

Dr.-Ing. habil. Oliver Schlüter

Curriculum Vitae

Positions and Qualification

- 05/2020 – ongoing: [Adjunct Professor](#) at the University of Bologna (UNIBO)
- 12/2019 – ongoing: Leadership team of the [Microbiomics Laboratory](#) for Bioeconomy, CIRCLE, ATB
- 12/2019 – ongoing: Project leader “genetic engineering” according to § 3 GenTG und §§ 14, 15 GenTSV
- 07/2019: Habilitation in food technology, thesis on “Cold atmospheric pressure plasma treatment of food systems: Impact on safety and quality attributes along the value-added chain”, Fakultät Maschinenwesen, Technische Universität Dresden
- 09/2016: Permission holder according to §§ 2, 4 TierSeuchErV
- 07/2013: Permission holder according to § 44 IfSG
- 01/2011 – today: Coordinator, Research Programme on Quality and Safety of Food and Feed, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)
- 01/2008 – 03/2020: Head of Food Hygiene Lab, Dept. Horticultural Engineering, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)
- 08/2007 – today: Vice-head, Dept. Horticultural Engineering, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)
- 08/2003 – today: Senior Scientist, Dept. Horticultural Engineering, Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)
- 06/2003: Doctorate degree, thesis title: [Impact of High Pressure - Low Temperature Processes on Cellular Materials Related to Foods](#), Technische Universität Berlin
- 11/1996 – 07/2003: Research Associate, Ph.D. Candidate, Food Biotechnology and Food Processing Technology, Technische Universität Berlin

Research areas

- Emerging bio-resources for human and animal nutrition (hemp, insects, macro-algae, etc.)
- Novel technologies in postharvest preparation and processing (high pressure, atmospheric pressure plasma, pulsed electric fields, etc.) of fresh food (fruits, vegetables, milk, meat, etc.)
- Smart inactivation of biological contaminants (viruses, bacteria, spores, etc.)
- Quality and safety monitoring (spectral-optical methods, flow cytometry, MALDI-ToF, etc.) to control process steps along the value chain of perishables

Scientific activities

- Chair of the Technical Board of CIGR Section VI: Bioprocesses
- Chair of EFFoST Standing Committee on Careers Development & Education
- Member of DFG Senate Commission on Food Safety, Working Group „Food Technology and Safety“
- German representative of IFA (ISEKI Food Association)
- GHI (Global Harmonization Initiative)
- Chair / Co-Chair INSECTA International Conference (2017, 2018, 2019, 2021...)
- Member of Editorial Board of Innovative Food Science and Emerging Technologies
- Member of Editorial Board Journal of Insects as Food and Feed

- Member of Editorial Team of the book entitled “Cold Plasma in Food and Agriculture”

Projects

- Slow-FeedChickIns – Optimierte Nährstoffversorgung von Zweinutzungshühnern - Angepasste Rationen, alternative Proteinquellen, Auswirkungen und Anpassungsmöglichkeiten Die moderne Hühnerfütterung basiert auf umfassenden Untersuchungen zum Nährstoffbed...
- reKultI4Food – Sustainable and resilient cultivation of insects for innovative use in feed and food production Hochwertige tierische Proteine sind in der Fütterung von karnivoren Fischen und omnivoren monogastrischen Nutztieren über weite Strecken nu...
- InnoHof – Leibniz-Innovationshof für nachhaltige Bioökonomie Auf dem Leibniz-Innovationshof für nachhaltige Bioökonomie werden künftig innovative Konzepte und Technologien für eine nachhaltige, zirkuläre Bioökonomie entwickelt und erprobt, indem Landw...
- DAAD-PPP-Serbien – Non-thermal plasma potential in the hemp seed sprouting Ziel des Projekts ist es, die Möglichkeiten der nicht-thermischen Plasmabehandlung zu testen, wie sie für die Sterilisation (direkte Plasmabehandlung) und das Einweichen (Verw...
- AquaTech4Feed – Neue nachhaltige Aquakulturtechnologien für die Produktion innovativer Futtermittel für verbesserte Fischbestände (Novel sustainable aquaculture technologies for the production of innovative feeds for improved fish stocks) Ziel des tr...
- PLAGri – Plasma applications for smart and sustainable agriculture Ein kontinuierlicher Anstieg der Nachfrage nach Lebensmitteln aufgrund des Bevölkerungswachstums stellt eine ernsthafte Herausforderung für die Menschheit dar. Selbst in Regionen, in ...
- PulpIng – Entwicklung einer Kürbisfruchtmarkzubereitung durch Anwendung eines nachhaltigen und integrierten Technikkonzepts. Teilvorhaben Nicht-thermische Verfahren und Aspekte der Produktsicherheit bzw. -qualität EN: Development of Pumpkin Pulp Form...
- inTech – Eco-innovative technologies for sustainable exploitation of macromolecules from insects as alternative resource in bioeconomy Das Gesamtziel des inTECH-Projekts ist die Entwicklung öko-innovativer technologischer Lösungen für die nachhaltige...
- food4future – Agrarsysteme der Zukunft: F4F - Nahrung der Zukunft, Teilprojekt I food4future setzt sich aus vier inter- und intra-agierenden Forschungsfeldern (FF) zusammen: FF I: Organismen, FF II: Urbane Bioräume, FF III: Smart Nutrition & Sensor ...
- SHEALTHY – Non-Thermal physical technologies to preserve fresh and minimally processed fruit and vegetables (SHEALTHY) SHEALTHY zielt darauf ab, eine optimale Kombination von nicht-thermischen Hygienisierungs-, Konservierungs- und Stabilisierungsmeth...

Publications

- Rossi, S.; Gottardi, D.; Barbiroli, A.; Di Nunzio, M.; Siroli, L.; Braschi, G.; Schlüter, O.; Patrignani, F.; Lanciotti, R. (2024): *Effect of Combined High-Pressure Homogenization and Biotechnological Processes on Chitin, Protein, and Antioxidant Activity of Cricket Powder-Based Ingredients*. *Foods*. (3): p. 449. Online: <https://doi.org/10.3390/foods13030449>
- Rossi, G.; Ojha, S.; Müller-Belecke, A.; Schlüter, O. (2023): *Fresh aquaculture sludge management with black soldier fly (*Hermetia illucens* L.) larvae: investigation on*

- bioconversion performances. *Scientific Reports*. : p. 20982. Online: <https://doi.org/10.1038/s41598-023-48061-0>
- Durek, J.; Fröhling, A.; Stüpmann, F.; Neumann, S.; Ehlbeck, J.; Schlüter, O. (2023): Optimized cleaning of conveyor belts using plasma-processed water assisted by optical detection of food residues. *Innovative Food Science and Emerging Technologies*. (June 2023): p. 103379. Online: <https://doi.org/10.1016/j.ifset.2023.103379>
 - Rossi, S.; Maares, M.; Kieserling, H.; Rohn, S.; Schlüter, O.; Patrignani, F.; Lanciotti, R.; Haase, H.; Keil, C. (2023): Zinc Tolerance of Special Yeasts and Lactic Acid Bacteria for Use in the Food Industry. *Fermentation*. (6): p. 521. Online: <https://doi.org/10.3390/fermentation9060521>
 - Psarianos, M.; Ojha, S.; Schlüter, O. (2023): Evaluating an emerging technology-based biorefinery for edible house crickets. *Frontiers in Nutrition*. : p. 1185612. Online: <https://doi.org/10.3389/fnut.2023.1185612>
 - Iranshahi, K.; Rubinetti, D.; Onwude, D.; Psarianos, M.; Schlüter, O.; Defraeye, T. (2023): Electrohydrodynamic drying versus conventional drying methods: A comparison of key performance indicators. *Energy Conversion and Management*. (1 March 2023): p. 116661. Online: <https://doi.org/10.1016/j.enconman.2023.116661>
 - Iranshahi, K.; Psarianos, M.; Rubinetti, D.; Onwude, D.; Schlüter, O.; Defraeye, T. (2023): Impact of pre-treatment methods on the drying kinetics, product quality, and energy consumption of electrohydrodynamic drying of biological materials. *Innovative Food Science and Emerging Technologies*. (May 2023): p. 103338. Online: <https://doi.org/10.1016/j.ifset.2023.103338>
 - Rajan, A.; Boopathy, B.; Radhakrishnan, M.; Rao, L.; Schlüter, O.; Tiwari, B. (2023): Plasma processing: a sustainable technology in agri-food processing. *Sustainable Food Technology*. (1): p. 9-49. Online: <https://doi.org/10.1039/D2FB00014H>
 - Ojha, S.; Rossi, G.; Pathak, N.; Durek, J.; Mahajan, P.; Schlüter, O. (2023): Microbial Growth and Physicochemical Quality Changes During Modified Atmosphere Storage of High Hydrostatic Pressure Processed *Tenebrio molitor* Paste. *Food and Bioprocess Technology*. : p. 1-12. Online: <https://doi.org/10.1007/s11947-023-03235-6>
 - Rossi Ribeiro, L.; Artigiani Lima Tribst, A.; Schlüter, O. (2023): Impact of plasma activated water (PAW) at different temperatures on *Alicyclobacillus acidoterrestris* spores. *LWT-Food Science and Technology*. (1 January 2024): p. 115629. Online: <https://doi.org/10.1016/j.lwt.2023.115629>