Grün, Erika Bálint, Nóra Zs. Kiss, Rita Kovács, István G. Molnár, Erzsébet Jablonkai, Péter Ábrányi-Balogh, Zsófia Blastik and Róza V. Tóth*

Green Chemical Tools in Organophosphorus Chemistry – Organophosphorus Tools in Green Chemistry

S.05.02

Jean-Luc Montchamp

Synthetic Organophosphorus Chemistry without Phosphorus Trichloride

Cancelled and replaced by P2.05.02:

Irina L. Odinets, Elena V. Sharova, Oleg I. Artyshein, Galina V. Myasoedova, Nadeshda P. Molochnikova and Elena A. Zakharchenko*

Novel Task Specific Ionic Liquids Bearing P-Complexing Moieties. Synthesis, Structure, Complexing Properties, and Application for Solid Phase Extractants Preparation

S.05.03

Ekaterina V. Matveeva, Anatoly E. Shipov, Natalya A. Bondarenko, Pavel V. Petrovskii and Irina L. Odinets*

A Practical and Efficient Green Synthesis of β -Aminophosphoryl Compounds via the Aza-Michael Reaction in Water

S.05.04

*Gaston Lavén, Marcin Kalek, Martina Jezowska and Jacek Stawinski**

Synthetic and Mechanistic Aspects of Benzylphosphonates Formation via a Palladium-catalyzed Cross-coupling of H-Phosphonate Diesters with Benzyl Halides

Session S.05.05-08 (Tue 13.07.2010, 16.30-17.50)

Chair: Babak Kaboudin

S.05.05

Régis Laurent, Paul Servin, Armelle Ouali, Jean-Pierre Majoral and Anne-Marie Caminade*

Phosphorus Dendrimers: Efficient Tools for “Greener” Catalyst Design

S.05.06

*Toby R. Long, Pradip K. Maity, Thiwanka Samakaroon, Alan Rolfe, Saqib Faisal, Andrew Harned, Russell Herpel and Paul R. Hanson**

Phosphorus-based Oligomers for Application in Synthesis

S.05.07

Sarah E. Norman, Marie E. Migaud and Chris Hardacre*

Phosphorus Chemistry in Ionic Liquids

S.05.08

Gabriela Adamova, Allan J. Robertson and Kenneth R. Seddon*

Phosphonium Ionic Liquids

Section S.06 (Hall D)

Spectroscopic and Theoretical Phosphorus Chemistry

Session S.06.01-04 (Thu 15.07.2010, 10.00-11.20)

Chair: Jerzy Leszczyński

S.06.01

Marek Sierka

Interplay Between Theory and Experiment in the Elucidation of Structure and Properties of Metal Complexes with Phosphorus Containing Ligands

S.06.02

Yana A. Vereshchagina, Denis V. Chachkov, Eleonora A. Ishmaeva, Aisylu Gazizova and Gulnaz Fattakhova*

Theoretical Conformational Analysis of Cyclic Organophosphorus and Organosilicon Compounds

S.06.03

E. E. Zvereva, V. V. Ermolaev, S. A. Katsyuba, V. A. Miluykov, D. B. Krivolapov, O. G. Sinyashin and R. Schmutzler*

Combined Quantum-chemical / Spectroscopic Approach in Studies of Structure and Properties of New Phosphonium Ionic Liquids

S.06.04

Alexandre I. Kourdioukov and Evgeny N. Ofitserov*

Quantum-chemical Investigation of Interaction of Alkoxy P(III) Derivatives with Trisubstituted Silylhalides

Session S.06.05-08 (Thu 15.07.2010, 11.50-13.10)

Chair: W. Andrzej Sokalski

S.06.05

Yosuke Uchiyama and Yasuhiro Mazaki*

Synthesis, Isolation and Skeletal Inversion of 5,10-Dihydrophosphanthrenes

S.06.06

Nasrin Oroujzadeh and Khodayar Gholivand*

Synthesis, Spectroscopic Study and Crystal Structures of Some Novel N-2,4-Dichlorobenzoyl Phosphoric Triamides

S.06.07

Dörte Stachel, Janka Thiele and Christiane Günther*

Water in Ultraphosphates: Investigations in the Glass Systems CuO-P₂O₅-H₂O and CoO-P₂O₅-H₂O

S.06.08

Ghenwa Bouhadir, Susanna Porce and Didier Bourissou*

Reaction of Singlet Dioxygen with Phosphine-Boranes: from Transient Phosphine Peroxides to Crystalline Peroxoboronates

Section S.07 (Hall D)

Inorganic, Bioinorganic and Coordination Phosphorus Chemistry

Session S.07.01-04 (Tue 13.07.2010, 10.00-11.20)

Chair: Manfred Scheer

S.07.01

Evamarie Hey-Hawkins, Santiago Gómez-Ruiz, Aslihan Kircali, Robert Wolf and Peter Lönnecke*

The Unusual Coordination Chemistry of Phosphorus-Rich Linear and Cyclic Oligophosphanide Anions

S.07.02

Jan J. Weigand, Kai-Oliver Feldmann, Michael H. Holthausen, Florian D. Henne, Antje K. C. Echterhoff and Stephen Schulz*

Phosphorus Cations – Syntheses and Reactivities

S.07.03

Maria Caporali, Luca Gonsalvi, Andrea Ienco, Dmitry Yakhvarov and Maurizio Peruzzini*

New Hydroxyphosphoryl Ligand, P₃POH, Derived from White Phosphorus

S.07.04

Jeanne Crassous and Régis Réau*

Synthesis and Coordination-driven Self-assembly of Azahelicene-Phosphole Molecules

Session S.07.05-08 (Tue 13.07.2010, 11.50-13.10)

Chair: Evamarie Hey-Hawkins

S.07.05

Jerzy Pikies, Rafał Grubba, Łukasz Ponikiewski, Aleksandra Wiśniewska, Agnieszka Łapczuk-Krygier and Tomasz Kruczyński*

R₂P-P(SiMe₃)Li – a Versatile Building Block for New Phosphorous Ligands

S.07.06

Anna Mondry and Rafał Janicki*

Structural and Spectroscopic Studies of Lanthanide Polyaminopolyphosphonates

S.07.07

Martin B. Smith

Caged Phosphines: Ligands with a Promising Future?

S.07.08

Daniel Tofan and Christopher C. Cummins*

Niobium-mediated Activation of P₄ and Phosphorus Transfer into Organic and Main Group Acceptors

Session S.07.09-12 (Wed 14.07.2010, 10.00-11.20)

Chair: Ulrich Zenneck

S.07.09

*Gerd von Frantzius, Lili Duan, Vitaly Nesterov, Aysel Oezbolat-Schoen, Maren Bode and Rainer Streubel**

Insights into Phosphinidenoid Complex Chemistry

S.07.10

*Roxana M. Birzoi, Daniela Lungu, Antje Riecke, Christine Goers, Rafael Guerrero Gimeno, Constantin Daniliuc, Rainer Bartsch and Wolf-W. du Mont**

Imino- and Imido-bridged Bifunctional Phosphaalkenes

S.07.11

Hiroshi Nakazawa and Kozo Fukumoto*

Fac-mer Isomerization of Mo(CO)₃(phosphite)₃ Caused by Interaction between Phosphite Oxygen and Silane Silicon

S.07.12

M. Scheer, C. Kuntz, M. Seidl and M. Stubenhofer*

Bridging Phosphinidene Complexes as Versatile Starting Materials for Novel P Containing Heterocycles and Cage Compounds

Session S.07.13-16 (Wed 14.07.2010, 11.50-13.10)

Chair: Hiroshi Nakazawa

S.07.13

*Dan A. Smith, Andrei S. Batsanov, Karinne Miqueu, Mark A. Fox, Andrew Beeby, David C. Apperley, Jean-Marc Sotiropoulos, Judith A. K. Howard and Philip W. Dyer**

N-Phosphino-pyridyl Imines: Non-innocent Phosphorus Compounds

S.07.14

Andreas Orthaber, Michael Fuchs, C. Oliver Kappe, Ferdinand Belaj and Rudolf Pietschnig*

Coordination Behavior and Reactivity of Fluoroarylphosphanes

S.07.15

Vladimir A. Kozlov, Diana V. Aleksanyan, Yulya V. Nelyubina, Konstantin A. Lyssenko, Andrei A. Vasil'ev, Pavel V. Petrovskii and Irina L. Odinets*

Thiophosphoryloxy and Thiophosphorylaminobenzene Derivatives as Novel Classes of Hybrid Pincer Ligands

S.07.16

Christian Gröger, Michael Pronold, Joachim Wachter and Manfred Zabel*

Coordination Behavior of Mixed E15/E16-Tripledecker Complexes

Session S.07.17-20 (Thu 15.07.2010, 14.40-16.00)

Chair: Anne-Marie Caminade

S.07.17

Keith B. Dillon

Recent Studies on Cyclic Phosphorus-containing Cations

S.07.18

I. A. Bezkishko, V. A. Miluykov, A. A. Zagidullin, O. N. Kataeva, O. G. Sinyashin, E. Hey-Hawkins, P. Lonneck, V. E. Kataev and B. Büchner*

The 3,4,5-Triaryl-1,2-diphosphacyclopentadienide Transition Metal Complexes: Synthesis, Structure, Magnetic Properties

S.07.19

Philippa K. Monks, Keith B. Dillon, Andrés E. Goeta, Judith A. K. Howard, Michael R. Probert and Helena J. Shepherd*

Dimers are a Girl's Best Friend: Rare Examples of PX₂-Bridged Platinum Complexes

S.07.20

Łukasz Ponikiewski and Jerzy Pikies*

Reactions of RR'P-P(SiMe₃)Li (R = ^tBu, ⁱPr, NⁱPr₂; ^tBu, ⁱPr, NⁱPr₂) with [π-C₆H₆RuCl₂]₂

Section S.09 (Hall D)

Industrially Relevant Phosphorus Compounds

Session S.09.01-04 (Tue 13.07.2010, 14.40-16.00)

Chair: Paul-Alain Jaffrès

S.09.01

Ghislain David, Claire Negrell-Guirao and Bernard Boutevin*

New Halogen Free Polymeric Flame Retardant Based on Polyphosphorinanes

S.09.02

Muriel Rakotomalala, Michael Ciesielski, Thomas Zevaco and Manfred Döring*

Synthesis of New Heterocyclic Phosphorus Compounds for Flame Retardant Applications

S.09.03

Floryan De Campo and Leo Liu*

PhosphoDiene Monomers (PDMs) a New Class of Highly Reactive and Versatile Monomers

S.09.04

Zhongdong Liu, Min Wei, Boxiang Liu, Xiaoling Lv, Pin Sun and Zesheng Zhang*

Preparation and Application of Wheat Starch Phosphate with Low Degree of Substitution

Section S.11 (Hall A)

Mini Symposium on biophosphates organized to honour 70th birthday of Prof. W. J. Stec

Session S.11.01-03 (Tue 13.07.2010, 10.00-11.30)

Chair: Jan Michalski

S.11.01

Fritz Eckstein

The World of Phosphorothioate Nucleic Acids

S.11.02

Gerald Zon

Automated Synthesis of Phosphorus-Sulfur Analogs of Nucleic Acids—25 Years on: Potential Therapeutic Agents and Proven Utility in Biotechnology

S.11.03

Karol S. Bruzik

How sulfur found its groove

Session S.11.04-06 (Tue 13.07.2010, 12.00-13.30)

Chair: Yufen Zhao

S.11.04

Jonathan P. Waltho

Investigating enzyme catalysis of phosphate transfer

S.11.05

*M. W. Bowler, M. J. Cliff, J. P. Waltho and G. M. Blackburn**

Why did Nature Select Phosphate for Its Dominant Roles in Biology?

S.11.06

Edward Darzynkiewicz, Jacek Jemielity, Joanna Kowalska, Janusz Stepinski, Joanna Zuberek, Ryszard Stolarski, Maciej Lukaszewicz, Ewa Grudzien-Nogalska, Robert E. Rhoads, Andreas Kuhn and Ugur Sahin*

Biologically and Medically Relevant Synthetic 5' mRNA Cap Dinucleotides Modified in Phosphate Bridge

Session S.11.07-09 (Tue 13.07.2010, 15.00-16.30)

Chair: Jean-Pierre Majoral

S.11.07

Marvin H. Caruthers

Synthesis and Biological Activities of New Oligonucleotide Analogs

S.11.08

Serge L. Beaucage, Cristina Ausín, Andrzej Grajkowski and Jacek Cieślak*

Assessment of Novel Thermosensitive Thiophosphate Protecting Groups in the Development of Thermolytic Oligonucleotide Prodrugs

S.11.09

*Akihiro Ohkubo, Yudai Nishino, Yasuhiro Noma, Ryuji Tamamushi, Ken-ichi Miyata, Hiroyuki Tsunoda Yuhki Kakishima, Kohji Seio and Mitsuo Sekine**

Triplex Forming Oligonucleotides Containing Thiolated Nucleosides

Session S.11.10 and S.11.11 (Tue 13.07.2010, 17.00-18.30)

Chair: Henryk Kozłowski

S.11.10

Włodzimierz Krzyżosiak

MicroRNA pathways, mechanisms and technologies

S.11.11

Charles E. McKenna, Boris A. Kashemirov, Ernestas Gaidamauskas, Debbie Crans, Thomas Upton, Brian Chamberlain, Yue Wu, Jorge Osuna, Keriann Oertell, Myron Goodman, Vinod K. Batra, Lars C. Pedersen, William A. Beard and Sam H. Wilson*

Bisphosphonates and Bisphosphonate Nucleotides: a New Generation of Unique Tools to Probe Biological Structure and Function