Content

Oral Communications 1

(O.01) *Formic Acid (FA)/ Water Phase Diagram by Means of Temperature-Resolved Second Harmonic Generation and FA Phase Transition: A Reinvestigation* 1
S. Clevers, L. Yuan, V. Dupray, G. Coquerel

(O.02) *Thermal deformations of the crystal structures of L-valine, L-isoleucine and discrete compound V_2I* 7
A. Isakov, E. Kotelnikova, S. Bocharov, A. Zolotarev Jr, H. Lorenz

(O.03) *Influence of oiling out on the crystallization of L-menthol in water* 13
I. de Albuquerque and Marco Mazzotti

(O.04) *Stereoselective crystallization of enantiomers as a basis for chiral APIs production* 14
A. Bredikhin

(O.05) *The mechanism by which additives improve the preferential crystallization of L-asparagine monohydrate* 15
P. Kongsamai, A. Maneedaeng, C. Flood, J. H. ter Horst, A. E. Flood

(O.06) *Phase behavior of a chiral agrochemical as basis for crystallization based separation* 21
A.-K. Kort, H. Lorenz, A. Seidel-Morgenstern

(O.07) *Temperature-cycling-induced Deracemization of a Racemic Compound via its Conglomerate Salt* 26
W. Li, H. J.M. Kramer, J.H. ter Horst

(O.08) *Evaluating Crystal Agglomeration of an API at Production Scale* 27
S. Janbon, L. Ferris, E. Gavi, A. Parsons, G. Reynolds

(O.09) *Design of Dissolvable Milk Containers for Convenient Handling* 34
M. Wellner, J. Ulrich

(O.10) *Effect of additive on glycine crystal habit by impinging jet crystallization* 40
T. Tari, P. Szabó-Révész, Z. Aigner

(O.11) *Control of Polymorphic Phase Transformations in Polymer-based Extrusion Processes for Continuous Pharmaceutical Formulation* 46
J. R. H. Espinelli V. Lopéz-Mejías, T. Stelzer

(O.12) *Determination of evaporation rates in vacuum DTB crystallization of glycine* 52
J. Puranen, M. Louhi-Kultanen

(O.13) *Highly concentrated cooling crystallization of L-glutamic acid and lactose, studied by Photon Density Wave spectroscopy* 58
R. Hass, O. Reich

(O.14) *Study on the crystallization of Sodium 2- Keto-L-gulonate Monohydrate as example for neutral salt recovery of bio acids* 59
H. Plate, J. van Esch, C. L. Calvo, J.-C. de Troostembergh, R. Scholz

Dieses Werk ist copyrightgeschützt und darf in keiner Form vervielfältigt werden noch an Dritte weitergegeben werden.
Es gilt nur für den persönlichen Gebrauch.

(O.15) *Experimental Evaluation and Mathematical Modelling of a Periodic Flow Crystallization Process* 65
K. Powell, Q. Su, C. Rielly, Z. Nagy

(O.16) *MULTIBLOK™, a new industrial crystallizer design* 73
H. A. Jansen , C. Pudack

(O.17) *Ultrasonic Reactive Crystallization of Manganese Carbonate: Reactor Design and Scale up* 76
B. Gielen, J. Jordens, L.C.J. Thomassen, T. Van Gerven, L. Braeken

(O.18) *Feasibility Study of Calcium Phosphate Precipitation under Specific Conditions in Terms of Development Cascade Crystallization Technology* 83
L. Vasenko, H.Qu

(O.19) *Wastewater treatment by continuous crystallization* 89
H.-J. Jang, K.-J. Kim

(O.20) *Synthesis of Pt Nanoparticles by Reductive Crystallization using Polyethyleneimine* 94
H. Nagao, M. Ichiji, I. Hirasawa

Poster Presentations 100

(P.01) *A Contribution to the Solution Thermodynamics of Chiral Lactide* 100
H. Buchholz, A. Seidel-Morgenstern, H. Lorenz

(P.02) *On the formation of phenylpiracetam solid solutions: thermodynamic and structural considerations* 106
T. Rekis, A. Berzins, L. Orola, A. Actins, A. Seidel-Morgenstern, H. Lorenz

(P.03) *Formation of Liquid Inclusions in N-Methyl Urea Single Crystals* 112
E. Bobo, G. Coquerel

(P.04) *1, 3-Dimethylurea Hydration Process Investigation by Temperature-Resolved Second Harmonic Generation* 118
L. N. Yuan, S. Clevers, N. Couvrat, Y. Cartigny, V. Dupray, G. Coquerel

(P.05) *Basic studies on calcium propionate crystallization* 125
T. Li, H. Lorenz, A. Seidel-Morgenstern

(P.06) *Monitoring Phase Transformation of Carbamazepine-Nicotinamide Cocrystallization* 126
T. Suwannikom, A. Flood

(P.07) *Shape change and growth behavior of monosodium urate monohydrate in model of gout* 132
C. Ozono, I. Hirasawa, F. Kohori

(P.08) *New Techniques to Determine Growth and Dissolution Kinetics of Protein Crystals* 138
R. Oswald, J. Ulrich

(P.09) *Comparing the Effects of Mesoporous Seed with Other Crystallisation Parameters in Batch Crystallisation of Hen Egg White Lysozyme* 144
K. K. C. Chum, T. C. T. Ho, D. R. Williams, J. Y. Y. Heng

 Dieses Werk ist copyrightgeschützt und darf in keiner Form vervielfältigt werden noch an Dritte weitergegeben werden.
Es gilt nur für den persönlichen Gebrauch.

(P.10) *Crystal Nucleation within the Metastable Zone* 145
M.L. Briuglia, J. H. ter Horst, J. Sefcik

(P.11) *On the mechanism of ultrasound enhanced nucleation: the effect of the compound density and cavitation bubble type* 146
J. Jordens, B. Gielen, L. Braeken, T. Van Gerven

(P.12) *Influence of the droplet volume polydispersity on primary nucleation time probability* 147
E.C. dos Santos, G.M. Maggioni, A. Ladosz, P. Rudolf von Rohr, M. Mazzotti

(P.13) *First step towards a novel cascade design of continuous MSMPR crystallizers – Crystal growth rate measurements* 148
M. Ostermann, M. Termühlen, G. Schembecker, K. Wohlgemuth

(P.14) *Growth Kinetics of Calcium Sulfate Dihydrate in the Presence of Tartaric Acid* 149
S. Polat, S. Titiz-Sargut, P. Sayan

(P.15) *Effects of Carboxylic Acids as Additives on Crystallization of Calcium Sulfate Dihydrate* 155
S. Polat, S. Titiz-Sargut, P. Sayan

(P.16) *Influence of dissolved gases on solution mediated phase transformation: Case study "glycine"* 161
J. Huang, Q. Yin, J. Ulrich

(P.17) *Orientation of Primary Particles in Potash Alum Aggregates* 167
T. Kovačević, V. Wiedmeyer, J. Schock, F. Pfeiffer, A. Voigt, K. Sundmacher, H. Briesen

(P.18) *Combination of Preferential Crystallization and Racemization – First Results* 173
T. Carneiro, K. Bettenbrock, H. Lorenz, A. Seidel-Morgenstern

(P.19) *The effective direct resolution procedure for chiral drug bevantolol hydrochloride* 179
Z. Bredikhina, O. Antonovich, D. Zakharychev, A. Bredikhin

(P.20) *Properties of the Salt of S-Napoxen and N-n-Octyl D-glucamine* 185
K. Intaraboonrod, K. Suwannasang, A.E. Flood

(P.21) *Resolution of Biodegradable Raw Material DL-lactic acid via Diastereomeric salts formation with (S)-1-phenylethylamine* 189
T. Patirupanon, K. Suwannasang, A.E. Flood

(P.22) *Purification of Herbal Extracts on the Example of Curcumin* 195
E. Horosanskaia, A. Seidel-Morgenstern, H. Lorenz

(P.23) *Purification and crystallization of DTPMP* 201
A. Winkler, C. Rudolph, W. Voigt

(P.24) *Purification of polycyclic aromatic hydrocarbons by co-crystallization* 202
A. Burel, S. J. T. Brugman, N. Couvrat, Y. Cartigny, S. Tisse, P. Cardinael, G. Coquerel

(P.25) *Dynamic layer crystallization of high-viscous melts – Case study glycerol-water* 207
F. J. Eisenbart, J. Ulrich

Dieses Werk ist copyrightgeschützt und darf in keiner Form vervielfältigt werden noch an Dritte weitergegeben werden. Es gilt nur für den persönlichen Gebrauch.

(P.26) *Continuous Seeding Concept for a Continuous Tubular Cooling Crystallizer* 213
L. Hohmann, M. Matuschek, N. Kockmann

(P.27) *Continuous Crystallization of Enantiopure Crystals through Secondary Nucleation* 220
R. R. E. Steendam, J. H. ter Horst

(P.28) *Liquid-filled Xylitol Candies – An Application of In situ Encapsulation* 226
A. Hartwig, J. Ulrich

(P.29) *The In-situ Coating Process applied on Ibuprofen Tablets* 232
F. Mameri, A. Hartwig, O. Koutchoukali, J. Ulrich

(P.30) *Analysis of Hydrocolloids in Crystalline Material* 238
J. Herfurth, J. Ulrich

(P.31) *Generation of Emulsion Drops and Their Crystallization in a Direct Contact Cooling System* 245
J. Iqbal, Z. Ali, M. Hussain, J. Ulrich

(P.32) *Refining the parameters of spherical crystallization methods* 246
O. Gyulai, P. Révész, Z. Aigner

(P.33) *Approaches to Growth of Large Mixed ADP-KDP Crystals and Bulk Distribution of Compounds* 252
S.N. Bocharov, L.Yu. Kryuchkova, S.O. Saveliev

(P.34) *Crystal Size Control of HNIW in Drowning out Crystallization* 258
C.-H. Lim, K.-J. Kim

(P.35) *Photocatalytic Activity under Visible Light of Synthetic N-doped TiO2 / Reduced Graphene Oxide Composites* 264
J. Chen, X. Wang, Y. Li, N. Zang, M. Su, J. Han

(P.36) *Crystallization of struvite from wastewater: effect of P/N molar ratio on the nucleation behavior* 270
Y. Liu, H. Qu

(P.37) *Continuous Separation of Lignin Particles from Ethanol-Water Pulping Liquors* 276
P. Schulze, A. Seidel-Morgenstern, H. Lorenz

(P.38) *Preventing technology of Zirconium Molybdate Hydrate adhesion by addition of Molybdenum trioxide crystals* 277
D. Ito, M. Takeuchi, T. Koizumi, I. Hirasawa

(P.39) *Particle Engineering of an API for Improved Powder-Flow Properties* 282
M. Sowa, A. Klapwijk, M. Ostendorf, W. Beckmann

(P.40) *Antisolvent Crystallization of Glycine for Miniaturization* 289
M. Maiko, I. Hirasawa

(P.41) *Crystal Product Design: From Crystal Formation to Its Final Solid Form* 295
K. Wohlgemuth, L.-M. Terdenge, G. Schembecker

(P.42) *Sonocrystallization of L-asparagine monohydrate* 296
S. Bhoi, D. Sarkar

(P.43) *Combined cooling and antisolvent crystallization of L-asparagine monohydrate* 302
M. Lenka, D. Sarkar

 Dieses Werk ist copyrightgeschützt und darf in keiner Form vervielfältigt werden noch an Dritte weitergegeben werden.
Es gilt nur für den persönlichen Gebrauch.

(P.44) *Solvent Effect on Polymorphic Crystallization of L-Histidine* 308
L. Wantha, N. Punmalee, V. Sawaddiphol, A. Flood

(P.45) *Polymorph Control of L-Arg HCl on Antisolvent Crystallization by Ultrasonic Irradiation* 315
Y. Ike, I. Hirasawa

(P.46) *Influence of the Composition of Water/Methanol Mixtures and Temperature on the Crystallization Process of Sodium Dehydroacetate* 321
X. Zhang, Q. Yin, H. Hao

(P.47) *Model of Chiral Symmetry Breaking Induced by Continuous Temperature Cycles* 322
R. Uchin, K. Suwannasang, A.E. Flood

(P.48) *Startup procedures for designing an efficient counter current crystallization process* 328
S. Münzberg, H. Lorenz, A. Seidel-Morgenstern

(P.49) *Calculation of nucleation and growth rate parameters for organic crystal* 329
R. Umeda, T. Matsumura, I. Hirasawa

(P.50) *Control of MSMPR crystallization processes* 335
R. Geyyer, R. Dürr, E. Temmel, T. Li, H. Lorenz, S. Palis, A. Seidel-Morgenstern, A. Kienle

(P.51) *Time driven n-monte-carlo simulation an alternative to crystallization population balances* 342
T. Maßmann, D. Lohse, M. Schneider, A. Jupke

(P.52) *A Path Planning Methodology for the Size and Shape Modification of Single Crystals via Temperature Cycling* 349
S. Bötschi, D. R. Ochsenbein, M. Morari, M. Mazzotti

(P.53) *Experimental investigations of fluid dynamics* 351
E. Temmel, A. Bartz, K. Kerst, G. Janiga, H. Lorenz, A. Seidel-Morgenstern

(P.54) *CFD modelling of barium sulfate precipitation in a Y-mixer* 358
P. M. Orlewski, M. Mazzotti

(P.55) *Modelling, Validation and Optimization of a Lab and Bench Scale Batch Crystallization Process* 359
N.A. Mitchell, S.K. Bermingham, H.S. Mumtaz

(P.56) *Using Modelling to Improve Filtration through PSD Span Reduction* 360
N.A. Mitchell, S.K. Bermingham, H.S. Mumtaz

(P.57) *Crystallization and monitoring via senor technique: an engineering development way* 361
B. Karger, A. Alles

Author Index 363

Supporter Pages 366

Dieses Werk ist copyrightgeschützt und darf in keiner Form vervielfältigt werden noch an Dritte weitergegeben werden.
Es gilt nur für den persönlichen Gebrauch.