



12th International Conference on Pharmacy and Applied Physical Chemistry

PhandTA 12

Department of Pharmaceutical Technology
Karl-Franzens-University Graz

Humboldtstrasse 46
Graz, Austria

Sunday 6th to
Wednesday 9th of May, 2012

Welcome to PhandTA 12

The 12th International Conference on Pharmacy and Applied Physical Chemistry (PhandTA 12) is a Meeting of the European Society for Applied Physical Chemistry. For the first time it will take place in Graz, Austria.

The Conference is organized in cooperation with the Institute of Pharmaceutical Sciences, Department of Pharmaceutical Technology, University of Graz.

Conference Venue

The Conference will be held in a new building of the University of Graz, Humboldtstrasse 46, which is located in a distance of about 1.5 km from the Old Town of Graz:

Institute of Pharmaceutical Sciences
Department of Pharmaceutical Technology
Humboldtstrasse 46
A-8010 Graz

Organization and Scientific Committee

Dr. Erwin Marti, President of eurostar-science, Basel, CH
Prof. Andreas Zimmer, Graz, A
Mrs. Ursula Goetz, Graz, A
Prof. Anthony E. Beezer, London, UK
Prof. Elena Boldyreva, Novosibirsk, Russia
Prof. Ulrich Griesser, Innsbruck, A
Prof. Jean-Pierre Grolier, Aubière, F
Prof. Peter Laggner, Graz, A
Prof. Samuel Petit, Rouen, F
Prof. Joachim Seelig, Basel, CH
Prof. Nora Urbanetz, Graz, A
Prof. Emmerich Wilhelm, Wien, A

List of submitted Contributions as Lectures and Poster Presentations for the PhandTA 12

Correlation between Excess Surface Work and Heat of Sorption of Water Sorption Isotherms

Jürgen Adolphs
Porotec GmbH, 65719 Hofheim, Germany

Chiral Discrimination at the Solid State upon Dehydration: Role of released Water in Nucleation and Growth of pure Enantiomers in a Hydration Derivative
Y. Ahmarar, Y. Cartigny, Samuel Petit, Gerard Coquerel
Laboratoire Sciences et Méthodes Séparatives, Université de Rouen, Mont Saint Aignan, France

On calorimetric Analysis of Photostability
Anthony Beezer
Department of Pharmaceutics, The School of Pharmacy
University of London, London WC1N 1AX, UK

Advances in High – Throughput Screening Experimentation for Solid – State Development
Fritz Blatter
Solvias AG, CH-4303 Kaiseraugst, Switzerland

(The final decision about the classification of Contributions for Lectures or Poster Presentations will be made the latest during February 2012)

Polymorphism of Drug Products with low Molecular Weights

Elena Boldyreva
Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

The Growing World of Crystal Forms

Dario Braga
Molecular Crystal Engineering Group, Università Degli Studi di Bologna, Bologna, Italy

Understanding Disorder Aging and Surface Area Changes in milled Drug Substances

Jeffrey Brum
Particle Generation and Control, GlaxoSmithKline Pharmaceuticals UP9200,
Collegeville, PA, USA

In-Silico Estimation of second virial coefficients: Comparison of Methods Using a Simple Protein Model

Michael Brunsteiner
Research Center Pharmaceutical Engineering 8010 Graz, Austria

Energetic Heterogeneity of Pharmaceutical Materials

Daniel J. Burnett, Jiye Khoo, Majid Naderi, and Manaswini Acharya
Surface Measurement Systems Limited, Rosemont Road, Alperton, London

Polymorphic Effects in Water- Glycine System studied by DSC

Valeri Drebuschak, Elena Boldyreva, and Andrey Ogienko
Novosibirsk State University, Institute of Geology and Mineralogy, Institute of Solid State Chemistry, Russian Academy of Sciences, Novosibirsk, Russia

Dispersive Raman Spectroscopy – A versatile Tool in chemical and particle Process Development and Optimization for pharmaceutical Compounds

Martin Philipp Feth¹, Andreas Burgard¹, Lydia Helmbach², Christoph Tappertzhofen¹

¹Sanofi-Aventis Deutschland GmbH, Chemical Development, Frankfurt am Main, Germany

²Universität zu Halle-Wittenberg, Zentrum für Ingenieurwissenschaften, Verfahrenstechnik / TVT, Halle, Germany

Vapor Pressure by TGA

Samuele Giani and Ruedi Riesen
Mettler-Toledo AG, Anakytical, CH-8603 Schwerzenbach, Switzerland

Title no yet delivered

Ulrich Griesser
Institute of Pharmacy, Pharmaceutical Technology, University of Innsbruck, Austria

The use of supercritical Fluids in Polymer Technology: New experimental Techniques and selected Examples of Applications

J-P. E. Grolier
Laboratoire de Thermodynamique des Solutions et des Polymères
Université Blaise Pascal de Clermont-Ferrand, Aubière, France

Process induced Transformations (PITs) during Tablet Manufacturing: Phase Transition Analysis of Caffeine using DSC and low Frequency Micro-Raman Spectroscopy
Sébastien Hubert¹, S. Briancon¹, A. Hedoux², Y. Guinet², L. Paccou², H. Fessi¹, François Puel¹

¹Université de Lyon, F-69622, France, Université Lyon 1, Villeurbanne, CNRS, UMR5007, Laboratoire d'Automatique et de Génie des Procédés (LAGEB) CPE- Lyon, F-69100 Villeurbanne, France

²Univ. Lille Nord de France, F-59000 Lille, USTL, UMET, UMR 8207, F-59650 Villeneuve d'Ascq, France

Triboelectric Charge and Discharge Behavior of Carriers for Dry Powder Inhalates
Stefan Karner

Institut für Prozess- und Partikeltechnik, University of Graz, A-8010 Graz, Austria

Influence of Plastizicer wetting Ability on pharmaceutical Processes, especially on Dry Powder Coating

Fabian Klar
Institut für Prozess- und Partikeltechnik, University of Graz, A-8010 Graz, Austria

Structural Analysis of pharmaceutical Substances

Andrew Kutner
Pharmaceutical Research Institute, 01-793 Warsaw, Poland

X-Ray – Calorimetry and – Pycnometry – Two Novel Techniques for Physical Solid-State Analysis

Peter Laggner

Institute for Biophysics and Research for Nano-Systems, Austrian Academy of Sciences, Graz, Austria

Influence of Droplet Size on the Crystallization Behavior of aqueous Mannitol Solutions during Spray Drying

Eva Maria Littringer
Research Center Pharmaceutical Engineering GmbH, University of Graz,
A-8010 Graz, Austria

Prediction, Stability, Crystallization, and Transition of polymorphic Forms: Influenced by the Entropy Differences of the solid States?

Erwin Marti¹ and Erwin Kaisersberger²
¹APCh Marti Consulting, Basel, Switzerland
²Netzsch-Gerätebau GmbH, 95100 Selb, Germany

Troubleshooting Drug Products Failures: The Need for a Holistic Approach

Catherine McClorey
Almac Group (UK), Almac House, Craigavon BT63 5QD, UK

Can Crystal Structure Prediction guide Experimentalists to a new Polymorph of Paracetamol?

Macus Aurelius Neumann and Marc-Antoine Perrin
Avant-garde Materials Simulation Deutschland GmbH, 79100 Freiburg, Germany

Susceptibility Testing of Cells and Organisms to Drug and Agents using a TMA
Christian Ortmann

TA Instruments, 65760 Eschborn, Germany

Computed Crystal Energy Landscapes as a Complement to solid State Screening
Sarah Sally Price

Department of Chemistry, University College London, London WC1H0AJ

The Physical Chemistry behind Drug-Drug Interactions

Anna Seelig
Biozentrum, University of Basel, CH-4056 Basel, Switzerland

Protein Folding illustrated with Apolipoprotein E

Joachim Seelig
Biozentrum, University of Basel, CH-4056 Basel, Switzerland

The curious Case of Acetaldehyde Phenylhydrazone: different Melting Points, same Structure

Terry Threlfall
University of Southampton, School of Chemistry, Cambridge, UK

Interparticle Interactions in Solid Oral Dosage Forms

Nora Urbanetz
Research Center Pharmaceutical Engineering (RCPE) GmbH, Institut für Prozess- und Partikeltechnik, University of Graz, A-8010 Graz, Austria

Roflumilast – Characterisation of a reversible Single-Crystal to Single-Crystal Phase Transition at 50 °C

Martin Viertelhaus
Physicochemistry, Nycomed GmbH, Konstanz, Germany

Influence of Gas Composition in Solution on Crystal Growth Rate and Formation of fluid macroscopic Inclusions inside Organic Crystals

A. Waldschmidt, Samuel Petit, Gerard Coquerel
Laboratoire Sciences et Méthodes Séparatives, Université de Rouen, France

Aqueous Solutions: A Molecular Thermodynamics Perspective

Emmerich Wilhelm
Institute of Physical Chemistry, University of Wien, A-1090 Wien and Department of Materials Research and Physics, University of Salzburg, A-Salzburg, Austria

Modifying the Fine Particle Fraction of Dry Powder Inhalers by Carrier Surface Modifications

Sarah Zellnitz
Institut für Prozess- und Partikeltechnik, University of Graz, A-8010 Graz, Austria

Differential Scanning Fluorimetry- A potent Tool to predict Thermostability of Protein Formulations

Andreas Zimmer
Department of Pharmaceutical Technology, University of Graz, A-8010 Graz, Austria

Poster Presentations

Effects of the alpha- and gamma-Polymorphs of Glycine on the Behavior of Catalepsy prone Cats

Andrey Achkasov, Tatiana Alekhina, Olga Prokudina, Marina Ryazanova, Tatiana Ukolova, Vladimir Efimov, Arkady Markel, Elena Boldyreva, Vladimir Boldyrev

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Cytology and Genetics, and Russian Academy of Sciences, Novosibirsk, Russia

Multicomponent Crystals of Telmisartan with Saccharin: Thermoanalytical and spectroscopical Studies

Renu Chadha, Swati Bhandari

Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India

Characterization and Stability Studies of differently prepared amorphous Forms of Telmisartan

Renu Chadha, Swati Bhandari

Institute of Pharmaceutical Sciences, Panjab University, Chandigarh, India

Decreasing Particle Size helps to preserve metastable Polymorphs. A Case Study of DL- Cysteine

Vasily Minkov, Valeri Drebuschchak, Andrey Ogienko, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

"Hedvall Effect" in cryogrinding of molecular Crystals: A case study of a polymorphic Transition in Chloropropamide

Tatiana Drebuschchak, Anna Ogienko, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

Following the Products of mechanochemical Synthesis Step after Step

Ivan Tumanov, Andrey Achkasov, Elena Boldyreva, Vladimir Boldyrev

Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

New low-temperature polymorphic Transitions in Chloropropamide and Tolbutamide

Tatiana Drebuschchak, Valeri Drebuschchak, Yuri Chesalov, Alisa Ivanenko, Natalia Pankrushina, Boris Kolesov, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Geology and Mineralogy, Institute of Catalysis, Institute of Organic Chemistry, Institute of Inorganic Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

High-pressure Polymorphism of Chloropropamide

Yuri Seryotkin, Sergei Goryainov, Tatiana Drebuschchak, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Geology and Mineralogy, Institute of Catalysis, and Russian Academy of Sciences, Novosibirsk, Russia

Dynamics of Intermolecular Hydrogen Bonds in the Polymorphism of Paracetamol in Relation to Crystal Packing and conformational Transitions: a variable-temperature

polarized Raman Spectroscopy Study

Boris Kolesov, Mikhail Mikhailenko, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Inorganic Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

Monitoring selected Hydrogen bonds in Crystal Hydrates of Amino Acid Salts:

Combining variable Temperature Single- Crystal X-Ray Diffraction and polarized Raman Spectroscopy

Boris Zakharov, Boris Kolesov, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Inorganic Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

A new Method of producing monoclinic Paracetamol suitable for direct Compression

Andrey Ogienko, Elena Boldyreva, Andrey Manakov, Vladimir Boldyrev Mikhail Mikhailenko, Alexander Yunoshev, Anna Ogienko, Alexei Ancharov, Andrey Achkasov

Novosibirsk State University, Institute of Solid State Chemistry, Institute of Inorganic Chemistry, Institute of Hydrodynamics, Institute of Cytology and Genetics, and Russian Academy of Sciences, Novosibirsk, Russia

Co-Crystals of Meloxicam with Carboxylic Acids

Svetlana Myz, Nikolay Tumanov, Tatiana Shakhshneider, Elena Boldyreva

Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

Mechanochemical Preparation of Hybrid Materials of Drugs with inorganic Oxides and Polymers

Tatiana Shakhshneider

Novosibirsk State University, Institute of Solid State Chemistry, and Russian Academy of Sciences, Novosibirsk, Russia

Workshops

Instrumentation

Chairmen: Jean-Pierre Grolier, Andrew Kutner, and Peter Laggner

The Workshop Instrumentation and Physical Chemistry of Drug Substances and Drug Products will take place after Lunch on Wednesday afternoon.

Section Physical Chemistry:

Introduction: Peter Laggner

Amorphous Forms – Trying to make sense of the shapeless

Exhibition

Manufacturers of Instruments will exhibit their newest equipment and will expose new highlights along with Lectures and Poster Presentations covering instrumental Developments.

Submission of Additional Contributions

Participants are invited to submit tentative Titles for oral or poster Communications until 31st of December, 2011. Lectures and Posters should be focused on theoretical, experimental or instrumental aspects within the area of Physical Chemistry applied to the substances and products related to Live Sciences. However, the slots for Oral Communications are already rather limited.

Poster Presentations will start on Monday morning and end at Wednesday. The **Poster Panels** are suited for the format A0 (width 90, height 125 cm).

Short Communications for one of the Workshops are accepted even during the PhandTA 12, but early notices are welcomed.

Abstracts

All **Authors** (Lectures, Posters or Communications for the Workshops) are requested to submit one- or two-page Abstracts.

A **Specimen** with details for writing Abstracts will be sent to all Applicants. The Abstracts will be printed in the Workbook.

Abstracts must be sent as word document (doc) without compression. Pictures should have a resolution not more than 1MB.

Deadline for the Abstracts

The Abstracts should be sent as soon as possible, latest by Tuesday 31st of January 2012.

Registration Fees in Euros

	Fees paid till May 09, 2012	Fees paid after the Conference
Participants ¹	600	700
PhD Students and Postdocs ¹	300	350
Accompanying Persons ²	300	350

¹Includes Conference, Workshop, Workbook, all Lunches (Monday to Wednesday). Coffees, Aperitifs and Conference Dinner

²Includes Conference Dinner, Aperitifs and Ladies Program

Timetable of the PhandTA 12

Sunday, May 06, 2012	14:00 – 16:00 16:00 16:15 – 19:15 20:00	Registration and Assembly of the Board of the European Society for Applied Physical Chemistry Opening of the PhandTA 12 Oral Session Aperitif
Monday, May 07, 2012	09:00 – 18:00 18:00 – 20:00	Oral and Poster Sessions Opening of the Exhibition Exhibition of Instruments and Poster Session Refreshments
Tuesday, May 08, 2012	09:00 – 18:00 20:00	Oral and Poster Sessions, Exhibition David J.W. Grant Memorial Lecture Aperitif and Conference Dinner
Wednesday, May 09, 2012	08:00 – 12:00 12:00 – 13:00 12:15 – 13:00 13:00 – 16:00 16:00 16:10 – 17:00	Oral session Lunch GA part 1 of the European Society for Applied Physical Chemistry Workshops Closing of PhandTA 12 GA part 2 future of eurostar-science

Accommodation

All Participants may lodge in Graz at any hotel of their choice and according to their own requests. Information about the hotels in Graz and booking is available at:

Graz Tourismus
Herrengasse 16
A-8010 Graz
Tel.: +43/316 8075-0
e-mail: info@graztourismus.at
homepage: www.graztourismus.at

Please, book your hotel room as soon as possible!

For further information, please, see the Conference Website:

www.eurostar-science.org

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science

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Attachments:

- Registration Form
- Specimen for the Abstracts