

# VERÖFFENTLICHUNGEN

## BEGUTACHTETE BEITRÄGE IN ZEITSCHRIFTEN UND BÜCHERN

- [1] Stühle S., Wendt D., Hou G., Wendt H., Thielmann M., Jakob H. Kowalczyk W. 2011. Fluid Dynamic Investigation of the ATS 3F Enable Sutureless Heart Valve, *Innovations Technology and Techniques in Cardiothoracic and Vascular Surgery*, 6 37-44
- [2] Stuehle S., Wendt D., Jakob H., Kowalczyk W. 2011. Numerical simulation of hemodynamics in the ascending aorta induced by different aortic cannulas, *Minimally Invasive Therapy & Allied Technologies*, 20 125–131
- [3] Wendt D., Stühle S., Hou G., Thielmann M., Tsagakis K., Wendt H., Jakob H., Kowalczyk W. 2011. Development an in-vitro characterization of a new artificial flow channel, *Artificial Organs*, 35 59-64
- [4] Stühle S., Wendt D., Hou G., Wendt H., Schlamann M., Thielmann M., Jakob H., Kowalczyk W. 2011. In-vitro investigation of the hemodynamics of the Edwards Sapien™ Transcatheter Heart Valve, *Journal of Heart Valve Disease*, 20 53-63
- [5] Hou G., Tsagakis K., Wendt D., Stuehle S., Jakob H., Kowalczyk W. 2010. Analysis of red blood cells distribution in the aorta with dissections, Abstract, *Minimally Invasive Therapy & Allied Technologies*, 19 20
- [6] Wendt D., Stuehle S., Stühle T., Hou G., Wendt H., Thielmann M, Jakob H., Kowalczyk W. 2010. Evaluation of leaflet kinematics of bioprosthetic heart valves via high-speed imaging, Abstract, *Minimally Invasive Therapy & Allied Technologies*, 19 32-33
- [7] Tsagakis K., Kamler M., Kuehl H., Kowalczyk W., Tossios P., Thielmann M., Osswald B., Massoudy P., Buck T., Eggebrecht H., Jakob H.G. 2009. Avoidance of proximal endoleakage using a hybrid stentgraft in aortic arch replacement and descending aorta stenting, *The Annals of Thoracic Surgery*, 88 773-779
- [8] Saha F.J., Kowalczyk W., Dobos G.J. 2009. A gait analysis pilot study of back pain patients before and after a multimodal pain therapy. Abstract, *European Journal of Integrative Medicine*, 1 255
- [9] Zima-Kulisiewicz B.E., Kowalczyk W., Delgado A. 2009. Experimental and theoretical approach for analysis of a flow induced by microorganisms existing on a surface of Granular Activated Sludge, *Proceedings of the IUTAM Symposium on Advances in Micro- and Nanofluidics Dresden, Germany, September 6-8, 2007*, Eds. Ellero, M.; Hu, X.; Fröhlich, J.; Adams, N., IUTAM Bookseries, Vol. 15, Springer
- [10] Mathmann K., Kowalczyk W., Delgado A. 2009. Development of a hybrid model predicting the mouthfeel of yogurt, *Journal of Texture Studies*, 40 16-35
- [11] Kowalczyk W., Tsagakis K., Wendt D., von Sobbe S., Najafi A., Kipfmüller B., Jakob H. 2008. Experimental and numerical investigation of a fluid flow in a model ascending aorta with dissection, Abstract, *Minimally Invasive Therapy & Allied Technologies*, 17 229-230
- [12] Delgado A., Rauh C., Kowalczyk W., Baars A. 2008. Review of modeling and simulation of high pressure treatment of materials of biological origin, *Trends in Food Science & Technology*, 19 329-336
- [13] Kowalczyk W., Cuypers R., Tändl M., Kecskeméthy A. 2008. Reduction of skin movement artifacts induced during biomechanical human motion analysis, Abstract, *Journal of Biomechanics* 41, Supplement 1, 2008, S500
- [14] Kondratieva P., Georgii J., Westermann R., Petermeier H., Kowalczyk W., Delgado A. 2008. A real-time model-based approach for the reconstruction of fluid flows induced by microorganisms, *Experiments in Fluids*, 45 203-222

- [15] Zima-Kulisiewicz B.E., Diez L., Kowalczyk W., Hartmann C., Delgado A. 2008. Biofluid mechanical investigations in Sequencing Batch Reactor (SBR), *Chemical Engineering Science*, 63 599-608
- [16] Delgado A., Petermeier H., Kowalczyk W. 2007. *Micro-PIV in Life Science, Particle Image Velocimetry*, 2nd Edition, Ed.: M. Raffel, C. Willert, S. Wereley, J. Kompenhans, Springer-Verlag Berlin and Heidelberg GmbH & Co. K
- [17] Kowalczyk W., Delgado A. 2007. Simulation of fluid flow induced by three types of fin-like motion, *Journal of Bionic Engineering*, 4 165-176
- [18] Mathmann M., Kowalczyk W., Delgado A. 2007. Fluid flow in the mouth as a measurable aspect of drinkability, *Brewing Science*, July/August 2007, 60 90-95
- [19] Delgado A., Kowalczyk W., Baars A., Breuer M., Ertunc Ö. 2007. Partikuläre Systeme in der Mikrofluidik, *Chemie Ingenieur Technik - CIT*, 79 9 1382
- [20] Kowalczyk W., Zima B.E., Delgado A. 2007. A biological seeding particle approach for  $\mu$ -PIV measurements of a fluid flow provoked by microorganisms, *Experiments in Fluids*, 43 147-150
- [21] Kulisiewicz L., Kowalczyk W., Baars A., Delgado A. 2007. Visualization of pressure-shift freezing and thawing of concentrated aqueous sucrose solutions, *High Pressure Research*, 27 (2) 291-297
- [22] Kowalczyk W., Delgado A. 2007. Dimensional analysis of thermo-fluid-dynamics of high hydrostatic pressure processes with phase transition, *International Journal of Heat and Mass Transfer*, 50 3007-3018
- [23] Díez L., Zima B.E., Kowalczyk W., Delgado A. 2007. Investigation of multiphase flow in Sequencing Batch Reactor (SBR) by means of hybrid methods, *Chemical Engineering Science*, 62 1803-1813
- [24] Kowalczyk W., Delgado A. 2007. Numerical simulation of phase change at high hydrostatic pressure under variable-gravity environment, *Numerical Heat Transfer Part A*, 51 (8) 735 – 751
- [25] Delgado A., Baars A., Kowalczyk W., Benning R., Kitsubun P. 2007. Towards adaptive strategies for high pressure bioprocesses, *High Pressure Research*, 27 (1) 7-16
- [26] Kowalczyk W., Delgado A. 2007. On convection phenomena during high pressure treatment of liquid media, *High Pressure Research*, 27 (1) 85-92
- [27] Petermeier H., Kowalczyk W., Delgado A., Denz C., Holtmann F. 2007. Detection of microorganismic flows by linear and nonlinear optical methods and automatic correction of erroneous images artefacts and moving boundaries in image generating methods by a neuronumerical hybrid implementing the Taylor's hypothesis as a priori knowledge, *Experiments in Fluids*, 42 611-623
- [28] Mathmann K., Kowalczyk W., Petermeier H., Eberhard M., Baars A., Delgado A. 2007. A numerical approach revealing the impact of rheological properties on mouthfeel caused by food, *International Journal of Food Science and Technology*, 42 739-745
- [29] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2007. Sequencing Batch Reactor (SBR) as optimal method for production of Granular Activated Sludge (GAS) - fluid dynamic investigations, *Water Science and Technology*, 55 (8-9) 151-158
- [30] Kowalczyk W., Delgado A. 2006. Investigation of oscillatory and undulatory fin-like motion by means of numerical simulation, *Abstract, Journal of Biomechanics*, Vol. 39, Supplement 1, 2006, S629
- [31] Kowalczyk W., Hartmann C., Luscher C., Pohl M., Delgado A., Knorr D. 2005. Determination of thermophysical properties of foods under high hydrostatic pressure in combined experimental and theoretical approach, *Innovative Food Science and Emerging Technologies*, 6 (3) 318-326
- [32] Kowalczyk W. 2004. *Numerische Simulation von Fest-Flüssig-Phasenübergängen bei der Hochdruckbehandlung*, Dissertation, Technische Universität München
- [33] Kowalczyk W., Hartmann C., Delgado A. 2004. Modelling and numerical simulation of convection driven high pressure induced phase changes, *International Journal of Heat and Mass Transfer* 47 (5) 1079-1089

- [34] Kowalczyk W., Hartmann C., Delgado A. 2003. Modelling and numerical simulation of pressure induced phase changes of a fluid food system, *Advances in High Pressure Bioscience and Biotechnology II*, Dortmund, Ed.: R. Winter, Springer Verlag Berlin Heidelberg, 465-469
- [35] Diakun J., Kowalczyk W. 2001. Ograniczenia w zastosowaniu kadzi wirowej do klarowania cieczy, (Restrictions in the use of a cyclong vat for liquid clarification), *Inżynieria i Aparatura Chemiczna (Chemical Engineering and Apparatus)* 2 24-27

## KONFERENZBEITRÄGE (PROCEEDINGS)

- [1] Hou G., Tsagakakis K., Wendt D., Stühle S., Jakob H., Kowalczyk W. 2010. Three-phase numerical simulation of blood flow in the ascending aorta with dissection, Proceedings of the 5th European Conference on Computational Flow Dynamics ECCOMAS CFD 2010, ID 01331, Ed.: J.C.F. Pereira, A. Sequeira and J.M.C. Pereira, ISBN: 978-989-96778-1-4, Lissabon, Portugal
- [2] Mansour H., Kowalczyk W. 2010. Numerical simulation of shear and normal forces in standard and shear flow sequencing batch reactor (SF-SBR), Proceedings in Applied Mathematics and Mechanics (PAMM) 10, 445-446
- [3] Hou G., Wendt D., Stühle S., Jakob H., Kowalczyk W. 2009. Modeling and numerical simulation of fluid flow induced by the sutureless 3F-Enable aortic valve, Proceedings in Applied Mathematics and Mechanics (PAMM) 9, 169-170
- [4] Kowalczyk W. 2008. Potential applications of hybrid systems in biomechanics. Proceedings of the 1st Conference on Interdisciplinary Applications of Kinematics, Lima, Peru
- [5] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2007. Optical in-situ techniques for investigations of a multiphase flow in Sequencing Batch Reactor, Fachtagung Lasermethoden in der Strömungsmesstechnik (GALA 2007), Rostock, Deutschland
- [6] Biwanski T., Baars A., Kowalczyk W., Delgado A. 2007. Flow Structure in a Technical Scale Reactor with an Internal Reboiler, Proceedings in Applied Mathematics and Mechanics (PAMM) 6, 467-468
- [7] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2007. Experimental investigations of multiphase flow in a Sequencing Batch Reactor (SBR), Proceedings of the 6-th International Conference on Multiphase Flow ICMF 2007, S7\_Mon\_B\_4, 1-10
- [8] Kowalczyk W., Delgado A. 2007. Influence of Low-g Conditions on Convection and Phase Transitions in a Vessel at High Hydrostatic Pressure, High Pressure Bioscience and Biotechnology, Proceedings of the 4th International Conference on High Pressure Bioscience and Biotechnology, Vol. 1, No. 1, 180-185
- [9] Mathmann M., Kowalczyk W., Delgado A. 2007. A novel hybrid approach of detecting measurable coherences between the fluid flow of beer in the mouth and evoked sensory sensations, 31. European Brewery Convention (EBC), Venedig, Italien
- [10] Delgado A., Baars A., Rauh C., Kitsubun P., Benning R., Kowalczyk W. 2007. System theoretical considerations of high pressure treatment of biotechnological substances, High Pressure Bioscience and Biotechnology, Proceedings of the 4th International Conference on High Pressure Bioscience and Biotechnology, Vol. 1, No. 1, 198-204
- [11] Zima B.E., Kowalczyk W., Delgado A. 2006. Visualization of multiphase flow in Sequencing Batch Reactor (SBR) by Particle Image Velocimetry (PIV) and Particle Tracking Velocimetry (PTV), Lasermethoden in der Strömungsmesstechnik (GALA 2006), Physikalisch-Technische Bundesanstalt Braunschweig, Hrsg.: D. Dopheide, H. Müller, V. Strunck, B. Ruck, A. Leder, ISBN 3-9805613-3-X, Braunschweig, Deutschland
- [12] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2006. Sequencing Batch Reactor (SBR) as optimal method for production of Granular Activated Sludge (GAS) - fluid dynamic investigations (rev), Conference Biofilm Systems VI, Amsterdam, Niederlande
- [13] Kowalczyk W., Baars A., Delgado A. 2006. Heat and momentum transfer during phase change of water under high hydrostatic pressure in numerical and experimental approach (rev), Annals of the Assembly for International Heat Transfer 13, 13th International Heat Transfer Conferences (IHTC-13), ISBN 1-56700-225-0 / CD 1-56700-226-9, Sydney, Australien
- [14] Kowalczyk W., Delgado A. 2006. Numerical and experimental investigations of high pressure processes containing phase change and their dimensional analysis,

Proceedings of the 3rd International Meeting on High Pressure Chemical Engineering, Erlangen, Deutschland

- [15] Mathmann M., Kowalczyk W., Petermeier H., Eberhard M., Baars A., Delgado A. 2006. The impact of rheological properties on mouth feeling caused by food, Proceedings of the 4th International Symposium on Food Rheology and Structure (ISFRS 2006), Zürich, Schweiz
- [16] Kowalczyk W., Hartmann C., Delgado A. 2005. Numerical simulation of high pressure supported water-ice phase transition (rev), Paper No KW1, Proceedings of the Fourth International Conference on Heat Transfer, Fluid Dynamics and Thermodynamics (HEFAT 2005), Editors: JP Meyer and AG Malan, ISBN 1-86854-624-1, Cairo Egypt
- [17] Zima B. E., Kowalczyk W., Hartmann Ch., Delgado A. 2005. Influence of velocity distribution in the multiphase flow on the building of aerobic granules in Sequencing Batch Reactor (SBR), Proceedings in Applied Mathematics and Mechanics (PAMM) 5, 603-604
- [18] Zima B. E., Diez, L., Kowalczyk W., Hartmann Ch., Delgado A. 2005. Biologische Abwasserreinigung mittels Granula in einem Sequencing Batch Reaktor (SBR) – eine fluidmechanische Betrachtungsweise, Bremer Colloquium Produktionsintegrierte Wasser-/Abwassertechnik 2005 Innovative Verfahren zur industriellen Wasseraufbereitung, IUW und GVC/DECHEMA FG „SuPER“, C59-C69
- [19] Biwanski T., Baars A., Kowalczyk W., Delgado A. 2005. Investigation of the flow in an industrial reactor with internal evaporator (rev), International Symposium Research-Education-Technology, Gdańsk, Polen, 35-42
- [20] Biwanski, T., Baars A., Kowalczyk W., Delgado A., Schmidt, Th., Bühler, Th. 2005. The subject-wort boiling system of low expenditure and high benefit, Proceedings of the 30th International EBC-Congress 2005, Prag, Tschechien
- [21] Kowalczyk W., Hartmann C., Delgado A. 2004. Influence of convection on the high pressure induced phase changes in a liquid food (rev), 4th European Congress on Computational Methods in Applied Sciences and Engineering (ÉCCOMAS 2004), Jyväskylä, Finland, Ed.: Neittaanmäki, T. Rossi, K. Majava, and O. Pironneau, Ass.Ed.: V. Capasso and W. Jäger, Proceedings, Vol. I, 1-10
- [22] Kowalczyk W., Hartmann C., Delgado A. 2003. Freezing and thawing at the high hydrostatic pressure conditions – modelling and numerical simulation, Gesellschaft für Angewandte Mathematik und Mechanik (GAMM), Proceedings in Applied Mathematics and Mechanics (PAMM) 3, 388-389
- [23] Kowalczyk W., Diakun J. 2000. Wpływ koncentracji zawiesiny na proces rozdziałania w kadzi wirowo-osadowej (The possibilities of whirlpool's applications to clarification of liquid in food industry) (rev), IX Konferencja Naukowo-Techniczna „Budowa i eksploatacja maszyn przemysłu spożywczego BEMS 2000 (IX Scientific-Technical Conference Construction and Exploitation of Food Processing Machinery), Politechnika Opolska, Zeszyty Naukowe, Mechanika Nr 256/2000, z. 61, 181-188
- [24] Diakun J., Kowalczyk W. 1998. Badanie podatności chmielu na rozdrabnianie i granulację (Investigation of hops responsiveness to comminution and granulation) (rev), VIII Konferencja Naukowo-Techniczna Budowa i Eksploatacja Maszyn Przemysłu Spożywczego (VIII Scientific-Technical Conference Construction and Exploitation of Food Processing Machinery), Politechnika Białostocka, Materiały Konferencyjne, 75-81
- [25] Diakun J., Kowalczyk W., Maceluch J. 1997. Badanie możliwości rozróżnienia piwa i wody mieszających się przepływie (Investigation of possibility of differentiation of water and beer mixing during flow), I Ogólnopolska Konferencja Automatyka w Rolnictwie i Przetwórstwie Spożywczym Mielno '97, (I National Conference Automation in Agriculture and Food Industry Mielno '97), Politechnika Koszalińska, Zeszyty Naukowe Wydziału Mechanicznego Nr 21, 23-32

## VORTRÄGE UND POSTER

- [1] Landgraeber S., Güth S., Quitmann H., Raab D., Kowalczyk W., Kecskeméthy A. 2012. An analysis of gait parameters after total hip arthroplasty - A comparative study of the minimally invasive anterolateral approach and the conventional lateral approach, AAOS 2012 American Academy of Orthopedic Surgeons Annual Meeting, San Francisco, USA, 7.-11.02.2012
- [2] Stuehle S. , Wendt D., Hou G., Wendt H., Thielmann M, Jakob H., Kowalczyk W. 2011. Power Poster (3. Posterpreis): PIV investigation of sutureless heart valve prostheses – ATS 3F Enable, 7. Jahrestagung der Deutschen Gesellschaft für Biomechanik (DGfB), Murnau, Deutschland, 19.-21.05.2011
- [3] Landgraeber S., Güth S., Quitmann H., Raab D., Kowalczyk W., Kecskeméthy A., Lör F. 2011. Vortrag: An analysis of gait parameters after total hip arthroplasty - A comparative study of minimally invasive anterolateral approach and conventional lateral approach, EUROMECH Colloquium 511 on Biomechanics of Human Motion, Ponta Delgada, Azores, Portugal, 9.-12.03.2011
- [4] Hoth J., Kowalczyk W. 2011. Vortrag: Investigation of postural control and stability in adults, Equation Chapter 1 Section 1EUROMECH Colloquium 511 on Biomechanics of Human Motion, Ponta Delgada, Azores, Portugal, 9.-12.03.2011
- [5] Kowalczyk W. 2010. Vortrag: Hybride Systeme zur Modellierung und Simulation biomechanischer Fragestellungen, Symposium an der Orthopädischen Universitätsklinik Essen, Essen, Deutschland, 8.12.2010
- [6] Hou G., Tzagakis K., Wendt D., Stuehle S., Jakob H., Kowalczyk W. 2010. Vortrag: Modeling and simulation of hemodynamics in the aorta with dissection, 3rd GAMM Seminar on Continuum Biomechanics, Freudenstadt-Lauterbad, Deutschland, 24.-26.11.2010
- [7] Hou G., Tzagakis K., Wendt D., Stuehle S., Jakob H., Kowalczyk W. 2010. Vortrag: Analysis of red blood cells distribution in the aorta with dissections, 22th International Conference of the Society for Medical Innovation and Technology (SMIT 2010), Trondheim, Norwegen, 2.-4.09.2010
- [8] Stuehle S., Wendt D., Stühle T., Hou G., Wendt H., Thielmann M, Jakob H., Kowalczyk W. 2010. Vortrag: Evaluation of leaflet kinematics of bioprosthetic heart valves via high-speed imaging, 22th International Conference of the Society for Medical Innovation and Technology (SMIT 2010), Trondheim, Norwegen, 2.-4.09.2010
- [9] Hou G., Tzagakis K., Wendt D., Stühle S., Jakob H., Kowalczyk W. 2010. Vortrag: Simulation of multiphase blood flow in the aorta with dissection, 9th World Congress on Computational Mechanics and 4th Asian Pacific Congress on Computational Mechanics, Sydney, Australien, 19.-23.07.2010
- [10] Hou G., Tzagakis K., Wendt D., Stühle S., Jakob H., Kowalczyk W. 2010. Vortrag: Three-phase numerical simulation of blood flow in the ascending aorta with dissection, 5th European Conference on Computational Flow Dynamics ECCOMAS CFD 2010, Lissabon, Portugal, 14.-17.06.2010
- [11] Stuehle S. , Wendt D., Hou G., Wendt H., Thielmann M, Jakob H., Kowalczyk W. 2010. Poster: Fluid dynamical investigation of the ATS 3F Enable sutureless heart valve, International Society for Minimally Invasive Cardiothoracic Surgery (ISMICS), 13th Annual Scientific Meeting, Berlin, Deutschland, 16.-19.06.2010
- [12] Kowalczyk W. 2010. Vortrag: Erforsche die Welt des menschlichen Bewegungsapparates und des vaskulären Systems, Girl's Day 2010, Universität Duisburg-Essen, Duisburg, Deutschland, 22.04.2010
- [13] Mansour H., Kowalczyk W. 2010. Vortrag: Numerical simulation of shear and normal forces in standard and shear flow sequencing batch reactor (SF-SBR), 81th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM2010), Universität Karlsruhe, Karlsruhe, Deutschland, 22.-26.03.2009

- [14] Kowalczyk W. 2010. Vortrag: Biomechanik und Biofluidmechanik am Lehrstuhl für Mechanik und Robotik, Seminar des Bereichs Research in Biomedical Sciences (RIBS), Essen, Deutschland, 19.01.2010
- [15] Saha F.J., Kowalczyk W., Dobos G.J. 2009. Poster: A gait analysis pilot study of back pain patients before and after a multimodal pain therapy, 2nd European Congress for Integrative Medicine together with the 2nd German Congress for Integrative Medicine, Berlin, Deutschland, 20.-21.11.2009
- [16] Hou G., Wendt D., Stühle S., Schlamann M., Jakob H., Kowalczyk W. 2009. Vortrag: Blood velocity distribution in an artificial flow channel induced by biological heart valves, 21th International Conference of the Society for Medical Innovation and Technology (SMIT 2009), Sinaia, Rumänien, 7.-9.10.2009
- [17] Wendt D., Stühle S., Thielmann M., Tsagakis K., Hou G., Kowalczyk W., Jakob H. 2009. Vortrag: Nitinol – its current use in cardiac and vascular surgery, 21th International Conference of the Society for Medical Innovation and Technology (SMIT 2009), Sinaia, Rumänien, 7.-9.10.2009
- [18] Stühle S., Wendt D., Wendt H., Hou G., Thielmann M., Kipfmüller B., Kowalczyk W., Jakob H. 2009. Vortrag: Aortic Valve Leaflet Rim to prevent regurgitation: in-vitro comparison of sutureless heart valves, 21th International Conference of the Society for Medical Innovation and Technology (SMIT 2009), Sinaia, Rumänien, 7.-9.10.2009
- [19] Kowalczyk W. 2009. Vortrag (invited lecture): Biofluidmechanik des vaskulären Systems, Westdeutsches Herzzentrum, Essen, Deutschland, 6.07.2009
- [20] Kowalczyk W., Saha F.J., Dobos G.J. Poster und Vortrag: Biomechanische Untersuchung der Auswirkung von Methoden der komplementären Medizin auf den Gang von Patienten mit chronischen Rückenschmerzen, 6. Jahrestagung der Deutschen Gesellschaft für Biomechanik (DGfB), Münster, Deutschland, 14.-16.05.2009
- [21] Hou G., Wendt D., Stühle S., Jakob H., Kowalczyk W. Vortrag: Modeling and numerical simulation of fluid flow induced by the sutureless 3F-Enable aortic valve, Gesellschaft für Angewandte Mathematik und Mechanik (GAMM2009), Gdansk University of Technology, Gdansk, Polen, 9.-13.02.2009
- [22] Tsagakis K., Kamler M., Kuehl H., Kowalczyk W., Tossios P., Thielmann M., Osswald B., Massoudy P., Buck T., Eggebrecht H., Jakob H.G. Vortrag: Avoidance Of Proximal Endoleakage Using A Novel Hybrid Stentgraft In Aortic Arch Replacement And Descending Aorta Stenting. The Society of Thoracic Surgeons (STS) 45th Annual Meeting, San Francisco, California, USA, 26.-28.01.2009
- [23] Kowalczyk W., Tsagakis K., Wendt D., von Sobbe S., Najafi A., Kipfmüller B., Jakob H. Vortrag: Experimental and numerical investigation of a fluid flow in a model ascending aorta with dissection, 20th International Conference of the Society for Medical Innovation and Technology (SMIT 2008), Wien, Österreich, 28.-30.08.2008
- [24] Mathmann M., Kowalczyk W., Delgado A. Poster und Vortrag: Development of a novel hybrid tool to predict the mouthfeel during yogurt consumption, International Congress of Engineering and Food, Viña del Mar, Chile, 20.-28.04.2008
- [25] Kowalczyk W., Cuypers R., Tändl M., Kecskeméthy A. 2008. Poster: Reduction of skin movement artifacts induced during biomechanical human motion analysis, 16th Congress of the European Society of Biomechanics, Lucerne, Switzerland, 6.-9.07.2008
- [26] Kowalczyk W. 2008. Vortrag: Potential applications of hybrid systems in biomechanics. Conference on Interdisciplinary Applications of Kinematics (IAK 2008), Lima, Peru, 9.-11.01.2008
- [27] Benning R., Baars A., Kowalczyk W., Delgado A. 2007. Vortrag: Biotechnological high pressure applications under variable gravity environment. International Topical Team Meeting “Near and Supercritical Fluids”, Nara, Japan, 22.10.2007
- [28] Delgado A., Kowalczyk W., Baars A., Breuer M., Ertunc Ö. 2007. Vortrag: Partikuläre Systeme in der Mikrofluidik, ProcessNet Jahrestagung 2007, 1Aachen, Deutschland, 6.10.2007

- [29] Kowalczyk W., Zima E. B., Delgado A. 2007. Vortrag: Experimental and theoretical approach for analysis of a flow induced by microorganisms existing on a surface of Granular Activated Sludge, IUTAM Symposium on Advances in Micro- and Nanofluidics, Dresden, Deutschland, 6.-8.09.2007
- [30] Zima B. E., Diez L., Kowalczyk W., Delgado A. 2007. Vortrag: Optical in-situ techniques for investigations of a multiphase flow in Sequencing Batch Reactor, Fachtagung Lasermethoden in der Strömungsmesstechnik (GALA 2007), Rostock, Deutschland, 4.-6.09.2007
- [31] Mathmann M., Kowalczyk W., Delgado A. 2007. Vortrag: A novel hybrid method to analyse the coherence between fluid mechanics and texture perception, 7th Pangborn Sensory Science Symposium, Hyatt Regency, Minneapolis, USA, 12-16.08.2007
- [32] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2007. Vortrag: Experimental investigations of multiphase flow in a Sequencing Batch Reactor (SBR), International Conference on Multiphase Flow, ICMF 2007, Leipzig, Germany, 9.-13.07.2007
- [33] Mathmann M., Kowalczyk W., Delgado A. 2007. Vortrag: A novel hybrid approach of detecting measurable coherences between the fluid flow of beer in the mouth and evoked sensory sensations, 31. European Brewery Convention (EBC), Venedig, Italien, 6.-10.05.2007
- [34] Kowalczyk W. 2007. Vortrag: Hybride Ansätze zur Modellierung und Simulation kontinuumsmechanischer Fragestellungen in der Biomechanik, Universität Duisburg-Essen, 21.03.2007
- [35] Zima B.E., Díez L., Kowalczyk, W. 2007. Vortrag: Sequencing Batch Reactor (SBR) as a recent innovation in biological purification of wastewater – fluid mechanical approach. LSTM/FAU Erlangen Seminar, Erlangen, Deutschland, 08.12.2006
- [36] Kowalczyk W., Delgado A. 2006. Vortrag (invited lecture): Influence of high hydrostatic pressure on thermofluidynamics of pressurized food, Workshop Modelization and Simulation in Agro Food Technologies, Universidad Complutense de Madrid, Madrid, Spanien, 24.11.2006
- [37] Mathmann M., Kowalczyk W., Petermeier H., Delgado A. 2006. Vortrag: An investigation of fluid mechanical aspects in the mouth during drinking, European Brewery Convention (EBC) Symposium Drinkability, Edinburgh, Schottland, 6.-7.11.2006
- [38] Kowalczyk W., Zima E., Delgado A., 2006. Vortrag: Mikroorganismische Konvektion im Lichte eines bildgebenden Verfahrens mit neurohybrider Auswertung: Biokompatibilität und Dynamik, SPP 1147 Jahreskolloquium 2006, Stuttgart, Deutschland, 12.-13.10.06
- [39] Kowalczyk W., Delgado A. 2006. Vortrag: Influence of low-g conditions on convection and phase transitions in a vessel at high hydrostatic pressure, 4th International Conference on High Pressure Bioscience and Biotechnology (HPBB 2006), Tsukuba, Japan, 25.-29.09.2006
- [40] Delgado A., Baars A., Rauh C., Kitsubun P., Benning R., Kowalczyk W. 2006. Vortrag: System theoretical considerations of high pressure treatment of biotechnological substances, 4th International Conference on High Pressure Bioscience and Biotechnology (HPBB 2006), Tsukuba, Japan, 25.-29.09.2006
- [41] Mathmann M., Kowalczyk W., Petermeier H., Delgado A. 2006. Poster: Intra-orale mechanische Effekte bei der Lebensmittelaufnahme, 64. FEI-Diskussionstagung des Forschungskreises der Ernährungsindustrie e.V. (2006), Geisenheim, Deutschland, 12.-13.09.2006
- [42] Zima B.E., Kowalczyk W., Delgado A. 2006. Vortrag: Multiphase flow visualisation in a sequencing batch reactor (SBR), 12th International Symposium on Flow Visualization ISFV 2006, German Aerospace Center (DLR), Göttingen, Germany, 10.-14.09.2006
- [43] Zima B.E., Diez L., Kowalczyk W., Delgado A. 2006. Vortrag: Sequencing Batch Reactor (SBR) as optimal method for production of Granular Activated Sludge (GAS) - fluid dynamic investigations, Conference Biofim Systems VI, Amsterdam, Niederlande, 24.-27.09.2006

- [44] Zima B.E., Kowalczyk W., Delgado A. 2006. Vortrag: Visualization of multiphase flow in Sequencing Batch Reactor (SBR) by Particle Image Velocimetry (PIV) and Particle Tracking Velocimetry (PTV), Lasermethoden in der Strömungsmesstechnik (GALA 2006), Braunschweig, Deutschland, 5.-7.09.2006
- [45] Delgado, A., Baars, A., Kowalczyk, W., Kitsubun, P. 2006. Vortrag (plenary lecture): Towards adaptive strategies for high pressure bioprocesses, 44th European High Pressure Research Group (EHPRG 2006) International Conference, Prag, Tschechei, 4.-8.09.2006
- [46] Kowalczyk, W., Delgado, A. 2006. Vortrag (key-note lecture): On convection phenomena during high pressure treatment of liquid media, 44th European High Pressure Research Group (EHPRG 2006) International Conference, Prag, Tschechei, 4.-8.09.2006
- [47] Kowalczyk W., Baars A., Delgado A. 2006. Poster: Heat and momentum transfer during phase change of water under high hydrostatic pressure in numerical and experimental approach, 13th International Heat Transfer Conferences (ITHC-13), Sydney, Australia, 13.-18.08.2006
- [48] Kowalczyk W., Delgado A. 2006. Poster: Investigation of oscillatory and undulatory fin-like motion by means of numerical simulation, 5th World Congress of Biomechanics, München, Deutschland, 29.07.-4.08.2006
- [49] Kowalczyk W., Delgado A. 2006. Poster: Numerical and experimental investigations of high pressure processes containing phase change and their dimensional analysis, 3rd International Meeting on High Pressure Chemical Engineering, Erlangen, Deutschland, 10.-12.05.2006
- [50] Biwański, T., Baars, A., Kowalczyk, W., Delgado, A. 2006. Vortrag: Flow Structure In A Technical Scale Reactor With Internal Reboiler, 77th Annual Meeting of the Gesellschaft für Angewandte Mathematik und Mechanik eV, Berlin, Deutschland, 27-31.03.2006
- [51] Mathmann M., Kowalczyk W., Petermeier H., Delgado A. 2006. Vortrag: Numerische Untersuchung des Texturphänomens Grießigkeit am Beispiel von Joghurt, VDI GVC FA-Sitzungen "Lebensmittelverfahrenstechnik" und "Agglomerations- und Schüttguttechnik", Reinbek, Deutschland, 20.-22.03.2006
- [52] Mathmann M., Kowalczyk W., Petermeier H., Eberhard M., Baars A., Delgado A. 2006. Vortrag: The impact of rheological properties on mouth feeling caused by food, 4th International Symposium on Food Rheology and Structure (ISFRS 2006), Zürich, Schweiz, 19.-23.02.2006
- [53] Kowalczyk, W. 2006. Vortrag: Aspekte der numerischen Thermofluidodynamik bei der Untersuchung von Hochdruckprozessen. 30. Bayerisch-Tirolerisches Mechanik-Kolloquium. Freising, 04.02.2006
- [54] Zima B. E., Diez L., Kowalczyk W., Hartmann Ch., Delgado A. 2005. Poster: Biological purification of wastewater by granules in Sequencing Batch Reactor (SBR) – fluid mechanical approach, 1st European Congress on Life Science Process Technology, Nürnberg, Deutschland 11.-13.10.2005
- [55] Kitsubun P., Kowalczyk W., Delgado A. 2005. Poster: Numerical simulation of the process non-uniformity during high pressure treatment with turbulent inflow conditions, 1st European Congress on Life Science Process Technology, Nürnberg, Deutschland 11.-13.10.2005
- [56] Kowalczyk W., Hartmann C., Delgado A. 2005. Vortrag: Numerical simulation of high pressure supported water-ice phase transition, 4th International Conference on Heat Transfer, Fluid Mechanics, and Thermodynamics (HEFAT 2005), Cairo, Egypt, 19.-22.09.2005
- [57] Zima B. E., Kowalczyk W., Hartmann Ch., Delgado A. 2005. Vortrag: Biologische Abwasserreinigung mittels Granula in einem Sequencing Batch Reaktor (SBR) – eine fluidmechanische Betrachtungsweise, 10. Bremer Colloquium Produktionsintegrierte Wasser-/Abwassertechnik Innovative Verfahren zur industriellen Wasseraufbereitung, Bremen, Deutschland, 13.-14.09.2005
- [58] Biwanski T., Baars A., Kowalczyk W., Delgado A. 2005. Vortrag: Investigation of the flow in an industrial reactor with internal evaporator, Proceedings

International Symposium Research-Education-Technology, Gdańsk, Polen, 20.-22.05.2005

- [59] Biwanski, T., Baars A., Kowalczyk W., Delgado A., Schmidt, Th., Bühler, Th. 2005. Poster: The subject-wort boiling system of low expenditure and high benefit, 30th International EBC-Congress 2005, Prag, Tschechien, 14.-19.05.2005
- [60] Zima B. E., Kowalczyk W., Hartmann Ch., Delgado A. 2005. Vortrag: Influence of velocity distribution in the multiphase flow on the building of aerobic granules in Sequencing Batch Reactor (SBR), GAMM 2005, 76. Jahrestagung der Gesellschaft für Angewandte Mathematik und Mechanik e.V., Luxembourg 28.03 – 01.04.2005
- [61] Kowalczyk W., Delgado A. 2005. Poster: Temperatur- und Geschwindigkeitsverteilung in einer zwischen zwei rotierenden Scheiben strömenden Flüssigkeit, VDI-GVC Fachausschuss Wärme- und Stoffübertragung und Computational Fluid Dynamics, Jena, Deutschland, 8.-9.03.2005
- [62] Kowalczyk W., Hartmann C., Delgado A. 2005. Vortrag: Modellierung und numerische Simulation von Phasenübergängen bei der Hochdruckbehandlung, VDI-GVC Fachausschuss Mehrphasenströmungen, Gasreinigung und Partikelmesstechnik, Würzburg, Deutschland, 21.-23.02.2005
- [63] Kowalczyk W., Baars A., Delgado A. 2004. Poster: Schaumphänomene in einer Würzpfanne mit Innenkocher, DECHEMA / VDI-GVC-Symposium: Schäume – Grundlagen und Anwendungen, Baden-Baden, Deutschland, 16.-17.11.2004
- [64] Kowalczyk W., Luscher C., Knorr D., Hartmann C., Delgado A. 2004. Poster: Zum Scale-up des Hochdruckgefrier- und Auftauprozesses, Statusseminar: Hochdrucklebensmittel-technologie und -bioverfahrenstechnik, Freising, Deutschland, 21.-22.10.2004
- [65] Kowalczyk W., Hartmann C., Delgado A. 2004. Vortrag: Theoretical and Experimental Aspects of Phase Transitions at High Hydrostatic Pressure, 3rd International Conference on High Pressure Bioscience and Biotechnology (HPBB 2004), Rio de Janeiro, Brasilien, 27.-30.09.2004
- [66] Kowalczyk W. 2004. Vortrag: Numerische Simulation von Fest-Flüssig-Phasenübergängen bei der Hochdruckbehandlung, Technische Universität München, Freising, Deutschland, 30.07.2004
- [67] Kowalczyk W., Hartmann C., Delgado A. 2004. Vortrag: The influence of convection on the high pressure induced phase changes in a liquid food, 4th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2004), Jyväskylä, Finnland, 24.-28.07.2004
- [68] Kowalczyk W., Hartmann C., Delgado A. 2003. Vortrag: Modellierung und numerische Simulation von hochdruckinduzierten Gefrier- und Auftauvorgängen in Lebensmittel, Statusseminar Hochdruckbehandlung von Lebensmitteln, Berlin, Deutschland, 1.-2.10.2003
- [69] Kowalczyk W., Hartmann C., Delgado A. 2003. Vortrag: Numerical simulation of freezing and thawing of food under high hydrostatic pressure in the ice I range, Joint 19th AIRAPT – 41th EHPRG International Conference High Pressure Science and Technology, Bordeaux, Frankreich, 7.-11.07.2003
- [70] Kowalczyk W., Hartmann C., Delgado A. 2003. Vortrag: Freezing and Thawing at the High Hydrostatic Pressure Conditions – Modelling and Numerical Simulation, Gesellschaft für Angewandte Mathematik und Mechanik (GAMM), Abano Terme - Padua, Italien, 24.-28.03.2003
- [71] Kowalczyk W., Hartmann C., Delgado A. 2003. Vortrag: Numerische Simulation von hochdruckunterstützten Gefrier- und Auftauprozessen, VDI-GVC Fachausschuss Lebensmittelverfahrenstechnik, Freising, Deutschland, 12.-14.03.2003
- [72] Kowalczyk W., Hartmann C., Delgado A. 2002. Poster: Modelling and Numerical Simulation of Pressure Induced Phase Changes of a Fluid Food System, High Pressure Bioscience and Biotechnology (HPBB 2002), Dortmund, Deutschland, 16.-19.09.2002
- [73] Diakun J., Kowalczyk W. 1998. Vortrag: Badanie podatności chmielu na rozdrabnianie i granulację (Investigation of hops responsiveness to comminution

and granulation), VIII Konferencja Naukowo-Techniczna Budowa i Eksploatacja Maszyn Przemysłu Spożywczego (VIII Scientific-Technical Conference Construction and Exploitation of Food Processing Machinery), Politechnika Białostocka, Białystok, Polen, 1998

- [74] Diakun J., Kowalczyk W., Maceluch J. 1997. Vortrag: Badanie możliwości rozróżnienia piwa i wody mieszających się w przepływie (Investigation of possibility of differentiation of water and beer mixing during flow), I Ogólnopolska Konferencja Automatyka w Rolnictwie i Przetwórstwie Spożywczym Mielno '97, (I National Conference Automation in Agriculture and Food Industry Mielno '97), Koszalin-Mielno, Polen, 1997