

Publication list:

1. Peer per-reviewed articles (group members bold)

2022

1. **Duong, H.L., Paufler, S.,** Harms, H., Schlosser, D., **Maskow, T.,** (2022) Fungal Lignocellulose Utilisation Strategies from a Bioenergetic Perspective: Quantification of Related Functional Traits Using Biocalorimetry. Microorganisms (accepted)

2021

2. **Duong, H.L., Paufler, S.,** Harms, H., **Maskow, T.,** Schlosser, D. (2021) Applicability and information value of biocalorimetry for the monitoring of fungal solid-state fermentation of lignocellulosic agricultural by-products. *New Biotechnology* 66, 97-106
3. **Fricke, C.,** Klee, T., Richter, S., **Paufler, S.,** Harms, H., **Maskow, T.** (2021) Numerical heat flow and transport simulation as a development tool for the design of isothermal microcalorimeters. *Thermochimica Acta* 706, 179070
4. Korth, B., **Heber, C.,** Normant-Saremba, M., **Maskow, T.,** Harnisch, F. (2021) Precious data from tiny samples: Revealing the correlation between energy content and the chemical oxygen demand of municipal wastewater using micro-bomb combustion calorimetry. *Frontiers in Energy Research* 9: 705800
5. Held, C., Greinert, T., **Vogel, K., Maskow, T.** (2021) A New Thermodynamic Activity-Based Approach Allows Predicting the Feasibility of Glycolysis. *Scientific Reports* 11:6125
6. **Vogel, K.,** Wei, R., Pfaff, L., Breite, D., **Al-Fathi, H.,** Ortmann, Ch., Estrela-Lopis, I., Venus, T., Schulze, A., Harms, H., Bornscheuer, U., **Maskow, T.** (2021) Enzymatic degradation of polyethylene terephthalate nanoplastics analyzed in real time by isothermal titration calorimetry. *Science of the Total Environment* 773: 145111

2020

7. **Vogel, K.,** Greinert, T., **Reichard, M.,** Held, C., Harms, H., **Maskow, T.** (2020) Thermodynamics and Kinetics of Glycolytic Reactions. Part I: Kinetic modeling based on irreversible thermodynamics and validation by calorimetry *International Journal of Molecular Sciences* 21: 8341
8. **Vogel, K.,** Greinert, T., **Reichard, M.,** Held, C., Harms, H., **Maskow, T.** (2020) Thermodynamics and Kinetics of Glycolytic Reactions. Part II: Influence of Cytosolic Conditions on Thermodynamic State Variables and Kinetic Parameters. *International Journal of Molecular Sciences* 21: 7921
9. **Vogel, K.,** Greinert, T., Harms, H., Sadowski, G, Held, C., **Maskow, T.** (2020) Influence of cytosolic conditions on the reaction equilibrium and the reaction enthalpy of the enolase reaction accessed by calorimetry and van 't Hoff. *BBA – General Subjects* 1864: 129675
10. **Fricke, C.,** Harms, H., **Maskow, T.** (2020) How to speed up the detection of aerobic microbial contaminations by using isothermal microcalorimetry. *Journal of Thermal Analysis and Calorimetry* 142: 1933-1949
11. **Vogel, K.,** Greinert, T., Held, C., Harms, H., **Maskow, T.** (2020) Application of irreversible thermodynamics to determine the influence of cell mimicking conditions on the kinetics of equilibrium reactions of the glycolysis. *Biophys. J.* 118 (3, Suppl. 1), 346a - 347a
12. **Rohwerder, T.** (2020) New Structural Insights into Bacterial Sulfoacetaldehyde and Taurine Metabolism. *Biochemical Journal.* 477:1367-1371
13. **Rohwerder, T.,** Rohde, M.-T., Jehmlich, R., Purswani, J. (2020) Actinobacterial Degradation of 2-Hydroxyisobutyric Acid Proceeds via Acetone and Formyl-CoA by Employing a Thiamine-Dependent Lyase Reaction. *Frontiers in Microbiology* 11: 691

14. Greinert, T., **Vogel, K.**, Mühlenweg, J.-K., Sadowski, G., **Maskow, T.**, Held, C. (2020) Standard Gibbs energy of metabolic reactions: VI. Glyceraldehyde 3-phosphate dehydrogenase reaction. *Fluid Phase Equilibria* 517: 112597
15. Greinert, T., **Vogel, K.**, Seifert, A.-I., Seifert, R., Andreeva, I.V., Verevkin, S.P., **Maskow, T.**, Sadowski, G., Held, C. (2020) Standard Gibbs energy of metabolic reactions: V. enolase reaction. *BBA - Proteins and Proteomics* 1868: 140365
16. **Fricke, C.**, Xu, J., Jiang, F.-L., Liu, Y., Harms, H., **Maskow, T.** (2020) Rapid culture-based detection of *Legionella pneumophila* using isothermal microcalorimetry with an improved evaluation method. *Microbial Biotechnology* 13(4): 1262-1272

2019

17. **Al-Fathi, H.**, Koch, M., Lorenz, W.G., Lechner, U. (2019) Anaerobic degradation of 2,4,5-trichlorophenoxyacetic acid by enrichment cultures from freshwater sediments. *Environmental Science and Pollution Research* 26(33): 34459-34467
18. Kleinstaubler, S., **Rohwerder, T.**, Lohse, U., Seiwert, B., Reemtsma, T. (2019) Sated by a ZeroCalorie Sweetener: Wastewater Bacteria Can Feed on Acesulfame. *Frontiers in Microbiology* 10: 2606
19. **Fricke, C.**, Harms, H., **Maskow, T.** (2019) Rapid Calorimetric Detection of Bacterial Contamination: Influence of the Cultivation Technique. *Frontiers in Microbiology* 10: 2530
20. **Maskow, T.**, **Rothe, A.**, Jakob, T., **Paufler, S.**, Wilhelm, C. (2019) Photocalorespirometry (Photo-CR): A novel method for access to photosynthetic energy conversion efficiency. *Scientific Reports* 9, 9298
21. Zahn, M., Kurteva-Yaneva, N., Schuster, J., Krug, U., Georgi, T. Müller, R. H., **Rohwerder, T.**, Sträter, N. (2019) Structures of 2-Hydroxyisobutyric Acid-CoA Ligase reveal determinants of substrate specificity and describe a multi-conformational catalytic cycle. *Journal of Molecular Biology* 431: 2747-2761

2018

22. Fiedler, D., **Maskow, T.** (2018) A Note of Thanks from the Guest Editors to Professor Wolfgang Babel – An Inspiring Researcher and Highly Esteemed Teacher. *Engineering in Life Sciences* 18: 412 – 413
23. Xu, J., He, H., Wang, Y.-Y., Yan, R., Zhou, L.-J., Jiang, F.-L., **Maskow, T.**, Liu, Y. (2018) New Aspects of the Environmental Risks of Quantum Dots: Prophage Activation. *Environmental Science: Nano* 5(7): 1556-1566
24. Russel, M., Marios, S., JiaJia, S., Xu, W., Xiao, L., **Maskow, T.**, Alam, M.M., Georgiou, J. (2018) High-Frequency, dielectric spectroscopy for the detection of electrophysiological/biophysical differences in different bacteria types and concentrations. *Analytica Chimica Acta* 1010: 86-95
25. Xu, J., Jiang, F.-J., Liu, Y., Kiesel, B., **Maskow, T.** (2018) An enhanced bioindicator for calorimetric monitoring of prophage-activating chemicals in the trace concentration range. *Engineering in Life Sciences* 18: 475-483
26. Xu, J., Kiesel, B., Kallies, R., Jiang, F.-L., Liu, Y., **Maskow, T.** (2018) A fast and reliable method for monitoring of prophage-activating chemicals. *Microbial Biotechnology* 11(6): 1112-1120

2017

27. Korth, B., **Maskow, T.**, Günther, S., Harnisch, F. (2017) Estimating the energy content of wastewater using combustion calorimetry and different drying processes. *Frontiers in Energy Research*, 5:23. DOI 10.3389/fenrg.2017.0.00023
28. Korth, B., **Maskow, T.**, Harnisch, F. (2017) Bioelektrokalorimetrie – der mikrobielle elektrochemische Pletier-Effekt. *Biospektrum* 23(2): 220-221

29. Zhou Z-Q, Yang L-Y, Yan R., Zhao J, Liu Y-Q, Lai L, Jiang F-L, **Maskow T**, Liu Y (2017) Mndoped ZnSe quantum dots initiated mild and rapid cation exchange for tailoring composition and optical properties of colloid nanocrystals: novel template, new applications. *Nanoscale* 9(8): 2824-2835
30. Altwasser V, Pätz R.R., Lemke T, **Paufler S**, **Maskow T** (2017) A simple Method for the Measurement of Metabolic Heat Production Rates during Solid-State Fermentations Using β Carotene Production with *Blakeslea trispora* as a Model System. *Engineering in Life Sciences* 17: 620-628

2016

31. Korth B, **Maskow T**, Picioreanu C, Harnisch F (2016) The microbial electrochemical Peltier heat: an energetic burden and engineering chance for primary microbial electrochemical technologies. *Energy & Environmental Science* 9: 2539-2544
32. **Rohde M-T**, **Paufler S**, Harms H, **Maskow T** (2016) Calorespirometric Feeding Control Enhances Bioproduction from Toxic Feedstocks – Demonstration for Biopolymer Production out of Methanol. *Biotechnology and Bioengineering* 113(10): 2113-2121

2015

33. **Herke Z**, **Maskow T**, Nemeth ZI (2015) A new method for detecting cross-inhibition effects in the environmental biocatalytic processes. *BioTechnologica* 96(4): 279-284
34. **Maskow T**, **Paufler S** (2015) What does calorimetry and thermodynamics of living cells tell us? *Methods* 76: 3-10
35. Przybylski D, Rohwerder T, Dilßner C, **Maskow T**, Harms H, Müller RH (2015) Exploiting mixtures of H₂, CO₂ and O₂ for improved production of methacrylate precursor 2hydroxyisobutyric acid by engineered *Cupriavidus necator* strains. *Applied Microbiology and Biotechnology* 99:2131-2145

2014

36. Hoffmann P, Held C, **Maskow T**, Sadowski G (2014) A thermodynamic investigation of the glucose-6-phosphate isomerization. *Biophysical Chemistry* 195: 22-31
37. **Maskow T**, **Mariana Morais F**, Rosa LFM, Qian YG, Harnisch F (2014). Insufficient Oxygen Diffusion Leads to Distortions of Microbial Growth Parameters Assessed by Isothermal Microcalorimetry, *RSC Advances* 4: 32730-32737
38. **Mariana Morais F**, **Buchholz F**, Hartmann T, Lerchner J, Neu TR, Kiesel B, Harms H, **Maskow T** (2014). Chip-calorimetric Monitoring of Biofilm Eradication With Bacteriophages Reveals an Unexpected Infection Related Heat Profile. *Journal of Thermal Analysis and Calorimetry*, 115: 2203-2210

2013

39. Hartmann T, Mühlhng M, Wolf A, **Mariana F**, **Maskow T**, Mertens F, Neu T.R., Lerchner J (2013) A chip-calorimetric approach to the analysis of Ag nanoparticle caused inhibition and inactivation of beads-grown bacterial biofilms. *Journal of Microbiological Methods* 95: 129-137
40. **Paufler S**, **Weichler M-T**, Harms H, **Maskow T** (2013) Simple Improvement of the Sensitivity of a Heat Flux Reaction Calorimeter to Monitor Bioprocesses with Weak Heat Production. *Thermochim. Acta* 569: 71-77
41. **Mariana F**, **Buchholz F**, Lerchner J, Neu TR, Harms H, **Maskow T** (2013) Chip-Calorimetric Monitoring of Biofilm Eradication with Antibiotics Provides Mechanistic Information. *International Journal of Medical Microbiology* 303: 158– 165
42. Regestein L, **Maskow T**, Track A, Knabben I, Wunderlich M, Lerchner J, Büchs J (2013) Noninvasive Online Detection of Microbial Lysine Formation in Stirred Tank Bioreactors by Using Calorespirometry. *Biotechnology and Bioengineering* 110(5): 1387-1395

2012

43. Regestein L, Wolf A, Schneider H.-J., **Maskow T**, Mertens F, Büchs J, Lerchner J (2012) A chip calorimeter for the monitoring of conventional bioreactors at elevated cell densities. *Thermochimica Acta* 544: 10– 16
44. **Maskow T**, **Wolf K**, Kunze W, Harms H, Enders S (2012) Rapid analysis of bacterial contaminations in drinking water using isothermal calorimetry. *Thermochimica Acta* 543: 273-280.
45. **Buchholz F**, Lerchner J, Mariana F, Kuhlicke U, Neu TR, Harms H, **Maskow T** (2012) Chipcalorimetry provides real time insights into the inactivation of biofilms by predatory bacteria. *Biofouling* 28(3): 351–362
46. **Maskow T** (2012) Nano- und Megakalorimetrie, Echtzeiteinblicke in biologische Prozesse. *BIOspektrum* 18: 100 – 101.

2011

47. **Maskow T**, **Schubert T**, Wolf A, **Buchholz F**, Regestein L, Buechs J, Mertens F, Harms H, Lerchner J (2011) Potentials and limitations of miniaturized calorimeters for bioprocess monitoring. *Applied Microbiology and Biotechnology* 92: 55-66
48. **Oroszi S**, Jakob T, Wilhelm C, Harms H, **Maskow T** (2011) Photosynthetic energy conversion in the diatom *Phaeodactylum tricornutum*: measured by calorimetry, oxygen evolution and pulseamplitude modulated fluorescence. *Journal of Thermal Analysis and Calorimetry* 104: 223-234

2010

49. **Buchholz F**, Harms H, **Maskow T** (2010) Biofilm research using calorimetry – a marriage made in heaven? *Biotechnology Journal* 5 (12), 1339 - 1350
50. **Hölscher T**, **Breuer U**, Adrian L, Harms H, **Maskow T** (2010) Production of the chiral compound (R)-3-hydroxybutyrate by a genetically engineered methylotrophic bacterium. *Applied and Environmental Microbiology* 76 (16), 5585 - 5591
51. **Buchholz F**, Wolf A, Lerchner J, Mertens F, Harms H, **Maskow T** (2010) Fast and reliable evaluation of bactericidal and bacteriostatic treatment of biofilms using chip calorimetry. *Antimicrobial Agents and Chemotherapy* 54, 312 - 319
52. **Maskow T**, Kiesel B, **Schubert T**, **Yong Z**, Harms H, Yao J (2010) Calorimetric Real Time Monitoring of Lambda Prophage Induction. *Journal of Virological Methods* 168 (1-2), 126-132
53. **Maskow T**, Kemp RB, **Buchholz F**, **Schubert T**, Kiesel B, Harms H (2010) What heat is telling us about microbial conversions in nature and technology: from chip- to megacalorimetry. *Microbial Biotechnology* 3: 269 – 284
54. **Mariana F**, **Buchholz F**, Harms H, Yong Z, Yao J, **Maskow T** (2010) Isothermal Titration Calorimetry - a new Method for the Quantification of Microbial Degradation of Trace Pollutants. *Journal of microbiological Methods*, 82, 42-48
55. Zhou Y, Yao J, He M, Choi M.M.F., Feng L, Chen H, Wang F, Chen K, Zhuang R, **Maskow T**, Wang G, Zaray G (2010) Reduction in toxicity of arsenic(III) to *Halobacillus* sp. Y35 by kaolin and their related adsorption studies. *Journal of Hazardous Materials* 176, 487 -494

2009

56. Yao J, Wang F, Tian L, **Zhou Y**, Chen H-L, Chen K, Gai N, Zhuang RS, **Maskow T**, Ceccanti B, Zaray G (2009) Studying the toxic effect of cadmium and hexavalent chromium on microbial activity of a soil and pure microbe: a microcalorimetric method. *Journal of Thermal Analysis and Calorimetry*, 95, 517–524
57. Chen HL, Yao J, Wang F, Bramanti E, **Maskow T**, Zaray G (2009) . Acute toxic effects of three pesticides on *Pseudomonas putida* monitored by microcalorimeter. *Journal of Environmental Science and Health, Part B* 44(2), 157 - 163

58. Wang F, Yao J, Chen H, **Zhou Y**, Chen Y, Chen H, Gai N, Zhuang R, Tian L, **Maskow T**, Ceccanti B, Trebse P, Zaray G (2009) Microcalorimetric measurements of the microbial activities of single- and mixed-species with trivalent iron in soil. *Ecotoxicology and Environmental Safety* 72, 128 – 135
59. **Zhou Y**, Yao J, Choi MMF, Chen Y, Chen H, Mohammad R, Zhuang R, Chen H, Wang F, **Maskow T**, Zaray G (2009) A combination method to study microbial communities and activities in zinc contaminated soil. *Journal of Hazardous Materials* 169, 875-881
60. Chen H-L, Yao J, Wang L, Wang F, Bramanti E, **Maskow T**, Zaray G (2009) Evaluation of solvent tolerance of microorganisms by microcalorimetry. *Chemosphere* 74, 1407 - 1411

2008

61. **Maskow T**, Voinovic V, von Stockar U (2008) Kalorimetrie und biothermodynamische Modelle zur Analyse, Steuerung und Vorhersage von Biokatalysen mit ganzen Zellen. *Chemie Ingenieur Technik* 80(9), 1283
62. Pörtner R, **Maskow T** (2008) Von der Zelle zum Prozess. *Transkript* 12 (2008), 58
63. Mothes G, **Schubert T**, Harms H, **Maskow T** (2008) Biotechnological coproduction of compatible solutes and polyhydroxyalkanoates using the genus *Halomonas*. *Engineering in Life Sciences* 8(6), 658-662
64. Lerchner J, **Buchholz F**, Wolf A, Mertens F, Neu T, Harms H, **Maskow T** (2008) Miniaturized Calorimetry - a new Method for Real Time Biofilm Analysis. *Journal of Microbiological Methods* 74, 74–81
65. Yao J, Tian L, Wang F, Chen HL, Xu CQ, Su CL, Cai MF, **Maskow T**, Zaray G, Wang YX (2008) Microcalorimetric Study on Effect of Chromium(III) and Chromium(VI) Species on the Growth of *Escherichia coli*. *Chinese Journal of Chemistry* 26, 101—106 (IF=0.7)
66. Chen Y, Yao J, Wang F, **Zhou Y**, Chen H, Gai N, Chen H, Chen K, **Maskow T**, Ceccanti B, Zaray G (2008) Toxic Effect of Inorganic Arsenite [As(III)] on Metabolic Activity of *Bacillus Subtilis* by Combined Methods. *Current Microbiology*, 57, 258 - 263
67. **Maskow T**, **Röllich A**, Fetzer I, Yao J, Harms H (2008) Observation of non-linear biomass–capacitance correlations: Reasons and implications for bioprocess control. *Biosensors and Bioelectronics* 24, 123–128
68. Chen H, Yao J, Zhou Y, Chen H, Wang F, Gai N, Zhang R, Zaray G, **Maskow T**, Ceccanti B (2008) Investigation of the toxic effect of cadmium on *Candida humicola* and *Bacillus subtilis* using microcalorimetric method. *Journal of Hazardous Material* 159, 465 – 470
69. **Maskow T** (2008) Editorial Topical Issue: Current Status and Advances in Biothermodynamics. *Eng. Life. Sci.* 5, 461-462
70. **Maskow T**, **Röllich A**, Fetzer I, Ackermann J-U, Harms H (2008) On-line Monitoring of Lipid Accumulation in Yeast Using Impedance Spectroscopy. *Journal of Biotechnology* 135, 64-70

2007

71. Wang F, Yao J, Tian L, Zhou Y, Chen Hu, Chen Ha, Gai N., Zhuang R, Zaray G, **Maskow T**, Bramanti E (2007) Microcalorimetric investigation of the toxic action of ammonium ferric(III) sulfate on the metabolic activity of pure microbes. *Environmental Toxicology and Pharmacology* 25:351-357
72. Yao J, Xu C, Wang F, Tian L, Wang Y, Chen H, Yong Z, Choi M.M.F., Bramanti E, **Maskow T** (2007) An in vitro microcalorimetric method for studying the toxic effect of cadmium on microbial activity of an agricultural soil. *Ecotoxicology* 16 (7), 503-509
73. Schumer D, Breuer U, Harms H, **Maskow T** (2007) Thermokinetic analysis reveals the complex growth and haloadaptation pattern of the non-conventional yeast *Debaryomyces hansenii*. *Engineering in Life Sciences* 7 (4), 322–330

74. **Schubert T, Maskow T**, Benndorf D, Harms H, Breuer U (2007) Continuous Synthesis and Excretion of the Compatible Solute Ectoine by a Transgenic Non-Halophilic Bacterium. *Applied and Environmental Microbiology* 73 (10), 3343-3347
75. Liu J-S, Vojanovic V, Patiño R, **Maskow T**, von Stockar U (2007) A Comparison of various Gibbs energy dissipation correlations for predicting microbial growth yields. *Thermochimica Acta* **458**, 38-46
76. **Schubert T**, Breuer U, Harms H, **Maskow T** (2007) Calorimetric bioprocess monitoring by small modifications to a standard bench-scale bioreactor *Journal of Biotechnology* 130, 24-31
77. Lerchner J, **Maskow T**, Wolf G (2007) Chip calorimetry and its use for biochemical and cell biological investigations. *Chemical Engineering and Processing* 47 (6), 991-999
78. **Peitzsch M**, Kiesel K, Harms H; **Maskow T** (2007) Real time analysis of *Escherichia coli* biofilms using calorimetry. *Chemical Engineering and Processing* 47 (6), 1000-1006
79. **Buchholz F**, Wick LY, Harms H, **Maskow T** (2007) Assessment of kinetic biodegradation parameters of hydrophobic polycyclic aromatic hydrocarbons using isothermal titration calorimetry (ITC). *Thermochimica Acta* **458**, 47-53
80. von Stockar U, Vojinovic V, **Maskow T**, Liu J (2007) Can microbial growth yield be estimated using simple thermodynamic analogies to technical processes? *Chemical Engineering and Processing* 47 (6), 980-990

2006

81. **Maskow T**, Harms H (2006) Real Time Insights into Bioprocesses Using Calorimetry: State of the Art and Potential. *Engineering in Life Sciences* **6**, 266-277
82. **Maskow T**, Lerchner J, **Peitzsch M**, Harms H (2006) Biothermodynamic characterization and dynamic analysis of biofilms using calorimetry. *Biofilms* **2**,245-273
83. **Maskow T**, Müller S, Lösche A, Kemp R, Harms H (2006) Control of continuous polyhydroxyalkanoate synthesis using calorimetry and flow cytometry. *Biotechnology and Bioengineering* 93, 541-552
84. **Maskow T**, Lerchner J, **Peitzsch M**, Harms H, Wolf G (2006) A miniaturized chip-calorimeter for the monitoring of whole cell biotransformation. *Journal of Biotechnology* 122, 431-442
85. Von Stockar U, **Maskow T**, Liu J, Marison IW, Patiño R (2006) THERMODYNAMICS OF MICROBIAL GROWTH AND METABOLISM : An Analysis of the Current Situation. *Journal of Biotechnology* 121, 517-533
86. **Maskow T**, Memmert K (2006) DECHEMA-Arbeitsausschuss "Technik biologischer Prozesse" und VDI-GVC-Fachausschuss "Bioverfahrenstechnik". *Chemie Ingenieur Technik* 78, 490-491

before 2005

87. **Maskow T**, von Stockar U (2005) How reliable are thermodynamic feasibility statements of biochemical pathways? *Biotechnology and Bioengineering* 92, 223-230
88. **Maskow T**, Olomolaiye D, Breuer U und Kemp RB (2004) Flow calorimetry and dielectric spectroscopy to control the bacterial conversion of toxic substrates into Polyhydroxyalkanoates. *Biotechnology and Bioengineering* 85, 547-552
89. **Maskow T**, Kleinstaub S (2004) Carbon- and energy fluxes during haloadaptation of a *Halomonas sp.* EF11 growing on phenol. *Extremophiles* 8, 133-141
90. Alvarez HM, Silva RA, Cesari AC, Silva RA, Zamit AL, Peressutti SR, Reichelt R, Keller U, Malkus U, Rasch Ch, **Maskow T**, Mayer F, Steinbüchel A (2004) Physiological and Morphological Responses of the Soil bacterium *Rhodococcus opacus* Strain PD630 to water stress. *FEMS Microbiology Ecology* 50, 75-86
91. **Maskow T**, Babel W (2003) Thermokinetic Description of Anaerobic Growth of *Halomonas halodenitrificans* Using a Static Microcalorimetric Ampoule Technique. *Journal of Biotechnology* 101, 267-274

92. Riis V, **Maskow T**, Babel W (2003) Highly sensitive determination of ectoine and other compatible solutes by anion exchange chromatography and pulsed amperometric detection.
93. Analytical and Bioanalytical Chemistry 377, 203-207
94. **Maskow T**, Babel W (2002) Calorimetric analysis of microorganisms in transient growth states to quantify changes of metabolic fluxes in response to nutrient deficiencies and osmotic stress. *Thermochimica Acta* 382, 229-237
95. **Maskow T**, Babel W (2001) A Calorimetrically Based Method to Convert Toxic Compounds into Poly-3-Hydroxybutyrate and to Determine the Efficiency and Velocity of Conversion. *Applied Microbiology Biotechnology* 55, 234-238
96. **Maskow T**, Babel W (2001) Calorimetrically Obtained Information about Efficiency of Synthesis of Ectoine from Glucose by *Halomonas elongata*. *Biochimica et Biophysica Acta* 1527, 4-10
97. **Maskow T**, Babel W (2000) Calorimetrically Recognized Maximum Yield of Poly-3hydroxybutyrate (PHB) Continuously Synthesized from Toxic Substrates. *Journal of Biotechnology* 77, 247-253
98. **Maskow T**, Babel W (1998) Calorimetric Investigations of Bacterial Growth on Phenol - Efficiency and Velocity of Growth as a Function of the Assimilation Pathways. *Thermochimica Acta* 309, 97-103
99. Glindemann D, **Maskow T**, Browarzik D, Kehlen H, Kutscha J (1997). Role of Azeotropy in Characterization of Complex Hydrocarbon Mixtures by True-Boiling-Point Distillation. *Fluid Phase Equilibria* 135, 149-167
100. Browarzik D, Glindemann D, Kehlen H, **Maskow T**, Kutscha J (1996). Einfluß der Azeotropie auf die analytische Destillation komplexer Kohlenwasserstoffgemische. *Chemie Ingenieur Technik* 68, 138-141

2. Book contributions

1. Assael, M. J.; Maitland, G.C.; **Maskow, T.**; von Stockar, U., Wakeham, W.A., Will, S. (2022) Commonly Asked Questions in Thermodynamics, Second Edition, CRC Press, Taylor & Francis Group, Boca Raton, London, New York
2. **Mariana-Morais F, Buchholz F, Maskow T** (2014) Chip-calorimetry for evaluation of biofilm treatment with biocides, antibiotics and biological agents. In Gianfranco Donelli (ed.), *Microbial Biofilms: Methods and Protocols, Methods in Molecular Biology*, vol. 1147, DOI 10.1007/978-4939-0467-9_19, © Springer Sciences+Business Media New York 2014
3. **Maskow T**, Haynes CA (2013) The Thermodynamics of Electrically Charged Molecules in Solution. In *Biothermodynamics The Role of Thermodynamics in Biochemical Engineering*. von Stockar U (ed). EPFL Press Distributed by CRC Press, pp. 31-61.
4. **Maskow T** (2013) Miniaturization of Calorimetry: Strengths and Weaknesses for Bioprocess Monitoring and Control. In *Biothermodynamics The Role of Thermodynamics in Biochemical Engineering*. von Stockar U (ed). EPFL Press Distributed by CRC Press, pp. 423-442.
5. von Stockar U, **Maskow T**, Vojinovic V (2013) Thermodynamic Analysis of Metabolic Pathways. In *Biothermodynamics The Role of Thermodynamics in Biochemical Engineering*. von Stockar U (ed). EPFL Press Distributed by CRC Press, pp. 581-604.
6. **Maskow T** (2009) Analyse und Steuerung mikrobieller Konversionen mit mikrokalorimetrischen Methoden. In: *Anwendungen der Thermischen Analyse, Mikrokalorimetrie und Rheologie im Bereich der Pharmazie, Biotechnologie, Lebensmitteltechnologie und Kosmetik*; Hrsg. Wolfgang Kunze, Eschborn, ISBN 978-3-940184-04-7
7. **Maskow T**, Kemp, R.B. (2007) Bioprocess Engineering – Bioprocess analysis through Calorimetry and Biothermodynamics. In *Biotechnology [Eds. Horst W. Doelle and Edgar J. DaSilva]* in *Encyclopedia of Life Support Systems (EOLSS)*, Developed under the auspices of the UNESCO, Eolss Publishers, Oxford, UK, [<http://www.eolss.net>]
8. Becker T, Liese A, **Maskow T**, Schippers A, Takors R und Ulber R (2005), Large-scale biotechnology In: *Biotechnology 2020: From the transparent cell to the custom-designed process*. European Commission; Office for official publications of the European Commission, Luxembourg

9. Becker T, Liese A, **Maskow T**, Schippers A, Takors R und Ulber R (2004), Biotechnologie ganz groß! In: Biotechnologie 2020: Von der gläsernen Zelle zum maßgeschneiderten Prozess. DECHEMA

3. Patents

1. **Maskow, T.**, Harms, H., **Effenberger, M.** (2008) Verfahren zur kalorimetrischen Untersuchung von wässrigen Flüssigkeiten auf Belastungen mit Mikroorganismen. DE 10 2008 048 229
2. **Maskow, T.**, Harms H., Torsten S., Mothes G. (2008) Verfahren zur simultanen Produktion von PHA und kompatiblen Soluten in halophilen Bakterien DE 10 2008 045 237
3. Babel W, Kleinsteuber S und **Maskow, T.** (2002) Method for the Continuous Biotechnological Production of Compatible Solutes from Toxic Substrates. WO 02/50298 A1
4. **Maskow T**, Babel W und Kleinsteuber S (2000) Verfahren zur kontinuierlichen biotechnologischen Herstellung von kompatiblen Soluten aus toxischen Substraten. DE 100 65 071.6
5. **Maskow T** und Babel W (1998) Verfahren zur kontinuierlichen Herstellung von Polyhydroxybuttersäure "Process for continuous production of poly-3-hydroxybutyric acid" Internationale Patentanmeldung PCT/EP99/02803