Standardisations

[1] DIN SPEC 91535:2026-10: *Prüfverfahren zur Ermittlung der Energieeffizienz von KI-Anwendungen unter Berücksichtigung von Software und Hardware; Text Englisch*

[2] VDE SPEC 90045 V1.0 (de): *Farbliche Markierung technischer Funktionen von Vorrichtungen für das elektrochemische Präzisionsabtragen*

[3] DIN SPEC 92006:2026-02: *Künstliche Intelligenz - Anforderungen an KI-Prüfwerkzeuge; Text Englisch*
https://dx.doi.org/10.31030/3668609

[4] VDE SPEC 90028 V1.0 (de): *Methode zur Erstellung digitaler Zwillinge von Prozessenergiequellen für das elektrochemische Präzisionsabtragen*

[5] DIN SPEC 91481:2024-02: *Classification of recycled plastics of polyamides by Data Quality Levels for use and (digital) trading*
https://dx.doi.org/10.31030/3515186

[6] DIN SPEC 17028:2021-04: *Additive Fertigung - Methode zur zerstörungsfreien Ermittlung von mechanischen Eigenschaften von additiv gefertigten Kunststoffteilen*
https://dx.doi.org/10.31030/3244819

[7] DIN SPEC 91399:2018-12: *Methode zur Bestimmung von Prozesseingangsgrößen für das elektrochemische Präzisionsabtragen - Anforderungen, Kriterien, Festlegungen*
https://dx.doi.org/10.31030/3007935

Publications

[8] R. Petermann, P. Clauß, S. Nickel, G. Meichsner, **M. Hackert-Oschätzchen**: *Influence of the Pulse Width on the Lateral Gap in Pulsed Electrochemical Machining*, Engineering Research Express, 2026
https://doi.org/10.1088/2631-8695/aec067

[9] J. H. Diedrich, S. Tetora, C. Lerez, **M. Hackert-Oschätzchen**: *Analysis of Quality Features for Maintenance Instructions and Deduction of an Assessment Scheme for their Formats and Content*, AUTOMATION 2026, Innovation trifft Anwendung, 2026
978-3-8007-6738-0

[10] R. Petermann, S. Nickel, L. Berg, P. Clauß, G. Meichsner, **M. Hackert-Oschätzchen**: *Influence of Process Input Parameters on the Reproducibility of Microstructures on Stainless Steel 304 in Pulsed Electrochemical Machining*, In: Procedia CIRP, Volume 144, 2026
https://doi.org/10.1016/j.procir.2026.02.096

[11] A. Thielecke, P. Clauß, G. Meichsner, P. Damm, G. Jungblut, M. Schäfer, **M. Hackert-Oschätzchen**: *Modulated Pulsed Electrochemical Machining of Tungsten Carbide–cobalt: An Experimental Study According to DIN SPEC 91399*, Solid State Phenomena, Volume 391, 2026
https://doi.org/10.4028/p-wUhTP5

[12] P. Damm, O. Bederitzky, J. Vogel, A. Riefer, P. Plänitz, C. Lerez, G. Meichsner, **M. Hackert-Oschätzchen**: *Classification and Detection Method for Discharges in Electrical Discharge Machining through Unsupervised Learning*, Solid State Phenomena, Volume 391, 2026
https://doi.org/10.4028/p-71ES2b

[13] C. Michaelis, E. Koslowski, A. Giese, C. Schwarz, **M. Hackert-Oschätzchen**: *Assessment of Natural Gas–Hydrogen Fuel Blends for Industrial Melting Furnaces in Secondary Aluminium Production*, Materials Science Forum, Volume 1188, 2026
https://doi.org/10.4028/p-7YjXqc

[14] R. Petermann, G. Meichsner, P. Clauß, S. Nickel, **M. Hackert-Oschätzchen**: *Estimation of the Lateral Gap in PECM: A Case Study on Tool Steel S390*, Materials Science Forum, Volume 1187, 2026
https://doi.org/10.4028/p-L9BoI3

[15] F. Hoffmann, P. Plänitz, A. May, F. Winkler, M. Barth, S. Majcherek, **M. Hackert-Oschätzchen**: *Analysis of Connection Geometries for Segmented Stator Cores Machined with Laser Beam Cutting*, Materials Science Forum, Volume 1187, 2026
https://doi.org/10.4028/p-3Tuj2F

[16] N. Paucke, M. Beutner, A. Lümkemann, K. Thomas, M. Učík, H. Bolvardi, **M. Hackert-Oschätzchen**: *Influence of the Crystal Structure of AlCrN on Tool Coating Properties and Wear in Dry Gear Hobbing*, Defect and Diffusion Forum, Volume 450, 2026
https://doi.org/10.4028/p-LO2XLh

[17] M. Beutner, **M. Hackert-Oschätzchen**, M. Eich, B. Karpuschewski: *Potential of cutting fluid application in gear hobbing of high-strength materials*, Defect and Diffusion Forum, Volume 450, 2026
https://doi.org/10.4028/p-YtwNQ4

[18] C. Lerez, V. Artiushenko, **M. Hackert-Oschätzchen**: *Exploring Artificial Intelligence for Tool Wear Prediction in Turn-Milling*, Defect and Diffusion Forum, Volume 450, 2026
https://doi.org/10.4028/p-sP9lea

[19] M. M. Sahib, P. Plänitz, **M. Hackert-Oschätzchen**, C. Lerez: *Condition Monitoring Model Development for Belt Systems Using Hybrid CNN–BiLSTM Deep-Learning Techniques*, Machines, 14(3), 2026
https://doi.org/10.3390/machines14030348

[20] C. Lerez, R. Petermann, C. Felhö, T. Namboodri, A. Neu, N. Szűcs, M. M. Sahib, P. Plänitz, **M. Hackert-Oschätzchen**: *Surface Roughness Prediction in Turning Stainless Steel Applying Deep Learning and LSTM Networks*, Procedia Computer Science, 277, 2026
https://doi.org/10.1016/j.procs.2026.02.057

[21] J. Diedrich, R. Mahboubfar, S. Byba, C. Lerez, **M. Hackert-Oschätzchen**: *Analysis of User expectations and Formats of AI-generated Step-by-Step Instructions for Industrial Maintenance*, Procedia Computer Science, 277, 2026
https://doi.org/10.1016/j.procs.2026.02.178

[22] R. Petermann, P. Clauß, G. Meichsner, F. Meyer, S. Nickel, **M. Hackert-Oschätzchen**: *Analysis of repeatability for experimental characterization of lateral gap during Pulsed Electrochemical Machining*, In: Proceedings of the 21st International Symposium on Electrochemical Machining Technology (INSECT), 2025
https://doi.org/10.51382/978-3-96100-259-7-07

[23] A. Riefer, P. Damm, G. Meichsner, **M. Hackert-Oschätzchen**: *Dependence of friction on boundary curvature for Navier-slip conditions and highly viscous liquids*, COMSOL Technical Papers and Presentations, 2025

[24] A. Riefer, R. Petermann, **M. Hackert-Oschätzchen**, G. Meichsner, U. Morawietz, P. Becher, M. Gläser: *Hygrothermal simulations for the signal of an integrated RH sensor for wood windows*, COMSOL Technical Papers and Presentations, 2025

[25] A. Riefer, P. Damm, G. Meichsner, T. Muschalek, M. Gläser, G. Schmidt, **M. Hackert-Oschätzchen**: *Simulation of Radon diffusion from soil into buildings considering media lead-through*, COMSOL Technical Papers and Presentations, 2025

[26] J. Döring, V. Voropai, A. Thielecke, G. Meichsner, O. Maiß, **M. Hackert-Oschätzchen**, C. H. Lohmann, J. Bertrand: *Reduction of Micro-Motion at the Tapered Connection of Hip Endoprostheses with an Adapted Deep Rolling Process of CoCrMo Inner Tapers*, Advanced Materials Interfaces, Volume 12, 2025
https://doi.org/10.1002/admi.202500404

[27] F.F. Klimashin, M. Učík, M. Matas, D. Holec, M. Beutner, **M. Hackert-Oschätzchen**, A. Xomalis, J.J. Schwiedrzik, J. Klusoň, M. Jílek, A. Lümkemann, J. Michler, T.E.J. Edwards: *Superstoichiometric (Al,Cr)N: Nitrogen's Whereabouts and Role in Structure-Property Relationships*, Acta Materialia, Volume 294, 2025
https://doi.org/10.1016/j.actamat.2025.121158

[28] R. Petermann, P. Clauß, G. Meichsner, F. Meyer, **M. Hackert-Oschätzchen**: *Experimental characterisation of lateral machining gap during Pulsed Electrochemical Machining for corrosion resistant tool steel*, In: Procedia CIRP, Volume 137, 2025
https://doi.org/10.1016/j.procir.2025.06.009

[29] R. Petermann, P. Clauß, G. Meichsner, J. Vogel, **M. Hackert-Oschätzchen**: *Method for the Characterisation of the Material Removal in Modulated Pulsed Electrochemical Machining*, In: Procedia CIRP, Volume 137, 2025
https://doi.org/10.1016/j.procir.2025.01.110

[30] A. Thielecke, P. Clauß, R. Petermann, G. Meichsner, P. Damm, L. Berg, G. Jungblut, M. Schäfer, **M. Hackert-Oschätzchen**: *Experimental investigation of electrochemical precision machining process for tungsten carbide-cobalt applying sodium nitrate electrolyte*, In: Procedia CIRP, Volume 137, 2025
https://doi.org/10.1016/j.procir.2025.06.007

[31] A. Riefer, P. Plänitz, G. Meichsner, **M. Hackert-Oschätzchen**: *Determination of the NaCl electrolyte viscosity from reactive force field molecular dynamics simulations*, In: Procedia CIRP, Volume 133, 2025
https://doi.org/10.1016/j.procir.2025.02.020

[32] N. Paucke, A. Thielecke, R. Petermann, G. Meichsner, **M. Hackert-Oschätzchen**: *Transient 3D Simulation of electrolyte flow in an ablation device for the determination of process input parameters according to DIN SPEC 91399*, In: Procedia CIRP, Volume 133, 2025
https://doi.org/10.1016/j.procir.2025.02.051

[33] N. Paucke, M. Beutner, P. Damm, G. Meichsner, G. Hahn, D. Zimmermann, M. Steffens, **M. Hackert-Oschätzchen**: *Tool wear analysis in hobbing high torque splined shafts*, In: Materials research proceedings, Volume 54, 2025
https://doi.org/10.21741/9781644903599-177

[34] P. Plänitz, R. Petermann, A. Shemchuk, S. Majcherek, M. Barth, **M. Hackert-Oschätzchen**: *Concept and prototype of a 3-component extruder for fusion deposition of vibration-damping polymer concrete*, In: Materials research proceedings, Volume 54, 2025
https://doi.org/10.21741/9781644903599-222

[35] P. Damm, D. Groschupp, L. Berg, A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**: *Investigation of post-processing of additively manufactured stainless steel by electrochemical jet machining*, In: Materials research proceedings, Volume 54, 2025
https://doi.org/10.21741/9781644903599-243

[36] C. Lerez, C. Michaelis, L. Zak, L. Blumenröhr, **M. Hackert-Oschätzchen**: *Investigation on the surface integrity in electrical discharge machining of Co-Cr-Mo*, In: Materials research proceedings, Volume 54, 2025
https://doi.org/10.21741/9781644903599-228

[37] A. Thielecke, P. Clauß, M. Schröder, G. Meichsner, R. Petermann, P. Damm, **M. Hackert-Oschätzchen**: *Experimental derivation of process input parameters for electrochemical precision machining of additively and conventionally produced 316L stainless steel*, In: Materials research proceedings, Volume 54, 2025
https://doi.org/10.21741/9781644903599-242

[38] R. Petermann, P. Clauß, P. Damm, G. Meichsner, **M. Hackert-Oschätzchen**: *Experimental derivation of process input parameters for electrochemical precision machining of a powder metallurgical tool steel*, In: Materials research proceedings, Volume 41, 2024
https://doi.org/10.21741/9781644903131-260

[39] A. Thielecke, **M. Hackert-Oschätzchen**, G. Meichsner, T. Berger, S. Loebel, A. Martin, R. Schulze, A. Schubert: *Simulation-based analysis of electrical current induction in a device for electrochemical precision machining of Nd Fe B permanent magnets*, In: Materials research proceedings, Volume 41, 2024
https://doi.org/10.21741/9781644903131-264

[40] P. Damm, M. Adinehvand, M. Beutner, G. Meichsner, G. Hahn, D. Zimmermann, M. Steffens, **M. Hackert-Oschätzchen**: *Analysis of the influence of the initial surface integrity on the result of burnished high torque splined shafts*, In: Materials research proceedings, Volume 41, 2024
https://doi.org/10.21741/9781644903131-212

[41] V. Artiushenko, S. Lang, C. Lerez, T. Reggelin, **M. Hackert-Oschätzchen**: *Resource-efficient Edge AI solution for predictive maintenance*, Procedia Computer Science, 232, 2024
https://doi.org/10.1016/j.procs.2024.01.034

[42] A. Riefer, **M. Hackert-Oschätzchen**, P. Plänitz, G. Meichsner: *Characterization of iron(III) in aqueous and alkaline environments with ab initio and ReaxFF potentials*, The Journal of Chemical Physics, 160, 2024
https://dx.doi.org/10.1063/5.0182460

[43] C. Michaelis, E. Koslowski, **M. Hackert-Oschätzchen**, A. Giese, C. Hamers, C. Schwarz: *Gas/hydrogen blends as fuel to produce secondary aluminium*, International Aluminium Journal, 1-2, 2024
ISSN 0002-6689

[44] A. Martin, T. Berger, S. Loebel, R. Schulze, A. Thielecke, **M. Hackert-Oschätzchen**, A. Schubert: *Accuracy of pulsed electrochemical machining of NdFeB rotor magnets*, In: Proceedings of the 19th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, T. Hall, M. Zeiner, 2023
ISBN 978-3-00-077159-0

[45] J. Hülsmann, T. Fraune, B. Dodawatta, F. Reuter, M. Beutner, V. Beck, **M. Hackert-Oschätzchen**, C. D. Ohl, K. Bettenbrock, G. Janiga, J. Wippermann, M. Wacker: *Integrated biophysical matching of bacterial nanocellulose coronary artery bypass grafts towards bioinspired artery typical functions*, In: Scientific Reports, Volume 13, 2023
https://doi.org/10.1038/s41598-023-45451-2

[46] A. Riefer, **M. Hackert-Oschätzchen**, G. Meichsner, P. Plänitz: *Derivation of parameter sets for the ReaxFF+ method for modeling an electrochemical machining process*, In: Procedia CIRP, Volume 117, 2023
https://doi.org/10.1016/j.procir.2023.03.040

[47] A. Thielecke, **M. Hackert-Oschätzchen**, N. Komilov, G. Meichsner, T. Petzold, S. Loebel, A. Martin, R. Schulze, A. Schubert: *Simulation-based analysis of electrical current induction in electrochemical precision machining of Nd-Fe-B permanent magnets*, In: Procedia CIRP, Volume 117, 2023
https://doi.org/10.1016/j.procir.2023.03.039

[48] P. Damm, G. Meichsner, C. Lerez, **M. Hackert-Oschätzchen**: *Design of a user-friendly human machine interface for jet electrochemical machining*, In: Materials research proceedings, Volume 28, 2023
https://doi.org/10.21741/9781644902479-177

[49] A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**: *Digital twin for the determination of process input variables for electrochemical precision machining according to DIN SPEC 91399*, In: Materials research proceedings, Volume 28, 2023
https://doi.org/10.21741/9781644902479-178

[50] J. Döring, V. Voropai, A. Thielecke, O. Maiß, M. Müller, G. Meichsner, **M. Hackert-Oschätzchen**, J. Häberle, C. H. Lohmann, J. Bertrand: *Steigerung des Torsionswiderstands der Konussteckverbindung durch einen angepassten Fertigungsprozess der CoCrMo Hüftkugel*, In: 12. Kongress der Deutschen Gesellschaft für Biomechanik (DGfB), 2022

[51] J. Hülsmann, F. Reuter, M. Beutner, T. Fraune, V. Beck, M. Wacker, **M. Hackert-Oschätzchen**, C.-D. Ohl, K. Bettenbrock, M. Scherner, J. Wippermann: *Improving the Biofunctionality of Bacterial Nanocellulose Hydrogel Scaffolds by Bioprocessing Strategies*, In: 32nd Annual Conference of the European Society for Biomaterials (ESB), 2022

[52] J. Hülsmann, F. Reuter, M. Beutner, M. Wacker, **M. Hackert-Oschätzchen**, C.-D. Ohl, K. Bettenbrock, G. Janiga, M. P. Scherner, J. Wippermann: *How to optimize coronary artery bypass graft prosthesis based on bacterial nanocellulose*, In: 5th International Symposium on Bacterial Cellulose, 2022

[53] S. Loebel, T. Petzold, A. Martin, P. Steinert, A. Schubert, A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**, R. Schulze: *Comparison of electrochemical removal characteristics between magnetized and demagnetized NdFeB*, In: Proceedings of the 18th International Symposium on Electrochemical Machining Technology, Editors: T. Koyano, M. Uchiyama, 2022
ISBN 978-4-915698-21-7

[54] T. Wienand, G. Meichsner, **M. Hackert-Oschätzchen**: *Jet electrochemical machining simulation of intersecting line removals with adjustable nozzle diameter by a finite area element grid*, In: Procedia CIRP, Volume 102, 2021
https://doi.org/10.1016/j.procir.2021.09.060

[55] T. Wienand, G. Meichsner, **M. Hackert-Oschätzchen**: *Transient Removal Simulation of the Jet Electrochemical Machining Process based on a Finite Area Element Grid*, In: Proceedings of the 16th International Symposium on Electrochemical Machining Technology, Editors: A. Schubert, M. Zinecker, 2020
ISBN 978-3-95735-125-8

[56] G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**: *Experimental Characterization of Resource Efficient Process Chains for Electrochemical Precision Machining of Form-bore Patterns*, In: Procedia CIRP, Volume 95, 2020
https://doi.org/10.1016/j.procir.2020.02.252

[57] I. Schaarschmidt, **M. Hackert-Oschätzchen**, G. Meichsner, P. Steinert, M. Zinecker, A. Schubert: *Working Gap Analysis in Electrochemical Precision Machining of External Geometries with Ring Cathodes*, In: Procedia CIRP, Volume 95, 2020
https://doi.org/10.1016/j.procir.2020.02.279

[58] I. Danilov, R. Paul, **M. Hackert-Oschätzchen**, M. Zinecker, S. Quitzke, A. Schubert: *Random Sequential Simulation of the Resulting Surface Roughness in Plasma Electrolytic Polishing of Stainless Steel*, In: Procedia CIRP, Volume 95, 2020
https://doi.org/10.1016/j.procir.2020.02.255

[59] T. Berger, M. Herzig, **M. Hackert-Oschätzchen**, H.-P. Schulze, A. Martin, O. Kröning, A. Schubert: *Experimental Characterisation of a High Dynamic Piezo Module for Resource-efficient Electrothermal Precision Ablation*, In: Procedia CIRP, Volume 95, 2020
https://doi.org/10.1016/j.procir.2020.02.299

[60] C. Döbberthin, R. Müller, G. Meichsner, F. Welzel, **M. Hackert-Oschätzchen**: *Experimental analysis of the shape accuracy in electrochemical polishing of femoral heads for hip endoprosthesis*, In: Procedia Manufacturing, Volume 47, 2020
https://doi.org/10.1016/j.promfg.2020.04.222

[61] I. Schaarschmidt, P. Steinert, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert, G. Jungblut: *Experimental study on micro forming of structured surfaces for high static friction connection elements*, In: Procedia Manufacturing, Volume 47, 2020
https://doi.org/10.1016/j.promfg.2020.04.188

[62] T. Petzold, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Deburring and Edge Shaping by Electrochemical Machining with Differentially Switched Currents*, In: Proceedings of the 15th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Ernst, 2019
ISBN 978-3-00-064086-5

[63] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, T. Petzold, M. Zinecker, A. Schubert: *Modelling of Precise Electrochemical Machining for Nickel-based Centrifugal Impellers*, In: Proceedings of the 15th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Ernst, 2019
ISBN 978-3-00-064086-5

[64] S. Schröder, A. Martin, V. Kahle, **M. Hackert-Oschätzchen**, A. Schubert: *Removal rate and surface roughness in plasma-electrolytic polishing of 1.4441 stainless steel*, In: Proceedings of the 15th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Ernst, 2019
ISBN 978-3-00-064086-5

[65] S. Quitzke, A. Martin, **M. Hackert-Oschätzchen**, H. Zeidler, A. Schubert: *Process Design for Jet Plasma electrolytic Polishing of Stainless Steel*, In: Proceedings of the 15th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Ernst, 2019
ISBN 978-3-00-064086-5

[66] G. Tosello, M. Gulcur, B. Whiteside, P. Coates, A. Luca, P. V. d. S. L. Fook, O. Riemer, I. Danilov, M. Y. Zanjani, **M. Hackert-Oschätzchen**, A. Schubert, F. Baruffi, S. B. Achour, M. Calaon, C. V. Nielsen, G. Bissacco, E. Cannella, A. Rasmussen, M. Bellotti, K. Saxena, J. Qian, D. Reynaerts, T. Santoso, W. Syam, R. Leach, S. K. Kose, P. Parenti, M. Annoni, Y. Cai, X. Luo, Y. Qin, H. Zeidler: *Micro product and process fingerprints for zero-defect net-shape micromanufacturing*, In: Proceedings of the 19th euspen International Conference , 2019
ISBN 978-0-9957751-4-5

[67] I. Schaarschmidt, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Implementation of the Machine Tool-Specific Current and Voltage Control Characteristics in Multiphysics Simulation of Electrochemical Precision Machining*, In: Procedia CIRP, Volume 82, 2019
https://doi.org/10.1016/j.procir.2019.04.142

[68] R. Paul, **M. Hackert-Oschätzchen**, I. Danilov, M. Yahyavi Zanjani, A. Schubert: *3D Multiphysics Simulation of Jet Electrochemical Machining of Intersecting Line Removals*, In: Procedia CIRP, Volume 82, 2019
https://doi.org/10.1016/j.procir.2019.04.154

[69] **M. Hackert-Oschätzchen**, R. Paul, A. Schubert: *Multiphysics Simulation of Oxide Layer Growth in Localized Anodization of Aluminum Applying a Free-Surface Electrolyte Jet*, In: Procedia CIRP, Volume 82, 2019
https://doi.org/10.1016/j.procir.2019.04.035

[70] M. Yahyavi Zanjani, **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, J. Edelmann, A. Schubert: *Process Control in Jet Electrochemical Machining of Stainless Steel through Inline Metrology of Current Density*, In: Micromachines, Volume 10(3), 2019
https://doi.org/10.3390/mi10040261

[71] I. Danilov, **M. Hackert-Oschätzchen**, M. Zinecker, G. Meichsner, J. Edelmann, A. Schubert: *Process Understanding of Plasma Electrolytic Polishing through Multiphysics Simulation and Inline Metrology*, In: Micromachines, Volume 10(3), 2019
https://doi.org/10.3390/mi10030214

[72] R. Morgenstern, A. Martin, N. Lehnert, I. Scharf, **M. Hackert-Oschätzchen**, A. Schubert, T. Lampke: *Localized anodization of the aluminum alloy en AW-7075 T6 by closed electrolytic free jet*, In: IOP Conference Series: Materials Science and Engineering, Volume 480, 2019
https://doi.org/10.1088/1757-899X/480/1/012015

[73] T. Petzold, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Simulation-based Design of an Electrolyte System for Electrochemical Machining with Differentially Switched Currents*, In: Proceedings of the 6th International Conference on Competitive Manufacturing, 2019
ISBN: 978-0-7972-1779-9

[74] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Simulation-based Design of Electrochemical Machining Processes for Microstructuring of High-strength Materials*, In: Proceedings of the 14th International Symposium on Electrochemical Machining Technology, Editors: T. Bergs, T. Herrig, S. Harst, A. Klink, 2018
ISBN 978-3-86359-667-5

[75] A. Martin, T. Petzold, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Experimental Derivation of Process Input Parameters for Electrochemical Machining with Differentially Switched Currents*, In: Proceedings of the 14th International Symposium on Electrochemical Machining Technology, Editors: T. Bergs, T. Herrig, S. Harst, A. Klink, 2018
ISBN 978-3-86359-667-5

[76] G. Meichsner, **M. Hackert-Oschätzchen**, S. Loebel, L. Boenig, A. Schubert, M. Putz: *Characterization of the Lateral Working Distance in Precise Electrochemical Machining of Differently Heat Treated Steel*, In: Proceedings of the 14th International Symposium on Electrochemical Machining Technology, Editors: T. Bergs, T. Herrig, S. Harst, A. Klink, 2018
ISBN 978-3-86359-667-5

[77] S. Quitzke, O. Kröning, A. Martin, **M. Hackert-Oschätzchen**, H.-P. Schulze, C. Kranhold, H. Zeidler, A. Schubert: *Design of a Test Rig for Local Surface Modification by Jet Plasma Electrolytic Polishing*, In: Proceedings of the 14th International Symposium on Electrochemical Machining Technology, Editors: T. Bergs, T. Herrig, S. Harst, A. Klink, 2018
ISBN 978-3-86359-667-5

[78] S. Loebel, **M. Hackert-Oschätzchen**, R. Paul, G. Meichsner, A. Schubert: *Simulationsbasierte Gestaltung von elektrochemischen Abtragprozessen für hochfeste Materialien*, In: Tagungsband zum 1. Kolloquium der sächsischen Allianz für Material- und ressourceneffiziente Technologien, 2018
ISBN 978-3-95735-091-6

[79] A. Schubert, A. Martin, M. Yahyavi Zanjani, **M. Hackert-Oschätzchen**: *Elektrochemisches Abtragen im Freistrahl*, In: Mikroproduktion, 6, 2018
ISSN 1614-4538

[80] M. Penzel, I. Schaarschmidt, **M. Hackert-Oschätzchen**, A. Schubert: *Numerical Investigation of Electrolyte Flow in a Multi-Cathode System for Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2018

[81] I. Danilov, **M. Hackert-Oschätzchen**, I. Schaarschmidt, M. Zinecker, A. Schubert: *Transient Simulation of the Removal Process in Plasma Electrolytic Polishing of Stainless Steel*, In: Proceedings of the European COMSOL Conference, 2018

[82] I. Schaarschmidt, P. Steinert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Simulation-based Analysis of a Microstructuring Process for Serrated Surfaces with Higher Friction*, In: Proceedings of the European COMSOL Conference, 2018

[83] N. Lehnert, A. Martin, J. W. Mwangi, **M. Hackert-Oschätzchen**, A. Schubert, R. Morgenstern, T. Lampke: *Multiphysics Simulation of Localised Anodisation of Aluminium*, In: Proceedings of the 18th euspen International Conference, 2018
ISBN 978-0-9957751-2-1

[84] A. Schubert, T. Berger, A. Martin, **M. Hackert-Oschätzchen**, N. Treffkorn, R. Kühn: *Surface Structuring of Boron Doped CVD Diamond by Micro Electrical Discharge Machining*, In: AIP Conference Proceedings, Volume 1960, 2018
https://doi.org/10.1063/1.5034926

[85] N. Lehnert, G. Meichsner, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Study on the Influence of the Processing Speed in the Generation of Complex Geometries in Aluminium Matrix Composites by Electrochemical Precision Machining*, In: Procedia CIRP, Volume 68, 2018
https://doi.org/10.1016/j.procir.2017.12.143

[86] T. Berger, H.-P. Schulze, **M. Hackert-Oschätzchen**, M. Herzig, O. Kröning, A. Schubert: *Design of a High Dynamic Piezo Module for Resource-efficient Electrothermal Precision Ablation*, In: Procedia CIRP, Volume 68, 2018
https://doi.org/10.1016/j.procir.2017.12.153

[87] A. Martin, **M. Hackert-Oschätzchen**, N. Lehnert, A. Schubert: *Analysis of the Fundamental Removal Geometry in Electrochemical Profile Turning with Continuous Electrolytic Free Jet*, In: Procedia CIRP, Volume 68, 2018
https://doi.org/10.1016/j.procir.2017.12.085

[88] N. Lehnert, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Derivation of Guidelines for Reliable Finishing of Aluminium Matrix Composites by Jet Electrochemical Machining*, In: Procedia CIRP, Volume 68, 2018
https://doi.org/10.1016/j.procir.2017.12.086

[89] R. Schimmelpfennig, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Microstructuring of Joining Areas in Aluminum Alloy Sheets by Jet Electrochemical Machining*, In: Technologies for Lightweight Structures, Volume 1, 2017
https://doi.org/10.21935/tls.v1i2.80

[90] A. Martin, **M. Hackert-Oschätzchen**, N. Lehnert, A. Schubert: *Analysis of the Removal Geometry in Electrochemical Straight Turning with Continuous Electrolytic Free Jet*, In: Proceedings of the 13th International Symposium on Electrochemical Machining Technology, Editors: A. Michaelis, M. Schneider, 2017
ISBN 978-3-8396-1261-3

[91] M. Yahyavi Zanjani, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Evaluation of On-Machine Gap Measurement Strategies in Jet-Electrochemical Machining*, In: Proceedings of the 13th International Symposium on Electrochemical Machining Technology, Editors: A. Michaelis, M. Schneider, 2017
ISBN 978-3-8396-1261-3

[92] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Development of Interfaces for Material Data Integration in Models of Electrochemical Machining Processes*, In: Proceedings of the 13th International Symposium on Electrochemical Machining Technology, Editors: A. Michaelis, M. Schneider, 2017
ISBN 978-3-8396-1261-3

[93] G. Meichsner, T. Petzold, **M. Hackert-Oschätzchen**, J. Edelmann, A. Schubert, M. Putz, G. Hahn: *Reduplication of Precise Internal Geometries by Pulsed Electrochemical Machining*, In: Proceedings of the 13th International Symposium on Electrochemical Machining Technology, Editors: A. Michaelis, M. Schneider, 2017
ISBN 978-3-8396-1261-3

[94] R. Paul, **M. Hackert-Oschätzchen**, M. Zinecker, A. Schubert: *Approximation of the Flow Field in Electrochemical Machining Incorporating Pressure Drop Calculation*, In: Proceedings of the European COMSOL Conference, 2017

[95] I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Multiscale Model of the PECM with Oscillating Cathode for External Geometries using a Virtual Switch*, In: Proceedings of the European COMSOL Conference, 2017

[96] P. Steinert, R. Paul, I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, T. Muschalek, J. Esslinger, A. Schubert: *Analysis of Mixing Chambers for the Processing of Two-component Adhesives for Transport Applications*, In: Proceedings of the European COMSOL Conference, 2017

[97] M. Penzel, M. Zinecker, A. Schubert, **M. Hackert-Oschätzchen**, A. Ludwig, A. Adamczewski, A. Schulz, M. Lausberg: *Investigation of Forced Convection in Pin Structured Cold Plates for Improved Heat Transfer and Heat Spreading*, In: Proceedings of the 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, 2017

[98] M. Herzig, T. Berger, H.-P. Schulze, **M. Hackert-Oschätzchen**, O. Kröning, A. Schubert: *Modification of the process dynamics in micro-EDM by means of an additional piezo-control system*, In: AIP Conference Proceedings, Volume 1896, 2017
https://doi.org/10.1063/1.5008048

[99] R. Kühn, T. Berger, M. Prieske, R. Börner, **M. Hackert-Oschätzchen**, H. Zeidler, A. Schubert: *Deposition and Micro Electrical Discharge Machining of CVD-Diamond Layers Incorporated with Silicon*, In: AIP Conference Proceedings, Volume 1896, 2017
https://doi.org/10.1063/1.5008057

[100] **M. Hackert-Oschätzchen**, R. Paul, M. Kowalick, D. Kuhn, G. Meichsner, M. Zinecker, A. Schubert: *Characterization of an Electrochemical Machining Process for Precise Internal Geometries by Multiphysics Simulation*, In: Procedia CIRP, Volume 58, 2017
https://doi.org/10.1016/j.procir.2017.04.021

[101] I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Multiscale Multiphysics Simulation of a Pulsed Electrochemical Machining Process with Oscillating Cathode for Microstructuring of Impact Extrusion Punches*, In: Procedia CIRP, Volume 58, 2017
https://doi.org/10.1016/j.procir.2017.04.005

[102] M. Sieber, R. Morgenstern, D. Kuhn, **M. Hackert-Oschätzchen**, A. Schubert, T. Lampke: *Downscaled anodic oxidation process for aluminium in oxalic acid*, In: IOP Conference Series: Materials Science and Engineering, Volume 181, 2017
https://doi.org/10.1088/1757-899X/181/1/012044

[103] D. Kuhn, A. Martin, C. Eckart, M. Sieber, R. Morgenstern, **M. Hackert-Oschätzchen**, T. Lampke, A. Schubert: *Localised anodic oxidation of aluminium material using a continuous electrolyte jet*, In: IOP Conference Series: Materials Science and Engineering, Volume 181, 2017
https://doi.org/10.1088/1757-899X/181/1/012042

[104] A. Spille-Kohoff, G. Meichsner, **M. Hackert-Oschätzchen**, R. Schulze, S. Busan: *3D CFD Simulation of Electrochemical Machining Based on Dissolving Characteristics within the SIREKA Joint Research Project*, In: Proceedings of the 12th International Symposium on Electrochemical Machining Technology, 2016
ISBN 978-9-4619746-1-7

[105] **M. Hackert-Oschätzchen**, N. Lehnert, G. Meichsner, C. Scherf, A. Martin, A. Schubert: *Experimental Derivation of Processing Strategies for Electrochemical Precision Machining of Aluminium Matrix Composites*, In: Proceedings of the 12th International Symposium on Electrochemical Machining Technology, 2016
ISBN 978-9-4619746-1-7

[106] A. Martin, D. Kuhn, **M. Hackert-Oschätzchen**, A. Schubert: *Design and Realisation of a Specific Device for Jet Electrochemical Machining of Rotating Work Pieces*, In: Proceedings of the 12th International Symposium on Electrochemical Machining Technology, 2016
ISBN 978-9-4619746-1-7

[107] G. Meichsner, **M. Hackert-Oschätzchen**, T. Petzold, M. Krönert, J. Edelmann, A. Schubert, M. Putz: *Removal Characteristic of Stainless Steel in Pulsed Electrochemical Machining*, In: Proceedings of the 12th International Symposium on Electrochemical Machining Technology, 2016
ISBN 978-9-4619746-1-7

[108] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, C. Scherf, A. Martin, A. Schubert: *Analysis of an Electrochemical Machining Process for Particle Reinforced Aluminium Matrix Composites*, In: Proceedings of the European COMSOL Conference, 2016

[109] **M. Hackert-Oschätzchen**, M. Kowalick, R. Paul, M. Zinecker, D. Kuhn, G. Meichsner, A. Schubert: *2-D Axisymmetric Simulation of the Electrochemical Machining of Internal Precision Geometries*, In: Proceedings of the European COMSOL Conference, 2016

[110] **M. Hackert-Oschätzchen**, M. Penzel, M. Kreißig, M. Kowalick, M. Zinecker, G. Meichsner, A. Schubert: *Transient Simulation of an Electrochemical Machining Process for Stamping and Extrusion Dies*, In: Proceedings of the European COMSOL Conference, 2016

[111] **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, G. Meichsner, A. Schubert: *Surface Characterization of Particle Reinforced Aluminum-Matrix Composites Finished by Pulsed Electrochemical Machining*, In: Procedia CIRP, Volume 45, 2016
https://doi.org/10.1016/j.procir.2016.02.078

[112] A. Martin, C. Eckart, N. Lehnert, **M. Hackert-Oschätzchen**, A. Schubert: *Generation of Defined Surface Waviness on Tungsten Carbide by Jet Electrochemical Machining with Pulsed Current*, In: Procedia CIRP, Volume 45, 2016
https://doi.org/10.1016/j.procir.2016.02.076

[113] G. Meichsner, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann, A. Schubert, M. Putz: *Fast Determination of the Material Removal Characteristics in Pulsed Electrochemical Machining*, In: Procedia CIRP, Volume 46, 2016
https://doi.org/10.1016/j.procir.2016.03.175

[114] **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, A. Schubert: *Jet Electrochemical Machining of Particle Reinforced Aluminum Matrix Composites with Different Neutral Electrolytes*, In: IOP Conference Series: Materials Science and Engineering, Volume 118, 2016
https://doi.org/10.1088/1757-899X/118/1/012036

[115] A. Schubert, U. Götze, **M. Hackert-Oschätzchen**, N. Lehnert, F. Herold, G. Meichsner, A. Schmidt: *Evaluation of the Technical-Economic Potential of Particle- Reinforced Aluminum Matrix Composites and Electrochemical Machining*, In: IOP Conference Series: Materials Science and Engineering, Volume 118, 2016
https://doi.org/10.1088/1757-899X/118/1/012035

[116] A. Schubert, **M. Hackert-Oschätzchen**, A. Martin, S. Winkler, D. Kuhn, G. Meichsner, H. Zeidler, J. Edelmann: *Generation of Complex Surfaces by Superimposed Multi-dimensional Motion in Electrochemical Machining*, In: Procedia CIRP, Volume 42, 2016
https://doi.org/10.1016/j.procir.2016.02.216

[117] A. Schubert, H. Zeidler, R. Kühn, **M. Hackert-Oschätzchen**, S. Flemmig, N. Treffkorn: *Investigation of Ablation Behaviour in Micro-EDM of Nonconductive Ceramic Composites ATZ and Si3N4-TiN*, In: Procedia CIRP, Volume 42, 2016
https://doi.org/10.1016/j.procir.2016.02.309

[118] **M. Hackert-Oschätzchen**: *Gestaltung von elektrochemischen Abtragprozessen durch Multiphysiksimulation gezeigt an der Endformgebung von Mikrobohrungen*, In: A. Schubert (Hrsg.): Scripts Precision and Microproduction Engineering, Band 10, 2015
ISBN 978-3-95735-028-2

[119] A. Schubert, **M. Hackert-Oschätzchen**, N. Lehnert: *Endformgebung von hochfesten, partikelverstärkten Aluminiummatrix-Verbundwerkstoffen (AMCs) durch elektrochemisches Abtragen*, DGM-Magazin dIALOG, Ausgabe 4, 2015
ISSN 2193:3383

[120] **M. Hackert-Oschätzchen**, R. Morgenstern, N. Lehnert, A. Martin, T. Lampke, A. Schubert: *Basic Research on Electrochemical Machining of Particle Reinforced Aluminium Matrix Composites*, In: Proceedings of the 11th International Symposium on Electrochemical Machining Technology, 2015

[121] A. Spille-Kohoff, R. Schulze, G. Meichsner, **M. Hackert-Oschätzchen**, S. Busan: *Optimized design of electrochemical machining processes by a combination of 3D simulation and rapid prototyping of cathodes*, In: Proceedings of the 11th International Symposium on Electrochemical Machining Technology, 2015

[122] **M. Hackert-Oschätzchen**, R. Paul, M. Kowalick, A. Martin, G. Meichsner, A. Schubert: *Multiphysics Simulation of the Material Removal in Jet Electrochemical Machining*, In: Procedia CIRP, Volume 31, 2015
https://doi.org/10.1016/j.procir.2015.03.098

[123] O. Kröning, M. Herzig, **M. Hackert-Oschätzchen**, R. Kühn, H. Zeidler, A. Schubert: *Micro Electrical Discharge Machining of Tungsten Carbide with Ultra-Short Pulse*, In: Key Engineering Materials, Volumes 651-653, 2015
https://doi.org/10.4028/www.scientific.net/KEM.651-653.759

[124] **M. Hackert-Oschätzchen**, R. Paul, A. Martin, G. Meichsner, N. Lehnert, A. Schubert: *Study on the Dynamic Generation of the Jet Shape in Jet Electrochemical Machining*, In: Journal of Materials Processing Technology, Volume 223, 2015
https://doi.org/10.1016/j.jmatprotec.2015.03.049

[125] G. Meichsner, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann, A. Schubert, G. Hahn, M. Putz: *Characterisation of the Influence of Material Hardness in Precise Electrochemical Machining of Steel*, In: Proceedings of the 17th International Conference on the Strength of Materials (ICSMA 17), 2015
ISBN 978-80-87434-07-9

[126] H. Zeidler, A. Martin, M. Kowalick, **M. Hackert-Oschätzchen**, A. Schubert: *Analysis of a PECM Electrode Concept for Micro Injection Moulds by Multiphysics Simulation*, In: Proceedings of the 4M/ICOMM2015 Conference, 2015
https://doi.org/10.3850/978-981-09-4609-8_137

[127] G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert, T. Petzold, J. Edelmann, A. Schubert: *Quantifizierung der Gasentwicklung beim elektrochemischen Präzisionsabtragen*, In: Galvanotechnik, 106, 2015
ISSN 0016-4232

[128] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Evaluation of Gap Control Strategies in Jet Electrochemical Machining on Defined Shape Deviations*, In: Proceedings of the 10th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Rebschläger, 2014
ISBN 978-3-95735-010-7

[129] G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert, T. Petzold, J. Edelmann, A. Schubert: *Determination of the gas generation during precise electrochemical machining*, In: Proceedings of the 10th International Symposium on Electrochemical Machining Technology, Editors: D. Bähre, A. Rebschläger, 2014
ISBN 978-3-95735-010-7

[130] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, G. Meichsner, A. Schubert: *Analysis of the Electrochemical Removal of Aluminium Matrix Composites Using Multiphysics Simulation*, In: Proceedings of the European COMSOL Conference, 2014

[131] **M. Hackert-Oschätzchen**, M. Penzel, M. Kowalick, G. Meichsner, A. Schubert: *Transient Simulation of the Electrolyte Flow in a Closed Device for Precise Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2014

[132] S. Winkler, J. Edelmann, A. Schubert, **M. Hackert-Oschätzchen**: *Elektrochemisches Präzisionsabtragen - neue Möglichkeiten zur Formgebung schwer bearbeitbarer Werkstoffe*, In: Ingenieur-Spiegel, 3, 2014
ISSN 1868-5919

[133] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Analysis of Strategies for Gap Control in Jet Electrochemical Machining*, In: Proceedings of the 14th euspen International Conference, 2014
ISBN 978-0-9566790-3-1

[134] A. Schubert, H. Zeidler, A. Martin, **M. Hackert-Oschätzchen**, A. Martin, K. Kempen, J.-P. Kruth: *Jet-Electrochemical Machining of Selective Laser Melted Aluminum and Steel Alloys for Micro Injection Moulds*, In: Proceedings of the 14th euspen International Conference, 2014
ISBN 978-0-9566790-3-1

[135] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *An investigation into the influence of micro structures on nucleate boiling processes*, In: Proceedings of 13th International Conference on Simulation and Experiments in Heat Transfer and its Applications, 2014
https://doi.org/10.2495/HT140061

[136] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Application of Nucleate Boiling with Micro Structured Surfaces for Electronic Cooling*, In: Proceedings of the PCIM EUROPE, 2014
ISBN 978-3-8007-3603-4

[137] O. Kröning, M. Herzig, H.-P. Schulze, **M. Hackert-Oschätzchen**, R. Kühn, H. Zeidler, A. Schubert: *Resource-efficient machining of hard metals*, In: Key Engineering Materials, Volumes 611-612, 2014
https://doi.org/10.4028/www.scientific.net/KEM.611-612.708

[138] A. Schubert, G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert: *Ressourceneffiziente Gestaltung des elektrochemischen Präzisionsabtragens*, In: Galvanotechnik, 105, 2014
ISSN 0016-4232

[139] **M. Hackert-Oschätzchen**, L. Boenig, G. Meichsner, M. Zinecker, M. Krönert, A. Martin, A. Schubert: *Elektrochemisches Präzisionsabtragen rotierender Werkstücke*, In: Galvanotechnik, 105, 2014
ISSN 0016-4232

[140] M. M. Lohrengel, K.P. Rataj, N. Schubert, M. Schneider, S. Höhn, A. Michaelis, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Electrochemical Machining of Hard Metals - WC/Co as an example*, In: Powder Metallurgy, Volume 57,
https://doi.org/10.1179/1743290113Y.0000000062

[141] **M. Hackert-Oschätzchen**, L. Boenig, G. Meichsner, M. Zinecker, M. Krönert, A. Schubert: *Precise Electrochemical Machining of Rotating Workpieces*, In: Proceedings of the 9th International Symposium on Electrochemical Machining Technology, Editors: A. Schubert, M. Hackert-Oschätzchen, 2013
ISBN 978-3-942267-95-3

[142] B. Hommel, F. Jähn, M. Scharrnbeck, R. Garn, A. Lenk, **M. Hackert-Oschätzchen**, A. Schubert: *Edge Rounding of Micro Bores by Inverse Jet Electrochemical Machining*, In: Proceedings of the 9th International Symposium on Electrochemical Machining Technology, Editors: A. Schubert, M. Hackert-Oschätzchen, 2013
ISBN 978-3-942267-95-3

[143] H. Zeidler, A. Martin, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Jet Electrochemical Machining of Selective Laser Sintered Metals for Micro Injection Moulds*, In: Proceedings of the 9th International Symposium on Electrochemical Machining Technology, Editors: A. Schubert, M. Hackert-Oschätzchen, 2013
ISBN 978-3-942267-95-3

[144] A. Schubert, G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann: *Resource-Efficient Design of Precise Electrochemical Machining*, In: Proceedings of the 9th International Symposium on Electrochemical Machining Technology, Editors: A. Schubert, M. Hackert-Oschätzchen, 2013
ISBN 978-3-942267-95-3

[145] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert, B. Hommel, F. Jähn, M. Scharrnbeck, R. Garn, A. Lenk: *2D Axisymmetric Simulation of the Electrochemical Finishing of Micro Bores by Inverse Jet Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2013

[146] **M. Hackert-Oschätzchen**, R. Paul, M. Penzel, M. Zinecker, A. Schubert: *Simulation of Heat Transfer on Periodic Microstructured Surfaces for Evaporation Cooling*, In: Proceedings of the European COMSOL Conference, 2013

[147] **M. Hackert-Oschätzchen**, M. Kreißig, M. Kowalick, H. Zeidler, A. Schubert, O. Kröning, M. Herzig, H.-P. Schulze: *Single Discharge Simulations of Needle Pulses for Electrothermal Ablation*, In: Proceedings of the European COMSOL Conference, 2013

[148] **M. Hackert-Oschätzchen**, A. Martin, R. Kühn, G. Meichsner, M. Zinecker, A. Schubert: *Mikrostrukturierung von Hartmetall durch elektrochemisches Abtragen mit geschlossenem Freistrahl - Teil 2*, In: Galvanotechnik, 104, 2013

[149] **M. Hackert-Oschätzchen**, A. Martin, R. Kühn, G. Meichsner, M. Zinecker, A. Schubert: *Mikrostrukturierung von Hartmetall durch elektrochemisches Abtragen mit geschlossenem Freistrahl - Teil 1*, In: Galvanotechnik, 104, 2013

[150] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Determining of micro structuring technologies for nucleate boiling surfaces*, In: Proceedings of the 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, 2013

[151] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Energy-efficient cooling using microstructures for nucleate boiling process*, In: Proceedings of the PCIM EUROPE, 2013
ISBN 978-3-8007-3505-1

[152] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, M. Zinecker, A. Schubert: *Micro Structuring of Carbide Metals Applying Jet Electrochemical Machining*, In: Precision Engineering, Volume 37, Issue 3, 2013
https://doi.org/10.1016/j.precisioneng.2013.01.007

[153] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, M. Kowalick, H. Zeidler, A. Schubert: *Inverse Jet Electrochemical Machining for Functional Edge Shaping of Micro Bores*, In: Procedia CIRP, Volume 6, 2013
https://doi.org/10.1016/j.procir.2013.03.060

[154] A. Schubert, H. Zeidler, M. Hahn, **M. Hackert-Oschätzchen**, J. Schneider: *Micro-EDM Milling of Electrically Nonconducting Zirconia Ceramics*, In: Procedia CIRP, Volume 6, 2013
https://doi.org/10.1016/j.procir.2013.03.026

[155] A. Schubert, H. Zeidler, **M. Hackert-Oschätzchen**, J. Schneider, M. Hahn: *Enhancing Micro-EDM using Ultrasonic Vibration and Strategies for Machining of Nonconducting Ceramics*, In: Journal of Mechanical Engineering, Volume 59, Issue 3, 2013
https://doi.org/10.5545/sv-jme.2012.442

[156] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, A. Martin, J. Edelmann: *Präzises, elektrochemisches Mikro-Drahtschneiden*, In: Galvanotechnik, 104, 2013
ISSN 0016-4232

[157] **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Martin, A. Schubert: *Micro Machining with Continuous Electrolytic Free Jet*, In: Precision Engineering, Volume 36, Issue 4, 2012
https://doi.org/10.1016/j.precisioneng.2012.05.003

[158] A. Schubert, P. Steinert, T. Schmidt, **M. Hackert-Oschätzchen**: *Manufacturing of Tribologically Optimized Surfaces for Powertrain Applications*, In: Key Engineering Materials, Volumes 523-524, 2012
https://doi.org/10.4028/www.scientific.net/KEM.523-524.799

[159] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Effect of Tungsten Carbide Grain Size in Jet Electrochemical Machining*, In: Proceedings of the 8th International Symposium on Electrochemical Machining Technology, Editor: M. Zybura-Skrabalak, 2012
ISBN 978-83-931339-5-6

[160] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, A. Martin, J. Edelmann: *Micro Wire Cutting by Pulsed Electrochemical Machining*, In: Proceedings of the 8th International Symposium on Electrochemical Machining Technology, Editor: M. Zybura-Skrabalak, 2012
ISBN 978-83-931339-5-6

[161] A. Schubert, H. Zeidler, W. Meyer, M. Unger, **M. Hackert-Oschätzchen**: *Edge rounding of EDM micro bores using a plasma electrolytic polishing process*, In: Proceedings of the 8th International Symposium on Electrochemical Machining Technology, Editor: M. Zybura-Skrabalak, 2012
ISBN 978-83-931339-5-6

[162] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert: *Multiphysics Simulation of the Electrochemical Finishing of Micro Bores*, In: Proceedings of the European COMSOL Conference, 2012
ISBN 978-0-9839688-7-0

[163] **M. Hackert-Oschätzchen**, M. Penzel, P. Plänitz, A. Schubert: *Pseudo-3D Multiphysics Simulation of a Hydride Vapor Phase Epitaxy Reactor*, In: Proceedings of the European COMSOL Conference, 2012
ISBN 978-0-9839688-7-0

[164] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, H. Zeidler, J. Edelmann: *Micro Structured Surfaces for Thermodynamic Applications*, In: Proceedings of the euspen 3rd Topical Meeting - Structured and Freeform Surfaces, 2012

[165] **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Martin, A. Schubert: *Evaluierung des Einflusses des elektrischen Potenzials beim Jet-ECM*, In: Galvanotechnik, 103, 2012
ISSN 0016-4232

[166] **M. Hackert-Oschätzchen**, G. Meichsner, A. Martin, H. Zeidler, A. Schubert: *Fast Micromilling with Jet Electrochemical Machining*, In: Proceedings of the 29th Danubia-Adria Symposium, 2012
ISBN 978-86-7083-762-1

[167] H. Zeidler, M. Hahn, J. Schneider, **M. Hackert-Oschätzchen**, A. Schubert: *Accelerated Precision Manufacturing through Electro Discharge Machining with Ultrasonic Vibration Assistance*, In: Proceedings of the 29th Danubia-Adria Symposium, 2012
ISBN 978-86-7083-762-1

[168] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Micro Structuring of Carbide Metals with Jet Electrochemical Machining*, In: Proceedings of the 12th euspen International Conference, 2012
ISBN 978-0-9566790-0-0

[169] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, H. Zeidler: *Functional Edge Shaping of Micro Bores by Applying Electrochemical Machining*, In: Proceedings of the 12th euspen International Conference, 2012
ISBN 978-0-9566790-0-0

[170] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert-Oschätzchen**, J. Schneider: *Ultrasonic-Assisted Micro-EDM of Deep Bores: Process and Discharge Analysis*, In: Proceedings of the 12th euspen International Conference, 2012
ISBN 978-0-9566790-0-0

[171] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, M. Zinecker, J. Edelmann: *Präzise elektrochemische Bearbeitung von pulvermetallurgischen Stählen*, In: Galvanotechnik, 103, 2012
ISSN 0016-4232

[172] A. Schubert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Martin: *Evaluation of the Influence of the Electric Potential in Jet Electrochemical Machining*, In: Proceedings of the 7th International Symposium on Electrochemical Machining Technology, Editors: B. Mollay, M.M. Lohrengel, 2011
ISBN 978-3-00-036247-7

[173] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, M. Zinecker, J. Edelmann: *Pulsed Electrochemical Machining of Powder Metallurgy Steels*, In: Proceedings of the 7th International Symposium on Electrochemical Machining Technology, Editors: B. Mollay, M.M. Lohrengel, 2011
ISBN 978-3-00-036247-7

[174] **M. Hackert-Oschätzchen**, S. F. Jahn, A. Schubert: *Design of Electrochemical Machining Processes by Multiphysics Simulation*, In: Proceedings of the European COMSOL Conference, 2011
ISBN 978-0-9839688-0-1

[175] A. Schubert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, J. Edelmann: *Precision and Micro ECM with Localized Anodic Dissolution*, In: Proceedings of the 8th International Conference on Industrial Tools and Material Processing Technologies, Editor: J.M. Slabe, 2011
ISBN 978-961-6692-02-1

[176] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert-Oschätzchen**, J. Schneider: *Ultrasonic Assistance and Nonconductive Materials: Shifting the Boundaries of Micro-EDM*, In: Proceedings of the 8th International Conference on Industrial Tools and Material Processing Technologies, Editor: J.M. Slabe, 2011
ISBN 978-961-6692-02-1

[177] A. Schubert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker: *Design and realization of micro structured surfaces for thermodynamic applications*, In: Microsystem Technologies, Volume 17, Issue 9, 2011
https://doi.org/10.1007/s00542-011-1331-x

[178] A. Schubert, R. Neugebauer, D. Sylla, M. Avila, **M. Hackert-Oschätzchen**: *Manufacturing of surface microstructures for improved tribological efficiency of powertrain components and forming tools*, In: CIRP Journal of Manufacturing Science and Technology, Volume 4, Issue 2, 2011
https://doi.org/10.1016/j.cirpj.2011.01.010

[179] **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Precision Turning with localized anodic dissolution*, In: Proceedings of the 11th euspen International Conference, 2011
ISBN 978-0-9553082-9-1

[180] A. Schubert, J. Edelmann, D. Sylla, **M. Hackert-Oschätzchen**: *Structuring of tribological active surfaces for reduction of frictional losses*, In: Proceedings of the 11th euspen International Conference, 2011
ISBN 978-0-9553082-9-1

[181] A. Schubert, S. F. Jahn, B. Müller, **M. Hackert-Oschätzchen**: *Study on the Influence of the Forming Velocity in Micro Impact Extrusion with Modular Dies*, In: Proceedings of the 11th euspen International Conference, 2011
ISBN 978-0-9553082-9-1

[182] **M. Hackert-Oschätzchen**, G. Meichsner, H. Zeidler, M. Zinecker, A. Schubert: *Micro Machining of Different Steels with Closed Electrolytic Free Jet*, In: AIP Conference Proceedings, Volume 1353, 2011
https://doi.org/10.1063/1.3589702

[183] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert**: *Micro Electro Discharge Machining of Electrically Nonconductive Ceramics*, In: AIP Conference Proceedings, Volume 1353, 2011
https://doi.org/10.1063/1.3589696

[184] A. Schubert, J. Edelmann, S. Gross, H. Zeidler, G. Meichsner, **M. Hackert** N. Wolf, J. Schneider: *Micromanufacturing Of Hard To Machine Materials By Physical And Chemical Ablation Processes*, In: AIP Conference Proceedings, Volume 1315, 2011
https://doi.org/10.1063/1.3552360

[185] **M. Hackert**, G. Meichsner, A. Schubert: *Micro Turning with Closed Electrolytic Free Jet*, In: Proceedings of 6th International Symposium on Electrochemical Machining Technology, Editors: J. Deconinck, D. De Wilde, 2010
ISBN 978-90-5487-818-6

[186] **M. Hackert**, G. Meichsner, S. F. Jahn, A. Schubert: *Investigating the Influence of Dynamic Jet Shapes on the Jet Electrochemical Machining Process*, In: Proceedings of the European COMSOL Conference, 2010
ISBN 978-0-9825697-6-4

[187] A. Schubert, S. F. Jahn, **M. Hackert**: *Simulation of a Forming Process for Joining a Piezo Aluminium Module*, In: Proceedings of the European COMSOL Conference, 2010
ISBN 978-0-9825697-6-4

[188] S. F. Jahn, S. Ebert, **M. Hackert**, W. A. Goedel, A. Schubert, R. R. Baumann: *Simulation of the Mechanical Stability of Inkjet-Printed Hierarchical Microsieves*, In: Proceedings of the European COMSOL Conference, 2010
ISBN 978-0-9825697-6-4

[189] **M. Hackert**, A. Schubert, G. Meichsner: *Abtragende Fertigung mikrostrukturierter Oberflächen mit geschlossenem elektrolytischem Freistrahl*, In: Galvanotechnik, 101, 2010
ISSN 0016-4232

[190] A. Schubert, R. Neugebauer, D. Sylla, M. Avila, **M. Hackert**: *Fertigungs- und Oberflächentechnologien für anforderungsgerechte, tribologisch effiziente Oberflächen von Umformwerkzeugen und Powertrain-Bauteilen*, In: Tagungsband zum 1. Internationalen Kolloquium des Spitzentechnologieclusters eniPROD, Herausgeber: R. Neugebauer, 2010
ISBN 978-3-942267-00-7

[191] A. Schubert, R. Pohl, **M. Hackert**: *Micro Impact Extrusion of Precision Cavities with Modular Dies*, In: Proceedings of the 10th euspen International Conference, 2010
ISBN 978-0-9553082-8-4

[192] **M. Hackert**: *Entwicklung und Simulation eines Verfahrens zum elektrochemischen Abtragen von Mikrogeometrien mit geschlossenem elektrolytischen Freistrahl*, In: A. Schubert (Hrsg.): Scripts Precision and Microproduction Engineering, Band 2, 2010
ISBN 978-3-937524-95-5

[193] **M. Hackert**, G. Meichsner, A. Schubert: *Generating plane and microstructured surfaces applying Jet Electrochemical Machining*, In: Proceedings of 5th International Symposium on Electrochemical Machining Technology, Editors: A. Michaelis, M. Schneider, 2009
ISBN 978-3-8396-0076-4

[194] **M. Hackert**, A. Schubert, G. Meichsner: *Simulation of a Heated Tool System for Jet Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2009
ISBN 978-0-9825697-2-6

[195] A. Schubert, **M. Hackert**, G. Meichsner: *Simulating the Influence of the Nozzle Diameter on the Shape of Micro Geometries Generated with Jet Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2009
ISBN 978-0-9825697-2-6

[196] A. Schubert, R. Pohl, **M. Hackert**: *Simulation of a Modular Die Stamp for Micro Impact Extrusion*, In: Proceedings of the European COMSOL Conference, 2009
ISBN 978-0-9825697-2-6

[197] A. Schubert, **M. Hackert**, G. Meichsner: *Elektrochemisches Strukturieren von Oberflächen mit geschlossenem elektrolytischen Freistrahl*, In: Tagungsband zum 12. Werkstofftechnischen Kolloquium, 2009
ISBN 978-3-00-029007-7

[198] **M. Hackert**, G. Meichsner, A. Schubert: *Simulation of the Shape of Micro Geometries generated with Jet Electrochemical Machining*, In: Proceedings of the European COMSOL Conference, 2008
ISBN 978-0-9766792-3-3

[199] A. Schubert, **M. Hackert**: *Blick in den Elektrolytstrahl*, In: Mikroproduktion, 4, 2008
ISSN 1614-4538

[200] **M. Hackert**, G. Meichsner, A. Schubert: *Generating Micro Geometries with Air assisted Jet Electrochemical Machining*, In: Proceedings of the euspen 10th Anniversary International Conference, Editors: H. van Brussel, E. Brinksmeier, H. Spaan, T. Burke, 2008
ISBN 978-0-9553082-5-3

[201] **M. Hackert**, G. Meichsner, A. Schubert: *Fast Micro Structuring with Electrolyte Jet Machining*, In: Proceedings of the 4th International Symposium on Electrochemical Machining Technology, Editor: A. Schubert, 2007
ISBN 978-3-00-022770-7

[202] **M. Hackert**, G. Meichsner, A. Schubert: *Electrochemical Machining of Carbide Metal Micro Tools*, In: Proceedings of the 7th euspen International Conference, Editor: E. Thornett, 2007
ISBN 978-0-9553082-2-2

[203] P. Häussler, J. Barzola-Quiquia, D. Hauschild, J. Rauchhaupt, M. Stiehler, **M. Hackert**: *Spherical periodicity, a general feature of matter at its early stages of formation*, In: Science of Complex Alloy Phases, 43-86, TMS The Minerals, Metals & Materials Society , 2005
ISBN 0-87339-593-X

[204] T. G. Gopakumar, M. Lackinger, **M. Hackert**, F. Müller, M. Hietschold: *Adsorption of Palladium Phtalocyanine on Graphite (0001): an STM and LEED study*, In: J. Phys. Chem. B, 1008, 2004
https://doi.org/10.1021/jp037751i

Talks

[205] R. Petermann, P. Plänitz, C. Lerez, V. Kovtun, M. Sahib, A. Neu, **M. Hackert-Oschätzchen**: *Prediction of Surface Roughness in Dry Milling of Stainless Steel AISI 304 applying Deep Learning and CRNN-BiGRU-Attention Network*, 20th CIRP Conference on Intelligent Computation in Manufacturing Engineering (CIRP-ICME 2026), Naples, Italy, 08.07.2026

[206] T. Namboodri, C. Felhö, I. Sztankovics, C. Lerez, R. Petermann, **M. Hackert-Oschätzchen**: *AI Framework for Position-Dependent Chatter Prediction in Thin-Walled Turning of Stainless Steel*, 20th CIRP Conference on Intelligent Computation in Manufacturing Engineering (CIRP-ICME 2026), Naples, Italy, 08.07.2026

[207] J. Diedrich, S. Tetora, C. Lerez, **M. Hackert-Oschätzchen**: *Untersuchung von Qualitätsmerkmalen von und Ableitung eines Bewertungsschemas für Instandhaltungsdokumentation*, AUTOMATION 2026, Baden-Baden, Germany, 17.06.2026

[208] R. Petermann, S. Nickel, L. Berg, P. Clauß, G. Meichsner, **M. Hackert-Oschätzchen**: *Influence of Process Input Parameters on the Reproducibility of Microstructures on Stainless Steel 304 in Pulsed Electrochemical Machining*, 8th CIRP Conference on Surface Integrity (CIRP-CSI 2026), Yokohama, Japan, 21.05.2026

[209] N. Paucke, M. Beutner, A. Lümkemann, K. Thomas, M. Učík, H. Bolvardi, **M. Hackert-Oschätzchen**: *Influence of the Crystal Structure of AlCrN on Tool Coating Properties and Wear in Dry Gear Hobbing*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 28.04.2026

[210] R. Petermann, G. Meichsner, P. Clauß, S. Nickel, **M. Hackert-Oschätzchen**: *Estimation of the Lateral Gap in PECM: A Case Study on Tool Steel S390*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 27.04.2026

[211] A. Thielecke, P. Clauß, G. Meichsner, P. Damm, G. Jungblut, M. Schäfer, **M. Hackert-Oschätzchen**: *Modulated Pulsed Electrochemical Machining of Tungsten Carbide–cobalt: An Experimental Study According to DIN SPEC 91399*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 27.04.2026

[212] C. Lerez, R. Petermann, C. Felhö, T. Namboodri, A. Neu, N. Szűcs, M. M. Sahib, P. Plänitz, **M. Hackert-Oschätzchen**: *Surface Roughness Prediction in Turning Stainless Steel Applying Deep Learning and LSTM Networks*, International Conference on Industry of the Future and Smart Manufacturing (ISM), Malta, 12.11.2025

[213] J. Diedrich, R. Mahboubfar, S. Byba, C. Lerez, **M. Hackert-Oschätzchen**: *Analysis of User expectations and Formats of AI-generated Step-by-Step Instructions for Industrial Maintenance*, International Conference on Industry of the Future and Smart Manufacturing (ISM), Malta, 12.11.2025

[214] R. Petermann, P. Clauß, G. Meichsner, F. Meyer, S. Nickel, **M. Hackert-Oschätzchen**: *Analysis of repeatability for experimental characterization of lateral gap during Pulsed Electrochemical Machining*, 21st International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany, 03.11.2025

[215] R. Petermann, P. Clauß, G. Meichsner, F. Meyer, **M. Hackert-Oschätzchen**: *Experimental characterisation of lateral machining gap during Pulsed Electrochemical Machining for corrosion resistant tool steel*, 22nd CIRP Conference on Electro Physical and Chemical Machining (ISEM), Vancouver, Canada, 03.06.2025

[216] R. Petermann, P. Clauß, G. Meichsner, J. Vogel, **M. Hackert-Oschätzchen**: *Method for the Characterisation of the Material Removal in Modulated Pulsed Electrochemical Machining*, 22nd CIRP Conference on Electro Physical and Chemical Machining (ISEM), Vancouver, Canada, 02.06.2025

[217] A. Thielecke, P. Clauß, R. Petermann, G. Meichsner, P. Damm, L. Berg, G. Jungblut, M. Schäfer, **M. Hackert-Oschätzchen**: *Experimental investigation of electrochemical precision machining process for tungsten carbide-cobalt applying sodium nitrate electrolyte*, 22nd CIRP Conference on Electro Physical and Chemical Machining (ISEM), Vancouver, Canada, 02.06.2025

[218] A. Riefer, P. Plänitz, G. Meichsner, **M. Hackert-Oschätzchen**: *Determination of the NaCl electrolyte viscosity from reactive force field molecular dynamics simulations*, 20th CIRP Conference on Modelling of Machining Operations (CMMO), Mons, Belgium, 22.05.2025

[219] N. Paucke, A. Thielecke, R. Petermann, G. Meichsner, **M. Hackert-Oschätzchen**: *Transient 3D Simulation of electrolyte flow in an ablation device for the determination of process input parameters according to DIN SPEC 91399*, 20th CIRP Conference on Modelling of Machining Operations (CMMO), Mons, Belgium, 22.05.2025

[220] N. Paucke, M. Beutner, P. Damm, G. Meichsner, G. Hahn, D. Zimmermann, M. Steffens, **M. Hackert-Oschätzchen**: *Tool wear analysis in hobbing high torque splined shafts*, 28th International ESAFORM Conference on Material Forming, Paestum, Italy, 07.05.2025

[221] P. Plänitz, R. Petermann, A. Shemchuk, S. Majcherek, M. Barth, **M. Hackert-Oschätzchen**: *Concept and prototype of a 3-component extruder for fusion deposition of vibration-damping polymer concrete*, 28th International ESAFORM Conference on Material Forming, Paestum, Italy, 07.05.2025

[222] P. Damm, D. Groschupp, L. Berg, A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**: *Investigation of post-processing of additively manufactured stainless steel by electrochemical jet machining*, 28th International ESAFORM Conference on Material Forming, Paestum, Italy, 08.05.2025

[223] C. Lerez, C. Michaelis, L. Zak, L. Blumenröhr, **M. Hackert-Oschätzchen**: *Investigation on the surface integrity in electrical discharge machining of Co-Cr-Mo*, 28th International ESAFORM Conference on Material Forming, Paestum, Italy, 08.05.2025

[224] A. Thielecke, P. Clauß, M. Schröder, G. Meichsner, R. Petermann, P. Damm, **M. Hackert-Oschätzchen**: *Experimental derivation of process input parameters for electrochemical precision machining of additively and conventionally produced 316L stainless steel*, 28th International ESAFORM Conference on Material Forming, Paestum, Italy, 09.05.2025

[225] P. Damm, M. Adinehvand, M. Beutner, G. Meichsner, G. Hahn, D. Zimmermann, M. Steffens, **M. Hackert-Oschätzchen**: *Analysis of the influence of the initial surface integrity on the result of burnished high torque splined shafts*, 27th International ESAFORM Conference on Material Forming, Toulouse, France, 25.04.2024

[226] R. Petermann, P. Clauß, P. Damm, G. Meichsner, **M. Hackert-Oschätzchen**: *Experimental Derivation of Process Input Parameters for Electrochemical Precision Machining of a Powder Metallurgical Tool Steel*, 27th International ESAFORM Conference on Material Forming, Toulouse, France, 26.04.2024

[227] A. Thielecke, **M. Hackert-Oschätzchen**, G. Meichsner, T. Berger, S. Loebel, A. Martin, R. Schulze, A. Schubert: *Simulation-based analysis of electrical current induction in a device for electrochemical precision machining of Nd-Fe-B permanent magnets*, 27th International ESAFORM Conference on Material Forming, Toulouse, France, 26.04.2024

[228] V. Artiushenko, S. Lang, C. Lerez, T. Reggelin, **M. Hackert-Oschätzchen**: *Resource-efficient Edge AI solution for predictive maintenance*, 5th International Conference on Industry 4.0 and Smart Manufacturing (ISM), Lisbon, Portugal, 23.11.2023

[229] A. Martin, T. Berger, S. Loebel, R. Schulze, A. Thielecke, **M. Hackert-Oschätzchen**, A. Schubert: *Accuracy of pulsed electrochemical machining of NdFeB rotor magnets*, 19th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 14.11.2023

[230] A. Riefer, **M. Hackert-Oschätzchen**, G. Meichsner, P. Plänitz: *Derivation of parameter sets for the ReaxFF+ method for modeling an electrochemical machining process*, 19th CIRP Conference on Modelling of Machining Operations (CMMO), Karlsruhe, Germany, 31.05.2023

[231] A. Thielecke, **M. Hackert-Oschätzchen**, N. Komilov, G. Meichsner, T. Petzold, S. Loebel, A. Martin, R. Schulze, A. Schubert: *Simulation-based analysis of electrical current induction in electrochemical precision machining of Nd-Fe-B permanent magnets*, 19th CIRP Conference on Modelling of Machining Operations (CMMO), Karlsruhe, Germany, 31.05.2023

[232] P. Damm, G. Meichsner, C. Lerez, **M. Hackert-Oschätzchen**: *Design of a user-friendly human machine interface for jet electrochemical machining*, 26th International ESAFORM Conference on Material Forming, Kraków, Poland, 21.04.2023

[233] A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**: *Digital twin for the determination of process input variables for electrochemical precision machining according to DIN SPEC 91399*, 26th International ESAFORM Conference on Material Forming, Kraków, Poland, 21.04.2023

[234] S. Loebel, T. Petzold, A. Martin, P. Steinert, A. Schubert, A. Thielecke, G. Meichsner, **M. Hackert-Oschätzchen**, R. Schulze: *Comparison of electrochemical removal characteristics between magnetized and demagnetized NdFeB*, 18th International Symposium on Electrochemical Machining Technology (INSECT), Tokyo, Japan, 14.11.2022

[235] J. Hülsmann, F. Reuter, M. Beutner, M. Wacker, **M. Hackert-Oschätzchen**, C.-D. Ohl, K. Bettenbrock, G. Janiga, M. P. Scherner, J. Wippermann: *How to optimize coronary artery bypass graft prosthesis based on bacterial nanocellulose*, 5th International Symposium on Bacterial Cellulose, Jena, Germany, 22.09.2022

[236] S. Grießbach, **M. Hackert-Oschätzchen**, M. Kausch, J. Grießbach: *Non-destructive evaluation of mechanical properties of additive manufactured plastic parts by practical application of DIN SPEC 17028:2021-04*, ASTM International Conference on Additive Manufacturing (ASTM ICAM), Anaheim, USA, 02.11.2021

[237] T. Wienand, G. Meichsner, **M. Hackert-Oschätzchen**: *Jet electrochemical machining simulation of intersecting line removals with adjustable nozzle diameter by a finite area element grid*, 18th CIRP Conference on Modelling of Machining Operations (CMMO), Ljubljana, Slovenia, 16.06.2021

[238] G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**: *Experimental Characterization of Resource Efficient Process Chains for Electrochemical Precision Machining of Form-bore Patterns*, 20th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Zurich, Switzerland, 20.01.2021

[239] I. Schaarschmidt, **M. Hackert-Oschätzchen**, G. Meichsner, P. Steinert, M. Zinecker, A. Schubert: *Working Gap Analysis in Electrochemical Precision Machining of External Geometries with Ring Cathodes*, 20th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Zurich, Switzerland, 20.01.2021

[240] I. Danilov, R. Paul, **M. Hackert-Oschätzchen**, M. Zinecker, S. Quitzke, A. Schubert: *Random Sequential Simulation of the Resulting Surface Roughness in Plasma Electrolytic Polishing of Stainless Steel*, 20th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Zurich, Switzerland, 20.01.2021

[241] T. Berger, M. Herzig, **M. Hackert-Oschätzchen**, H.-P. Schulze, A. Martin, O. Kröning, A. Schubert: *Experimental Characterisation of a High Dynamic Piezo Module for Resource-efficient Electrothermal Precision Ablation*, 20th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Zurich, Switzerland, 20.01.2021

[242] T. Wienand, G. Meichsner, **M. Hackert-Oschätzchen**: *Transient Removal Simulation of the Jet Electrochemical Machining Process based on a Finite Area Element Grid*, 16th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany, 24.11.2020

[243] T. Petzold, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Deburring and Edge Shaping by Electrochemical Machining with Differentially Switched Currents*, 15th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 15.11.2019

[244] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, T. Petzold, M. Zinecker, A. Schubert: *Modelling of Precise Electrochemical Machining for Nickel-based Centrifugal Impellers*, 15th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 15.11.2019

[245] S. Schröder, A. Martin, V. Kahle, **M. Hackert-Oschätzchen**, A. Schubert: *Removal rate and surface roughness in plasma-electrolytic polishing of 1.4441 stainless steel*, 15th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 15.11.2019

[246] S. Quitzke, A. Martin, **M. Hackert-Oschätzchen**, H. Zeidler, A. Schubert: *Process Design for Jet Plasma electrolytic Polishing of Stainless Steel*, 15th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 15.11.2019

[247] I. Schaarschmidt, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Implementation of the Machine Tool-Specific Current and Voltage Control Characteristics in Multiphysics Simulation of Electrochemical Precision Machining*, 17th CIRP Conference on Modelling of Machining Operations (CMMO), Sheffield, United Kingdom, 13.06.2019

[248] R. Paul, **M. Hackert-Oschätzchen**, I. Danilov, M. Yahyavi Zanjani, A. Schubert: *3D Multiphysics Simulation of Jet Electrochemical Machining of Intersecting Line Removals*, 17th CIRP Conference on Modelling of Machining Operations (CMMO), Sheffield, United Kingdom, 13.06.2019

[249] **M. Hackert-Oschätzchen**, R. Paul, A. Schubert: *Multiphysics Simulation of Oxide Layer Growth in Localized Anodization of Aluminum Applying a Free-Surface Electrolyte Jet*, 17th CIRP Conference on Modelling of Machining Operations (CMMO), Sheffield, United Kingdom, 13.06.2019

[250] **M. Hackert-Oschätzchen**: *Erfahrungsaustausch zur Einbindung studentischer Arbeiten in Promotionsvorhaben*, Doktoranden-Werkstatt des Kompetenzzentrums Mikrofertigungs- und Oberflächentechnologien KoMOT, Breitenbrunn, Germany, 23.03.2019

[251] R. Morgenstern, A. Martin, N. Lehnert, I. Scharf, **M. Hackert-Oschätzchen**, A. Schubert, T. Lampke: *Localized anodization of the aluminum alloy en AW-7075 T6 by closed electrolytic free jet*, 21. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 06.03.2019

[252] T. Petzold, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Simulation-based Design of an Electrolyte System for Electrochemical Machining with Differentially Switched Currents*, International Conference on Competitive Manufacturing (COMA), Stellenbosch, South Africa, 01.02.2019

[253] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Simulation-based Design of Electrochemical Machining Processes for Microstructuring of High-strength Materials*, 14th International Symposium on Electrochemical Machining Technology (INSECT), Aachen, Germany, 28.11.2018

[254] A. Martin, T. Petzold, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Experimental Derivation of Process Input Parameters for Electrochemical Machining with Differentially Switched Currents*, 14th International Symposium on Electrochemical Machining Technology (INSECT), Aachen, Germany, 27.11.2018

[255] G. Meichsner, **M. Hackert-Oschätzchen**, S. Loebel, L. Boenig, A. Schubert, M. Putz: *Characterization of the Lateral Working Distance in Precise Electrochemical Machining of Differently Heat Treated Steel*, 14th International Symposium on Electrochemical Machining Technology (INSECT), Aachen, Germany, 27.11.2018

[256] S. Quitzke, O. Kröning, A. Martin, **M. Hackert-Oschätzchen**, H.-P. Schulze, C. Kranhold, H. Zeidler, A. Schubert: *Design of a Test Rig for Local Surface Modification by Jet Plasma Electrolytic Polishing*, 14th International Symposium on Electrochemical Machining Technology (INSECT), Aachen, Germany, 27.11.2018

[257] I. Danilov, **M. Hackert-Oschätzchen**, I. Schaarschmidt, M. Zinecker, A. Schubert: *Transient Simulation of the Removal Process in Plasma Electrolytic Polishing of Stainless Steel*, European COMSOL Conference, Lausanne, Switzerland, 24.10.2018

[258] I. Schaarschmidt, P. Steinert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Simulation-based Analysis of a Microstructuring Process for Bolt Surfaces with Increased Friction*, European COMSOL Conference, Lausanne, Switzerland, 23.10.2018

[259] S. Loebel, **M. Hackert-Oschätzchen**, R. Paul, G. Meichsner, A. Schubert: *Simulationsbasierte Gestaltung von elektrochemischen Abtragprozessen für hochfeste Materialien*, 1. Kolloquium der sächsischen Allianz für Material- und ressourceneffiziente Technologien, Chemnitz, Germany, 31.05.2018

[260] N. Lehnert, G. Meichsner, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Study on the Influence of the Processing Speed in the Generation of Complex Geometries in Aluminium Matrix Composites by Electrochemical Precision Machining*, 19th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Bilbao, Spain, 26.04.2018

[261] T. Berger, H.-P. Schulze, **M. Hackert-Oschätzchen**, M. Herzig, O. Kröning, A. Schubert: *Design of a High Dynamic Piezo Module for Resource-efficient Electrothermal Precision Ablation*, 19th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Bilbao, Spain, 26.04.2018

[262] A. Martin, **M. Hackert-Oschätzchen**, N. Lehnert, A. Schubert: *Analysis of the Fundamental Removal Geometry in Electrochemical Profile Turning with Continuous Electrolytic Free Jet*, 19th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Bilbao, Spain, 25.04.2018

[263] N. Lehnert, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Derivation of Guidelines for Reliable Finishing of Aluminium Matrix Composites by Jet Electrochemical Machining*, 19th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Bilbao, Spain, 25.04.2018

[264] **M. Hackert-Oschätzchen**: *Einbindung studentischer Arbeiten in Promotionsvorhaben – ein Erfahrungsaustausch*, Doktoranden-Werkstatt des Kompetenzzentrums Mikrofertigungs- und Oberflächentechnologien KoMOT, Marienberg, Germany, 17.03.2018

[265] **M. Hackert-Oschätzchen**, A. Nestler, N. Lehnert, G. Meichsner, A. Schubert: *Erzeugung definierter Oberflächen bei der Endformgebung von partikelverstärkten Aluminiummatrix-Verbundwerkstoffen*, 20. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 14.03.2018

[266] **M. Hackert-Oschätzchen**: *Zusammenarbeit bei Projektakquise und Projektdurchführung*, Vollversammlung des Kompetenzzentrums Mikrofertigungs- und Oberflächentechnologien KoMOT, Chemnitz, Germany, 24.01.2018

[267] A. Martin, **M. Hackert-Oschätzchen**, N. Lehnert, A. Schubert: *Analysis of the Removal Geometry in Electrochemical Straight Turning with Continuous Electrolytic Free Jet*, 13th International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 01.12.2017

[268] M. Yahyavi Zanjani, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Evaluation of On-Machine Gap Measurement Strategies in Jet-Electrochemical Machining*, 13th International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 01.12.2017

[269] S. Loebel, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Development of Interfaces for Material Data Integration in Models of Electrochemical Machining Processes*, 13th International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 30.11.2017

[270] G. Meichsner, T. Petzold, **M. Hackert-Oschätzchen**, J. Edelmann, A. Schubert, M. Putz, G. Hahn: *Reduplication of Precise Internal Geometries by Pulsed Electrochemical Machining*, 13th International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 30.11.2017

[271] R. Paul, **M. Hackert-Oschätzchen**, M. Zinecker, A. Schubert: *Approximation of the Flow Field in Electrochemical Machining Incorporating Pressure Drop Calculation*, European COMSOL Conference, Rotterdam, The Netherlands, 19.10.2017

[272] I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Multiscale Model of the PECM with Oscillating Cathode for External Geometries using a Virtual Switch*, European COMSOL Conference, Rotterdam, The Netherlands, 19.10.2017

[273] R. Schimmelpfennig, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Microstructuring of Joining Areas in Aluminum Alloy Sheets by Jet Electrochemical Machining*, International Merge Technologies Conference, Chemnitz, Germany, 22.09.2017

[274] I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Multiscale Multiphysics Simulation of a Pulsed Electrochemical Machining Process with Oscillating Cathode for Microstructuring of Impact Extrusion Punches*, 16th CIRP Conference on Modelling of Machining Operations (CMMO), Cluny, France, 16.06.2017

[275] **M. Hackert-Oschätzchen**, R. Paul, M. Kowalick, D. Kuhn, G. Meichsner, M. Zinecker, A. Schubert: *Characterization of an Electrochemical Machining Process for Precise Internal Geometries by Multiphysics Simulation*, 16th CIRP Conference on Modelling of Machining Operations (CMMO), Cluny, France, 15.06.2017

[276] M. Herzig, T. Berger, H.-P. Schulze, **M. Hackert-Oschätzchen**, O. Kröning, A. Schubert: *Modification of the process dynamics in micro-EDM by means of an additional piezo-control system*, 20th International ESAFORM Conference on Material Forming, Dublin, Ireland, 26.04.2017

[277] A. Schubert, T. Berger, A. Martin, **M. Hackert-Oschätzchen**, N. Treffkorn, R. Kühn: *Surface Structuring of Boron Doped CVD Diamond by Micro Electrical Discharge Machining*, 20th International ESAFORM Conference on Material Forming, Dublin, Ireland, 26.04.2017

[278] R. Kühn, T. Berger, M. Prieske, R. Börner, **M. Hackert-Oschätzchen**, H. Zeidler, A. Schubert: *Deposition and Micro Electrical Discharge Machining of CVD-Diamond Layers Incorporated with Silicon*, 20th International ESAFORM Conference on Material Forming, Dublin, Ireland, 26.04.2017

[279] D. Kuhn, A. Martin, C. Eckart, M. Sieber, R. Morgenstern, **M. Hackert-Oschätzchen**, T. Lampke, A. Schubert: *Localised anodic oxidation of aluminium material using a continuous electrolyte jet*, 19. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 17.03.2017

[280] **M. Hackert-Oschätzchen**: *Einbindung studentischer Arbeiten in Promotionsvorhaben*, Doktoranden-Werkstatt des Kompetenzzentrums Mikrofertigungs- und Oberflächentechnologien KoMOT, Breitenbrunn, Germany, 18.03.2017

[281] G. Meichsner, **M. Hackert-Oschätzchen**, R. Wertheim, J. Edelmann, A. Schubert, M. Putz: *New Method to define Material Removal Characteristics in PECM - Pulsed Electro Chemical Machining*, 34th Israeli Conference on Mechanical Engineering, Haifa, Israel, 23.11.2016

[282] A. Spille-Kohoff, G. Meichsner, **M. Hackert-Oschätzchen**, R. Schulze, S. Busan: *3D CFD Simulation of Electrochemical Machining Based on Dissolving Characteristics within the SIREKA Joint Research Project*, 12th International Symposium on Electrochemical Machining Technology (INSECT), Mechelen, Belgium, 18.11.2016

[283] **M. Hackert-Oschätzchen**, N. Lehnert, G. Meichsner, C. Scherf, A. Martin, A. Schubert: *Experimental Derivation of Processing Strategies for Electrochemical Precision Machining of Aluminium Matrix Composites*, 12th International Symposium on Electrochemical Machining Technology (INSECT), Mechelen, Belgium, 17.11.2016

[284] A. Martin, D. Kuhn, **M. Hackert-Oschätzchen**, A. Schubert: *Design and Realisation of a Specific Device for Jet Electrochemical Machining of Rotating Work Pieces*, 12th International Symposium on Electrochemical Machining Technology (INSECT), Mechelen, Belgium, 17.11.2016

[285] G. Meichsner, **M. Hackert-Oschätzchen**, T. Petzold, M. Krönert, J. Edelmann, A. Schubert, M. Putz: *Removal Characteristic of Stainless Steel in Pulsed Electrochemical Machining*, 12th International Symposium on Electrochemical Machining Technology (INSECT), Mechelen, Belgium, 17.11.2016

[286] **M. Hackert-Oschätzchen**, M. Kowalick, R. Funke, A. Schubert: *Unterstützung des selbstorganisierten Lernens im Rahmen der Betreuung studentischer Arbeiten*, HDS.Forum, Dresden, Germany, 11.11.2016

[287] **M. Hackert-Oschätzchen**, M. Penzel, M. Kreißig, M. Kowalick, M. Zinecker, G. Meichsner, A. Schubert: *Transient Simulation of an Electrochemical Machining Process for Stamping and Extrusion Dies*, European COMSOL Conference, Munich, Germany, 14.10.2016

[288] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, C. Scherf, A. Martin, A. Schubert: *Analysis of an Electrochemical Machining Process for Particle Reinforced Aluminium Matrix Composites*, European COMSOL Conference, Munich, Germany, 13.10.2016

[289] **M. Hackert-Oschätzchen**, M. Kowalick, R. Paul, M. Zinecker, D. Kuhn, G. Meichsner, A. Schubert: *2-D Axisymmetric Simulation of the Electrochemical Machining of Internal Precision Geometries*, European COMSOL Conference, Munich, Germany, 13.10.2016

[290] **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, G. Meichsner, A. Schubert: *Surface Characterization of Particle Reinforced Aluminum-Matrix Composites Finished by Pulsed Electrochemical Machining*, 3rd CIRP Conference on Surface Integrity (CSI), Charlotte, USA, 10.06.2016

[291] G. Meichsner, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann, A. Schubert, M. Putz: *Fast Determination of the Material Removal Characteristics in Pulsed Electrochemical Machining*, 7th CIRP Conference on High Performance Cutting (HPC), Chemnitz, Germany,

[292] A. Schubert, H. Zeidler, R. Kühn, **M. Hackert-Oschätzchen**, S. Flemmig, N. Treffkorn: *Investigation of Ablation Behaviour in Micro-EDM of Nonconductive Ceramic Composites ATZ and Si3N4-TiN*, 18th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Tokyo, Japan, 21.04.2016

[293] A. Schubert, **M. Hackert-Oschätzchen**, A. Martin, S. Winkler, D. Kuhn, G. Meichsner, H. Zeidler, J. Edelmann: *Generation of Complex Surfaces by Superimposed Multi-dimensional Motion in Electrochemical Machining*, 18th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Tokyo, Japan, 20.04.2016

[294] **M. Hackert-Oschätzchen**: *Antworten auf die hochschuldidaktischen Herausforderungen in der Betreuung studentischer Arbeiten*, Doktoranden-Werkstatt des Kompetenzzentrums Mikrofertigungs- und Oberflächentechnologien KoMOT, Breitenbrunn, Germany, 19.03.2016

[295] **M. Hackert-Oschätzchen**, R. Morgenstern, N. Lehnert, A. Martin, T. Lampke, A. Schubert: *Basic Research on Electrochemical Machining of Particle Reinforced Aluminium Matrix Composites*, 11th International Symposium on Electrochemical Machining Technology (INSECT), Linz, Austria, 12.11.2015

[296] A. Spille-Kohoff, R. Schulze, G. Meichsner, **M. Hackert-Oschätzchen**, S. Busan: *Optimized design of electrochemical machining processes by a combination of 3D simulation and rapid prototyping of cathodes*, 11th International Symposium on Electrochemical Machining Technology (INSECT), Linz, Austria, 12.11.2015

[297] G. Meichsner, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann, A. Schubert, G. Hahn, M. Putz: *Characterisation of the Influence of Material Hardness in Precise Electrochemical Machining of Steel*, 17th International Conference on the Strength of Materials (ICSMA), Brno, Czech Republic, 11.08.2015

[298] **M. Hackert-Oschätzchen**, R. Paul, M. Kowalick, A. Martin, G. Meichsner, A. Schubert: *Multiphysics Simulation of the Material Removal in Jet Electrochemical Machining*, 15th CIRP Conference on Modelling of Machining Operations (CMMO), Karlsruhe, Germany, 11.06.2015

[299] O. Kröning, M. Herzig, **M. Hackert-Oschätzchen**, R. Kühn, H. Zeidler, A. Schubert: *Micro Electrical Discharge Machining of Tungsten Carbide with Ultra-Short Pulse*, 18th International ESAFORM Conference, Graz, Austria, 15.04.2015

[300] H. Zeidler, A. Martin, M. Kowalick, **M. Hackert-Oschätzchen**, A. Schubert: *Analysis of a PECM Electrode Concept for Micro Injection Moulds by Multiphysics Simulation*, 4M/ICOMM2015 Conference, Milan, Italy, 31.03.2015

[301] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Evaluation of Gap Control Strategies in Jet Electrochemical Machining on Defined Shape Deviations*, 10th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 13.11.2014

[302] G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert, T. Petzold, J. Edelmann, A. Schubert: *Determination of the gas generation during precise electrochemical machining*, 10th International Symposium on Electrochemical Machining Technology (INSECT), Saarbrücken, Germany, 13.11.2014

[303] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, G. Meichsner, A. Schubert: *Analysis of the Electrochemical Removal of Aluminium Matrix Composites Using Multiphysics Simulation*, European COMSOL Conference, Cambridge, United Kingdom, 18.09.2014

[304] **M. Hackert-Oschätzchen**, M. Penzel, M. Kowalick, G. Meichsner, A. Schubert: *Transient Simulation of the Electrolyte Flow in a Closed Device for Precise Electrochemical Machining*, European COMSOL Conference, Cambridge, United Kingdom, 17.09.2014

[305] A. Schubert, **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, G. Meichsner: *Charakterisierung des elektrochemischen Abtragverhaltens von Aluminiummatrix-Verbundwerkstoffen*, 17. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 11.09.2014

[306] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *An investigation into the influence of micro structures on nucleate boiling processes*, 13th International Conference on Simulation and Experiments in Heat Transfer and its Applications, A Coruña, Spain, 03.07.2014

[307] O. Kröning, M. Herzig, H.-P. Schulze, **M. Hackert-Oschätzchen**, R. Kühn, H. Zeidler, A. Schubert: *Resource-efficient machining of hard metals*, 17th International ESAFORM Conference, Espoo, Finland, May 2014

[308] **M. Hackert-Oschätzchen**: *Jet-ECM und Multiphysiksimulation*, Praxis-Workshop Elektrochemisches Abtragen des Fraunhofer IWU , Chemnitz, Germany , 13.02.2014

[309] **M. Hackert-Oschätzchen**, L. Boenig, G. Meichsner, M. Zinecker, M. Krönert, A. Schubert: *Precise Electrochemical Machining of Rotating Workpieces*, 9th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany , 12.11.2013

[310] B. Hommel, F. Jähn, M. Scharrnbeck, R. Garn, A. Lenk, **M. Hackert-Oschätzchen**, A. Schubert: *Edge Rounding of Micro Bores by Inverse Jet Electrochemical Machining*, 9th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany , 12.11.2013

[311] H. Zeidler, A. Martin, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Jet Electrochemical Machining of Selective Laser Sintered Metals for Micro Injection Moulds*, 9th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany , 12.11.2013

[312] A. Schubert, G. Meichsner, L. Boenig, **M. Hackert-Oschätzchen**, M. Krönert, J. Edelmann: *Resource-efficient Design of Precise Electrochemical Machining*, 9th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany , 12.11.2013

[313] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert, B. Hommel, F. Jähn, M. Scharrnbeck, R. Garn, A. Lenk: *2D Axisymmetric Simulation of the Electrochemical Finishing of Micro Bores by Inverse Jet Electrochemical Machining*, European COMSOL Conference, Rotterdam, The Netherlands, 24.10.2013

[314] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Determining of micro structuring technologies for nucleate boiling surfaces*, 8th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Lisbon, Portugal, 20.06.2013

[315] A. Schubert, H. Zeidler, M. Hahn, **M. Hackert-Oschätzchen**, J. Schneider: *Micro-EDM Milling of Electrically Nonconducting Zirconia Ceramics*, 17th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Leuven, Belgium, 11.04.2013

[316] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, M. Kowalick, H. Zeidler, A. Schubert: *Inverse Jet Electrochemical Machining for Functional Edge Shaping of Micro Bores*, 17th CIRP Conference on Electro Physical and Chemical Machining (ISEM), Leuven, Belgium, 10.04.2013

[317] **M. Hackert-Oschätzchen**: *Simulation und Anwendung des elektrochemischen Abtragens in der Präzisions- und Mikrofertigungstechnik*, Doktoranden-Werkstatt der Professur Mikrofertigungstechnik der Technischen Universität Chemnitz und der Abteilung Präzisions- und Mikrofertigung des Fraunhofer-Instituts für Werkzeugmaschinen und Umformtechnik, Marienberg, Germany, 02.03.2013

[318] A. Schubert, P. Steinert, T. Schmidt, **M. Hackert-Oschätzchen**: *Manufacturing of tribologically optimized surfaces for powertrain applications*, 14th International Conference on Precision Engineering (ICPE), Hyogo, Japan, 09.11.2012

[319] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Effect of Tungsten Carbide Grain Size in Jet Electrochemical Machining*, 8th International Symposium on Electrochemical Machining Technology (INSECT), Krakow, Poland, 18.10.2012

[320] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, A. Martin, J. Edelmann: *Micro Wire Cutting by Pulsed Electrochemical Machining*, 8th International Symposium on Electrochemical Machining Technology (INSECT), Krakow, Poland, 18.10.2012

[321] A. Schubert, H. Zeidler, W. Meyer, M. Unger, **M. Hackert-Oschätzchen**: *Edge rounding of EDM micro bores using a plasma electrolytic polishing process*, 8th International Symposium on Electrochemical Machining Technology (INSECT), Krakow, Poland, 18.10.2012

[322] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert: *Multiphysics Simulation of the Electrochemical Finishing of Micro Bores*, European COMSOL Conference, Milan, Italy, 11.10.2012

[323] **M. Hackert-Oschätzchen**, M. Penzel, P. Plänitz, A. Schubert: *Pseudo-3D Multiphysics Simulation of a Hydride Vapor Phase Epitaxy Reactor*, European COMSOL Conference, Milan, Italy, 11.10.2012

[324] **M. Hackert-Oschätzchen**, G. Meichsner, A. Martin, H. Zeidler, A. Schubert: *Fast Micromilling with Jet Electrochemical Machining*, 29th Danubia-Adria Symposium, Belgrade, Serbia, 27.09.2012

[325] H. Zeidler, M. Hahn, J. Schneider, **M. Hackert-Oschätzchen**, A. Schubert: *Accelerated Precision Manufacturing through Electro Discharge Machining with Ultrasonic Vibration Assistance*, 29th Danubia-Adria Symposium, Belgrade, Serbia, 27.09.2012

[326] **M. Hackert-Oschätzchen**: *Habilitationsvorhaben im Forschungsgebiet elektrochemisches Abtragen*, Doktoranden-Werkstatt der Professur Mikrofertigungstechnik der Technischen Universität Chemnitz und der Abteilung Präzisions- und Mikrofertigung des Fraunhofer-Instituts für Werkzeugmaschinen und Umformtechnik, Marienberg, Germany, 23.03.2012

[327] **M. Hackert-Oschätzchen**: *Neue elektrothermische und elektrochemische Technologien der Mikrofertigung*, Schlossgespräche im Schloss Forderglauchau, Glauchau, Germany, 21.03.2012

[328] **M. Hackert-Oschätzchen**: *Verfahrensvarianten und Anwendungen des elektrochemischen Abtragens in der Präzisions- und Mikrofertigung*, Institutsseminar des Fraunhofer-Instituts für Silicatforschung, Würzburg, Germany, 02.02.2012

[329] **M. Hackert-Oschätzchen**: *Strom als Werkzeug – Anwendungen des elektrochemischen Abtragens in der Präzisions- und Mikrofertigung*, 3. Industriegespräch Chemnitz/Jena des Arbeitskreises für Industrie und Wirtschaft der Deutschen Physikalischen Gesellschaft, Chemnitz, Germany, 23.11.2011

[330] H.-H. Wolters, **M. Hackert-Oschätzchen**, G. Meichsner: *The undeveloped opportunities of Electrochemical Jet machining*, Seminar Micro and Precision Manufacturing at Fraunhofer Institute for Production Technology, Aachen, Germany, 22.11.2011

[331] A. Schubert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Martin: *Evaluation of the Influence of the Electric Potential in Jet Electrochemical Machining*, 7th International Symposium on Electrochemical Machining Technology (INSECT), Vienna, Austria, 03.11.2011

[332] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, M. Zinecker, J. Edelmann: *Pulsed Electrochemical Machining of Powder Metallurgy Steels*, 7th International Symposium on Electrochemical Machining Technology (INSECT), Vienna, Austria, 03.11.2011

[333] **M. Hackert-Oschätzchen**, S. F. Jahn, A. Schubert: *Design of Electrochemical Machining Processes by Multiphysics Simulation*, European COMSOL Conference, Stuttgart, Germany, 27.10.2011

[334] A. Schubert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, J. Edelmann: *Precision and Micro ECM with Localized Anodic Dissolution*, 8th International Conference on Industrial Tools and Material Processing Technologies (ICIT&MPT), Ljubljana, Slovenia, 03.10.2011

[335] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert-Oschätzchen**, J. Schneider: *Ultrasonic Assistance and Nonconductive Materials: Shifting the Boundaries of Micro-EDM*, 8th International Conference on Industrial Tools and Material Processing Technologies (ICIT&MPT), Ljubljana, Slovenia, 03.10.2011

[336] **M. Hackert-Oschätzchen**: *Effiziente und präzise Metallbearbeitung durch elektrochemisches Abtragen*, Wissenschaftliches Kolloquium zum 20. Gründungsjubiläum der SITEC Industrietechnologie GmbH, Chemnitz, Germany, 19.08.2011

[337] A. Schubert, J. Edelmann, D. Sylla, **M. Hackert-Oschätzchen**: *Structuring of tribological active surfaces for reduction of frictional losses*, 11th euspen International Conference, Cernobbio, Italy, 26.05.2011

[338] A. Schubert, S. F. Jahn, B. Müller, **M. Hackert-Oschätzchen**: *Study on the Influence of the Forming Velocity in Micro Impact Extrusion with Modular Dies*, 11th euspen International Conference, Cernobbio, Italy, 25.05.2011

[339] **M. Hackert-Oschätzchen**: *Auslegung von elektrochemischen Bearbeitungsprozessen mittels Multiphysiksimulation*, ECM Technologie Forum der SITEC Industrietechnologie GmbH , Chemnitz, Germany, 10.05.2011

[340] **M. Hackert-Oschätzchen**, G. Meichsner, H. Zeidler, M. Zinecker, A. Schubert: *Micro Machining of Different Steels with Closed Electrolytic Free Jet*, 14th International ESAFORM Conference on Material Forming, Belfast, United Kingdom, 28.04.2011

[341] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert-Oschätzchen**: *Micro Electro Discharge Machining of Electrically Nonconductive Ceramics*, 14th International ESAFORM Conference on Material Forming, Belfast, United Kingdom, 27.04.2011

[342] **M. Hackert**, G. Meichsner, A. Schubert: *Micro Turning with Closed Electrolytic Free Jet*, 6th International Symposium on Electrochemical Machining Technology (INSECT), Brussels, Belgium, 05.11.2010

[343] A. Schubert, J. Edelmann, S. Gross, H. Zeidler, G. Meichsner, **M. Hackert**, N. Wolf, J. Schneider: *Micromanufacturing Of Hard To Machine Materials By Physical And Chemical Ablation Processes*, Advances in Materials and Processing Technologies Conference (AMPT), Paris, France, 24.10.2010

[344] **M. Hackert**, G. Meichsner, A. Schubert: *Oberflächenstrukturierung mit geschlossenem elektrolytischen Freistrahl*, Workshop Oberflächenstrukturierung von rotationssymmetrischen und prismatischen Werkstücken der SITEC Industrietechnologie GmbH, Chemnitz, Germany, 20.10.2010

[345] A. Schubert, R. Neugebauer, D. Sylla, M. Avila, **M. Hackert**: *Fertigungs- und Oberflächentechnologien für anforderungsgerechte, tribologisch effiziente Oberflächen von Umformwerkzeugen und Powertrain-Bauteilen*, 1. Internationales Kolloquium des Spitzentechnologieclusters eniPROD, Chemnitz, Germany, 25.06.2010

[346] **M. Hackert**: *Erfolgsfaktoren für eine Promotion*, Doktoranden-Werkstatt der Professur Mikrofertigungstechnik der Technischen Universität Chemnitz und der Abteilung Präzisions- und Mikrofertigung des Fraunhofer-Instituts für Werkzeugmaschinen und Umformtechnik, Marienberg, Germany, 26.03.2010

[347] **M. Hackert**: *EC-Technologien und Applikationen an Fraunhofer IWU und TU Chemnitz*, Eröffnung des PEM-Application-Centers am Fraunhofer-Institut für Werkzeugmaschinen und Umformtechnik, Chemnitz, Germany, 28.01.2010

[348] **M. Hackert**, G. Meichsner, A. Schubert: *Generating plane and microstructured surfaces applying Jet Electrochemical Machining*, 5th International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 26.11.2009

[349] G. Meichsner, **M. Hackert**, A. Schubert: *Abtragende und abformende Fertigungsverfahren für die Medizintechnik*, RAPROMED® 2009 - Brücke zwischen Medizin und Technik, Oelsnitz/Erzgebirge, Germany, 29.10.2009

[350] A. Schubert, R. Pohl, **M. Hackert**: *Simulation of a Modular Die Stamp for Micro Impact Extrusion*, European COMSOL Conference, Milan, Italy, 16.10.2009

[351] A. Schubert, **M. Hackert**, G. Meichsner: *Simulating the Influence of the Nozzle Diameter on the Shape of Micro Geometries Generated with Jet Electrochemical Machining*, European COMSOL Conference, Milan, Italy, 15.10.2009

[352] A. Schubert, **M. Hackert**, G. Meichsner: *Elektrochemisches Strukturieren von Oberflächen mit geschlossenem elektrolytischen Freistrahl*, 12. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 01.10.2009

[353] **M. Hackert**: *Elektrochemisches Abtragen - Ein Verfahren der Präzisions- und Mikrofertigung*, Meeting der PEM Applikationszentren der PEMTec SNC , Forbach, France, 28.09.2009

[354] M. Schneider, S. Schroth, A. Michaelis, **M. Hackert**, A. Schubert: *Electrochemical machining – an unconventional manufacturing process*, 29. Internationaler Ausstellungskongress für Chemische Technik, Umweltschutz und Biotechnologie (ACHEMA), Frankfurt am Main, Germany, 14.05.2009

[355] **M. Hackert**: *Entwicklung und Simulation eines Verfahrens zum elektrochemischen Abtragen von Mikrogeometrien mit geschlossenem elektrolytischen Freistrahl*, Doktoranden-Werkstatt der Professur Mikrofertigungstechnik der Technischen Universität Chemnitz und der Abteilung Präzisions- und Mikrofertigung des Fraunhofer-Instituts für Werkzeugmaschinen und Umformtechnik, Marienberg, Germany, 21.03.2009

[356] **M. Hackert**: *Mein Weg zur Promotion*, Doktoranden-Werkstatt der Professur Mikrofertigungstechnik der Technischen Universität Chemnitz und der Abteilung Präzisions- und Mikrofertigung des Fraunhofer-Instituts für Werkzeugmaschinen und Umformtechnik, Marienberg, Germany, 20.03.2009

[357] M. Schneider, S. Schroth, A. Michaelis, **M. Hackert**, G. Meichsner, A. Schubert: *Electrochemical Machining (ECM) – ein unkonventionelles Fertigungsverfahren*, AGEF Symposium, Düsseldorf, Germany, 18.11.2008

[358] **M. Hackert**, G. Meichsner, A. Schubert: *Simulation of the Shape of Micro Geometries generated with Jet Electrochemical Machining*, European COMSOL Conference, Hannover, Germany, 06.11.2008

[359] **M. Hackert**, G. Meichsner, A. Schubert: *Fast Micro Structuring with Electrolyte Jet Machining*, 4th International Symposium on Electrochemical Machining Technology (INSECT), Chemnitz, Germany, 25.10.2007

[360] A. Schubert, **M. Hackert**, G. Meichsner: *Electrochemical drilling of deep micro holes with bulk electrodes*, 3rd International Symposium on Electrochemical Machining Technology (INSECT), Dresden, Germany, 26.10.2006

Posters

[361] M. Beutner, **M. Hackert-Oschätzchen**, M. Eich, B. Karpuschewski: *Potential of cutting fluid application in gear hobbing of high-strength materials*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 28.04.2026

[362] C. Lerez, V. Artiushenko, **M. Hackert-Oschätzchen**: *Exploring Artificial Intelligence for Tool Wear Prediction in Turn-Milling*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 28.04.2026

[363] C. Michaelis, E. Koslowski, A. Giese, C. Schwarz, **M. Hackert-Oschätzchen**: *Assessment of Natural Gas–Hydrogen Fuel Blends for Industrial Melting Furnaces in Secondary Aluminium Production*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 28.04.2026

[364] P. Damm, O. Bederitzky, J. Vogel, A. Riefer, P. Plänitz, C. Lerez, G. Meichsner, **M. Hackert-Oschätzchen**: *Classification and Detection Method for Discharges in Electrical Discharge Machining through Unsupervised Learning*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 27.04.2026

[365] F. Hoffmann, P. Plänitz, A. May, F. Winkler, M. Barth, S. Majcherek, **M. Hackert-Oschätzchen**: *Analysis of Connection Geometries for Segmented Stator Cores Machined with Laser Beam Cutting*, 29th International ESAFORM Conference on Material Forming, Thessaloniki, Greece, 27.04.2026

[366] A. Riefer, P. Damm, G. Meichsner, **M. Hackert-Oschätzchen**: *Dependence of friction on boundary curvature for Navier-slip conditions and highly viscous liquids*, European COMSOL Conference, Amsterdam, The Netherlands, 29.-31.10.2025

[367] A. Riefer, R. Petermann, **M. Hackert-Oschätzchen**, G. Meichsner, U. Morawietz, P. Becher, M. Gläser: *Hygrothermal simulations for the signal of an integrated RH sensor for wood windows*, European COMSOL Conference, Amsterdam, The Netherlands, 29.-31.10.2025

[368] J. Döring, V. Voropai, A. Thielecke, O. Maiß, M. Müller, G. Meichsner, **M. Hackert-Oschätzchen**, J. Häberle, C. H. Lohmann, J. Bertrand: *Steigerung des Torsionswiderstands der Konussteckverbindung durch einen angepassten Fertigungsprozess der CoCrMo Hüftkugel*, 12. Kongress der Deutschen Gesellschaft für Biomechanik (DGfB), Köln, Germany, 28.-30.09.2022

[369] J. Hülsmann, F. Reuter, M. Beutner, T. Fraune, V. Beck, M. Wacker, **M. Hackert-Oschätzchen**, C.-D. Ohl, K. Bettenbrock, M. Scherner, J. Wippermann: *Improving the Biofunctionality of Bacterial Nanocellulose Hydrogel Scaffolds by Bioprocessing Strategies*, 32nd Annual Conference of the European Society for Biomaterials (ESB), Bordeaux, France, 04.-08.09.2022

[370] M. Penzel, I. Schaarschmidt, **M. Hackert-Oschätzchen**, A. Schubert: *Numerical Investigation of Electrolyte Flow in a Multi-Cathode System for Electrochemical Machining*, European COMSOL Conference, Lausanne, Switzerland, 22.-24.10.2018

[371] I. Danilov, **M. Hackert-Oschätzchen**, I. Schaarschmidt, M. Zinecker, A. Schubert: *Transient Simulation of the Removal Process in Plasma Electrolytic Polishing of Stainless Steel*, European COMSOL Conference, Lausanne, Switzerland, 22.-24.10.2018

[372] I. Schaarschmidt, P. Steinert, **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Simulation-based Analysis of a Microstructuring Process for Bolt Surfaces with Increased Friction*, European COMSOL Conference, Lausanne, Switzerland, 22.-24.10.2018

[373] N. Lehnert, A. Martin, J. W. Mwangi, **M. Hackert-Oschätzchen**, A. Schubert, R. Morgenstern, T. Lampke: *Multiphysics Simulation of Localised Anodisation of Aluminium*, 18th euspen International Conference, Venice, Italy, 04.-08.06.2018

[374] M. Yahyavi Zanjani, **M. Hackert-Oschätzchen**, A. Martin, A. Schubert: *Experimental Study on Jet Electrochemical Machining of Intersecting Single Grooves*, euspen Special Interest Group Meeting: Micro/Nano Manufacturing, Glasgow, United Kingdom, 08.-09.11.2017

[375] R. Paul, **M. Hackert-Oschätzchen**, M. Zinecker, A. Schubert: *Approximation of the Flow Field in Electrochemical Machining Incorporating Pressure Drop Calculation*, European COMSOL Conference, Rotterdam, The Netherlands, 18.-20.10.2017

[376] I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, G. Meichsner, A. Schubert: *Multiscale Model of the PECM with Oscillating Cathode for External Geometries using a Virtual Switch*, European COMSOL Conference, Rotterdam, The Netherlands, 18.-20.10.2017

[377] P. Steinert, R. Paul, I. Schaarschmidt, M. Zinecker, **M. Hackert-Oschätzchen**, T. Muschalek, J. Esslinger, A. Schubert: *Analysis of Mixing Chambers for the Processing of Two-component Adhesives for Transport Applications*, European COMSOL Conference, Rotterdam, The Netherlands, 18.-20.10.2017

[378] M. Penzel, M. Zinecker, A. Schubert, **M. Hackert-Oschätzchen**, A. Ludwig, A. Adamczewski, A. Schulz, M. Lausberg: *Investigation of Forced Convection in Pin Structured Cold Plates for Improved Heat Transfer and Heat Spreading*, 9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics, Iguazu Falls, Brazil, 12.-15.06.2017

[379] M. Sieber, R. Morgenstern, D. Kuhn, **M. Hackert-Oschätzchen**, A. Schubert, T. Lampke: *Downscaled anodic oxidation process for aluminium in oxalic acid*, 19. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 16.-17.03.2017

[380] **M. Hackert-Oschätzchen**, R. Funke, A. C. Bullinger-Hoffmann, A. Schubert: *Interaktive Aktivierung von Studierenden der Fakultät für Maschinenbau in der Grundlagenausbildung zur Fertigungslehre*, HDS.Forum, Dresden, Germany, 11.11.2016

[381] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, C. Scherf, A. Martin, A. Schubert: *Analysis of an Electrochemical Machining Process for Particle Reinforced Aluminium Matrix Composites*, European COMSOL Conference, Munich, Germany, 12.-14.10.2016

[382] **M. Hackert-Oschätzchen**, M. Kowalick, R. Paul, M. Zinecker, D. Kuhn, G. Meichsner, A. Schubert: *2-D Axisymmetric Simulation of the Electrochemical Machining of Internal Precision Geometries*, European COMSOL Conference, Munich, Germany, 12.-14.10.2016

[383] **M. Hackert-Oschätzchen**, M. Penzel, M. Kreißig, M. Kowalick, M. Zinecker, G. Meichsner, A. Schubert: *Transient Simulation of an Electrochemical Machining Process for Stamping and Extrusion Dies*, European COMSOL Conference, Munich, Germany, 12.-14.10.2016

[384] A. Martin, C. Eckart, N. Lehnert, **M. Hackert-Oschätzchen**, A. Schubert: *Generation of Defined Surface Waviness on Tungsten Carbide by Jet Electrochemical Machining with Pulsed Current*, 3rd CIRP Conference on Surface Integrity (CSI), Charlotte, USA, 08.-10.06.2016

[385] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Penzel, P. Neumann, H. Zeidler: *Thermal measurement technology for forced convection on microstructured heat exchangers*, euspen Special Interest Group Meeting: Thermal Issues, Prague, Czech Republic, 17.-18.03.2016

[386] **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, A. Schubert: *Jet Electrochemical Machining of Particle Reinforced Aluminum Matrix Composites with Different Neutral Electrolytes*, 18. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 10.03.2016

[387] A. Schubert, U. Götze, **M. Hackert-Oschätzchen**, N. Lehnert, F. Herold, G. Meichsner, A. Schmidt: *Evaluation of the Technical-Economic Potential of Particle- Reinforced Aluminum Matrix Composites and Electrochemical Machining*, 18. Werkstofftechnisches Kolloquium (WTK), Chemnitz, Germany, 10.03.2016

[388] A. Schubert, **M. Hackert-Oschätzchen**, N. Lehnert, A. Martin, G. Meichsner: *Analysis of the Electrochemical Dissolution Characteristics of High-Strength Particle Reinforced Aluminium Matrix Composites*, 17th International Conference on the Strength of Materials (ICSMA), Brno, Czech Republic, 09.-14.08.2015

[389] **M. Hackert-Oschätzchen**, N. Lehnert, M. Kowalick, G. Meichsner, A. Schubert: *Analysis of the Electrochemical Removal of Aluminium Matrix Composites Using Multiphysics Simulation*, European COMSOL Conference, Cambridge, United Kingdom, 17.-19.09.2014

[390] **M. Hackert-Oschätzchen**, M. Penzel, M. Kowalick, G. Meichsner, A. Schubert: *Transient Simulation of the Electrolyte Flow in a Closed Device for Precise Electrochemical Machining*, European COMSOL Conference, Cambridge, United Kingdom, 17.-19.09.2014

[391] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Analysis of Strategies for Gap Control in Jet Electrochemical Machining*, 14th euspen International Conference, Dubrovnik, Croatia, 02.-06.06.2014

[392] A. Schubert, H. Zeidler, A. Martin, **M. Hackert-Oschätzchen**, A. Martin, K. Kempen, J.-P. Kruth: *Jet-Electrochemical Machining of Selective Laser Melted Aluminum and Steel Alloys for Micro Injection Moulds*, 14th euspen International Conference, Dubrovnik, Croatia, 02.-06.06.2014

[393] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Application of Nucleate Boiling with Micro Structured Surfaces for Electronic Cooling*, International Conference and Exhibition for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management (PCIM EUROPE), Nuremberg, Germany, 19.-21.05.2014

[394] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert, B. Hommel, F. Jähn, M. Scharrnbeck, R. Garn, A. Lenk: *2D Axisymmetric Simulation of the Electrochemical Finishing of Micro Bores by Inverse Jet Electrochemical Machining*, European COMSOL Conference, Rotterdam, The Netherlands, 23.-25.10.2013

[395] **M. Hackert-Oschätzchen**, R. Paul, M. Penzel, M. Zinecker, A. Schubert: *Simulation of Heat Transfer on Periodic Microstructured Surfaces for Evaporation Cooling*, European COMSOL Conference, Rotterdam, The Netherlands, 23.-25.10.2013

[396] **M. Hackert-Oschätzchen**, M. Kreißig, M. Kowalick, H. Zeidler, A. Schubert, O. Kröning, M. Herzig, H.-P. Schulze: *Single Discharge Simulations of Needle Pulses for Electrothermal Ablation*, European COMSOL Conference, Rotterdam, The Netherlands, 23.-25.10.2013

[397] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, M. Lausberg, A. Schulz: *Energy-efficient cooling using microstructures for nucleate boiling process*, International Conference and Exhibition for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management (PCIM EUROPE), Nuremberg, Germany, 14.-16.05.2013

[398] A. Schubert, M. Zinecker, **M. Hackert-Oschätzchen**, H. Zeidler, J. Edelmann: *Micro Structured Surfaces for Thermodynamic Applications*, euspen 3rd Topical Meeting - Structured and Freeform Surfaces, Teddington, United Kingdom, 05.-06.12.2012

[399] **M. Hackert-Oschätzchen**, M. Kowalick, G. Meichsner, A. Schubert: *Multiphysics Simulation of the Electrochemical Finishing of Micro Bores*, European COMSOL Conference, Milan, Italy, 10.-12.10.2012

[400] **M. Hackert-Oschätzchen**, M. Penzel, P. Plänitz, A. Schubert: *Pseudo-3D Multiphysics Simulation of a Hydride Vapor Phase Epitaxy Reactor*, European COMSOL Conference, Milan, Italy, 10.-12.10.2012

[401] **M. Hackert-Oschätzchen**, G. Meichsner, A. Martin, H. Zeidler, A. Schubert: *Fast Micromilling with Jet Electrochemical Machining*, 29th Danubia-Adria Symposium, Belgrade, Serbia, 27.-29.09.2012

[402] H. Zeidler, M. Hahn, J. Schneider, **M. Hackert-Oschätzchen**, A. Schubert: *Accelerated Precision Manufacturing through Electro Discharge Machining with Ultrasonic Vibration Assistance*, 29th Danubia-Adria Symposium, Belgrade, Serbia, 27.-29.09.2012

[403] **M. Hackert-Oschätzchen**, A. Martin, G. Meichsner, A. Schubert: *Micro Structuring of Carbide Metals with Jet Electrochemical Machining*, 12th euspen International Conference, Stockholm, Sweden, 05.-08.06.2012

[404] A. Schubert, G. Meichsner, **M. Hackert-Oschätzchen**, H. Zeidler: *Functional Edge Shaping of Micro Bores by Applying Electrochemical Machining*, 12th euspen International Conference, Stockholm, Sweden, 05.-08.06.2012

[405] A. Schubert, H. Zeidler, N. Wolf, **M. Hackert-Oschätzchen**, J. Schneider: *Ultrasonic-Assisted Micro-EDM of Deep Bores: Process and Discharge Analysis*, 12th euspen International Conference, Stockholm, Sweden, 05.-08.06.2012

[406] A. Schubert, **M. Hackert-Oschätzchen**, M. Zinecker, M. Lausberg, A. Schulz: *Energy-Efficient Evaporation Cooling of High-Power Electronics Using Innovative Micro Structured Surfaces*, International Conference and Exhibition for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management (PCIM EUROPE), Nuremberg, Germany, 08.-10.05.2012

[407] **M. Hackert-Oschätzchen**, G. Meichsner, M. Zinecker, A. Schubert: *Precision Turning with localized anodic dissolution*, 11th euspen International Conference, Cernobbio, Italy, 23.-27.05.2011

[408] **M. Hackert**, G. Meichsner, S. F. Jahn, A. Schubert: *Investigating the Influence of Dynamic Jet Shapes on the Jet Electrochemical Machining Process*, European COMSOL Conference, Paris, France, 17.-19.11.2010

[409] A. Schubert, S. F. Jahn, **M. Hackert**: *Simulation of a Forming Process for Joining a Piezo Aluminium Module*, European COMSOL Conference, Paris, France, 17.-19.11.2010

[410] S. F. Jahn, S. Ebert, **M. Hackert**, W. A. Goedel, A. Schubert, R. R. Baumann: *Simulation of the Mechanical Stability of Inkjet-Printed Hierarchical Microsieves*, European COMSOL Conference, Paris, France, 17.-19.11.2010

[411] A. Schubert, R. Pohl, **M. Hackert**: *Micro Impact Extrusion of Precision Cavities with Modular Dies*, 10th euspen International Conference, Delft, The Netherlands, 31.05.-04.06.2010

[412] **M. Hackert**, A. Schubert, G. Meichsner: *Simulation of a Heated Tool System for Jet Electrochemical Machining*, European COMSOL Conference, Milan, Italy, 14.-16.10.2009

[413] **M. Hackert**, G. Meichsner, A. Schubert: *Generating Micro Geometries with Air assisted Jet Electrochemical Machining*, euspen 10th Anniversary International Conference, Zürich, Switzerland, 18.-22.05.2008

[414] **M. Hackert**, G. Meichsner, A. Schubert: *Electrochemical Machining of Carbide Metal Micro Tools*, 7th euspen International Conference, Bremen, Germany, 20.-24.05.2007