CURRICULUM VITAE

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CONTACT DETAILS

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EDUCATION

03/2019 – 09/2022	Doctoral Studies in Mining Sciences, Montanuniversität Leoben; Industrial Environmental Protection, Disposal Engineering and Recycling
02/2013 – 01/2015	Mechanical Engineering, Graz University of Technology; Master's Degree; Focus: Energy and Environmental Engineering, Engine and Drive Engineering
10/2009 – 02/2013	Mechanical Engineering, Graz University of Technology; Bachelor's Degree
09/2003 – 06/2008	Technical College for Mechatronics, Steyr Focus: Precision Technology

WORK EXPERIENCE

Since 01/2022	Senior Researcher; Energieinstitut an der Johannes Kepler Universität Linz, Department of Energy Technology
09/2016 – 12/2021	Research Associate; Energieinstitut an der Johannes Kepler Universität Linz, Department of Energy Technology
09/2015 – 08/2016	Design Engineer for Refrigeration Equipment, Hauser GmbH, St. Martin
01/2015 – 08/2015	System Administrator, Böhm Möbel GmbH, Rainbach
06/2014 – 01/2015	Graduand, Institute of Thermal Engineering, Graz University of Technology; Master's thesis "Modelling and analysis of the air-to-air heat pump at Castle Rabenstein"
08/2012 – 10/2012	Design engineering activity for large-scale combustion engines, Research Association of Internal Combustion Engines and Thermodynamics, Graz

SELECTED PUBLICATIONS

Research papers & articles

Puschnigg, S., Ali, H., Böhm, H., Volkova, A., Moser, S. (2026); Unlocking electrolysis waste heat for district heating: Potentials, barriers, and policy pathways, *Energy Reports 15*, 108968

Puschnigg, S., Patauner, D., Böhm, H., Doujak, E., Müller, C. (2025); Digitalization and hydropower integration in water supply systems: Unlocking energy potential, efficiency, and resilience, *Cleaner Engineering and Technology*, 101098

Rodin, V., Böhm, H., Lindorfer, J., Paulik, C. (2023); Techno-economic evaluation of the electrochemical production of renewable ethylene oxide from fluctuating power sources and CO2, *Journal of CO_2 Utilization* 75, 102554

Veseli, A., Markova, D., Böhm, H., Goers, S., Müller, C. (2022); Interdisciplinary challenges and opportunities for hydrogen projects in Austria and the EU, *The European Energy and Climate Journal*, 11(2), 60-63

Rosenfeld, D.C., Lindorfer, J., Böhm, H., Zauner, A., Fazeni-Fraisl, K. (2021); Potentials and Costs of Various Renewable Gases: A Case Study for the Austrian Energy System by 2050, Detritus 16, pp. 106-120

Böhm, H., Lehner, M., Kienberger, T. (2021); Techno-Economic Assessment of Thermally Integrated Co-Electrolysis and Methanation for Industrial Closed Carbon Cycles, Frontiers in Sustainability 2, 726332

Böhm, H., Moser, S., Puschnigg, S., Zauner, A. (2021); Power-to-hydrogen & district heating: Technology-based and infrastructure-oriented analysis of (future) sector coupling potentials, International Journal of Hydrogen Energy 46, 31938–31951

Schlautmann, R., Böhm, H., Zauner, A., Mörs, F., Tichler, R., Graf, F., Kolb, T. (2021); Renewable power-to-gas: A technical and economic evaluation of three demo sites within the STORE&GO project, *Chemie Ingenieur Technik* 93, 4, pp. 568–579

Rodin, V., Lindorfer, J., Böhm, H., Vieira, L. (2020); Assessing the potential of carbon dioxide valorisation in Europe with focus on biogenic CO_2, Journal of CO_2 Utilization 41, 101219

Böhm, H., Zauner, A., Rosenfeld, DC., Tichler, R. (2020); Projecting cost development for future large-scale power-to-gas implementations by scaling effects, Applied Energy 264, 114780

Rosenfeld, DC., Böhm, H., Lindorfer, J., Lehner, M. (2020); Scenario analysis of implementing a power-to-gas and biomass gasification system in an integrated steel plant: A techno-economic and environmental study, Renewable Energy 147, pp. 1511-1524

Böhm, H., Goers, S., Zauner, A. (2019); Estimating future costs of power-to-gas – A component-based approach for technological learning, International Journal of Hydrogen Energy 44, pp. 30789-30805

Böhm, H., Lindorfer, J. (2019); Techno-economic assessment of seasonal heat storage in district heating with thermochemical materials, Energy 179, pp. 1246-1264

Rieberer, R., Heimrath, R., Böhm, H. (2014); Beheizung einer Burg mittels Luft/Luft-Wärmepumpen; DKV-Tagung 2014; Düsseldorf, Germany

Conference presentations & proceedings

Böhm, H. (2026); Managing Carbon – Impacts of CCUS from an Austrian Perspective, ISEC 2026, Graz

Böhm, H. (2025); Energy Transition of the Austrian Industry – Economic Impacts of Sectoral Climate Neutrality, 20th Conference on Sustainable Development of Energy, Water and Environment Systems, 05.–10. October 2025, Dubrovnik

Böhm, H. (2025); Circular Carbon – Comparative economic and ecological analyses insights, 1st Symposium on CO_2 Conversion, Linz

Böhm, H. (2024); Hydrogen as a crucial part of Austrian energy transition – Demands and opportunities in the context of industrial areas, gH2 Workshop, Traunkirchen

Böhm, H. (2023); Holistic perspectives for hydrogen economies, Munich Hydrogen Symposium, 04.–06. October 2023, Munich

Böhm, H. (2021); Technoökonomische Bewertung der Co-Elektrolyse und Methanisierung zur Etablierung geschlossener Kohlenstoffkreisläufe in energieintensiver Industrie, NEFI – Konferenz des Innovationsverbundes, 06.–07. Mai 2021, online

Böhm, H. (2020); Selected aspects of sector coupling between hydrogen and district heating, IEA DHC TS3 – Industry workshop: digitalization and hybrid energy, 9. September 2020

Böhm, H. (2019); Kurzvortrag Leitprojekt des Klima- und Energiefonds HydroMetha, Forum Econogy 2019, 25. September 2019, Linz.

Böhm, H., Lindorfer, J. (2018); Techno-economic assessment of seasonal heat storage in district heating with thermochemical materials, 13th Conference on Sustainable Development of Energy, Water and Environment Systems, 30. September – 04. October 2018, Palermo.

Book chapters

Böhm, H., Tichler, R. (2023); ’20 – Economic Aspects of Power-to-Gas’ In: *High Temperature Electrolysis – from Fundamentals to Applications*, Werner Sitte, Rotraut Merkle (Ed.), IOP Publishing, ISBN 978-0-7503-3951-3

Tichler, R., Bauer, S., Böhm, H. (2022); ‘25 – Power-to-Gas’ In: *Storing Energy (Second Edition)*, Trevor M. Letcher (Ed.), Elsevier, ISBN 978-0-12-824510-1

Graf, F., Heneka, M., Zauner, A., Böhm, H., Tichler, R., Cohen, J., Friedl, C., Reichl, J. (2021); ‘Ökologische, wirtschaftliche und sozioökonomische Bewertung von PtG-Technologien‘ In: Power-to-Gas – Grundlagen, Konzepte, Lösungen, Frank Graf, René Schoof, Markus Zdrallek (Ed.), Vulkan Verlag, Essen, ISBN 978-3-8356-7445-5

Lindorfer, J., Rosenfeld, DC., Böhm, H. (2020); ‘Fuel Cells: Energy Conversion Technology‘ In: Future Energy – Improved, Sustainable and Clean Options for Our Planet, Trevor M. Letcher (Ed.), Elsevier Ltd., Amsterdam, ISBN 978-0-08-102886-5