

Curriculum vitae

Name: Dipl.-Ing. Dr.techn. David Johannes Wurm
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 Date of birth: 17.08.1989



Professional experiences, internships and other University Experience

Since 10/2017 **Lecturer** at IMC **FH Krems** – University of Applied Sciences

Since 01/2017 **Postdoctoral researcher** at TU Wien conducting and supervising industrial projects on **integrated bioprocess development for recombinant production of proteins**

Since 01/2014 Supervision of Bachelor and Diploma theses

04/2014-05/2014 Tutor at the Institute of Chemical Engineering **research division Biochemical Engineering** at the Vienna University of Technology

09/2013-12/2013 Internship at the Institute of Chemical Engineering **research division Biochemical Engineering** working on *E.coli* Downstream process development at the Vienna University of Technology

12/2012-04/2013 Internship at the Institut Européen des Membranes of the **Ecole Nationale Supérieure de Chimie** in Montpellier/**France** developing an enzymatic packed bed reactor under supercritical conditions

10/2012-11/2012 Internship at the Institute of Chemical Engineering **research division Thermal process engineering** at the Vienna University of Technology installing and testing a pilot plant for sugar concentration using membrane technology

Education

Since 10/2018 Diploma supplement on Innovation, Education on Intra- & Entrepreneurship, TU Wien

01/2014 – 12/2016 **PhD thesis** in the field of **biochemical engineering** working on “**Novel Methods for Escherichia coli Bioprocess Development**” at the TU Wien, Institute of Chemical, Environmental and Biological Engineering, Austria

2012 and 2013 **Merit-based scholarships** from the TU Wien

2011-2013 Master program **Technical Chemistry – Chemical process engineering** at the TU Wien, graduation with distinction

2008-2011 Bachelor program, **Technical Chemistry** at the TU Wien, Austria

03/2008 – 09/2008 Bachelor program **Electrical Engineering and Information Technology** at the TU Wien, Austria

- 07/2007-03/2008 **Community Service** as paramedic at Austrian Red Cross
- 1999 – 2007 **High school with focus on languages** (English, French, Latin) at the Bundesrealgymnasium Oberpullendorf, Austria, graduation with distinction
- 02/2005 – 07/2005 **Semester abroad** at the Scotch College Swanbourne, Australia

Skills and interests

Languages

German	Mother Tongue
English	Fluent
French	Fluent
Spanish	Basic knowledge

IT

Microsoft Office, Matlab, MODDE, Origin, SIMCA, Lucillus (PIMS), Incyght

Interests

Sports, Violinist, Travelling, Music

Awards

- 11/2017 Winner of the “**Christiana HÖRBIGER Preis**”
- 04/2016 Picked to Enter **Falling Walls Lab Austria 2016**, “Breaking the Wall of Expensive Anti-Flu Drugs”
- 12/2015 Best **Poster Award** at the 11th colloquium for Process Analytics
“Two online tools to discriminate between intact, leaky and lysed *E.coli* cells”

Publications

- 09/2018 Pekarsky A, Spadiut O, Rajamanickam V, **Wurm DJ** (2018) A fast and simple approach to optimize the unit operation high pressure homogenization - a case study for a soluble therapeutic protein in *E.coli* – accepted for publication
- 05/2018 Eggenreich B, Scholz E, **Wurm DJ**, Forster F, Spadiut O (2018) The production of a recombinant tandem single chain Fragment variable capable of binding prolamins triggering celiac disease. BMC Biotechnol 18(1):30
- 11/2017 **Wurm DJ**, Quehenberger J, Mildner J, Eggenreich B, Slouka C, Schwaighofer A, Wieland K, Lendl B, Rajamanickam V, Herwig C, Spadiut O (2018) Teaching an old pET new tricks: tuning of inclusion body formation and properties by a mixed feed system in *E. coli* Appl Microbiol Biotechnol 102:667-676 doi:10.1007/s00253-017-8641-6
- 08/2017 Eggenreich B, Rajamanickam V, **Wurm DJ**, Fricke J, Herwig C, Spadiut O (2017) A combination of HPLC and automated data analysis

- for monitoring the efficiency of high-pressure homogenization Microb Cell Fact 16:134
- 04/2017 **Wurm DJ**, Herwig C, Spadiut O (2017) How to Determine Interdependencies of Glucose and Lactose Uptake Rates for Heterologous Protein Production with *E. coli*. Methods Mol Biol (Clifton, NJ) 1586:397-408
- 03/2017 **Wurm DJ**, Hausjell J, Ulonska S, Herwig C, Spadiut O (2017) Mechanistic platform knowledge of concomitant sugar uptake in *Escherichia coli* BL21(DE3) strains. Sci Rep 7, 45072
- 02/2017 **Wurm DJ**, Marshall L, Sagmeister P, Herwig C, Spadiut O (2017) Simple monitoring of cell leakiness and viability in *Escherichia coli* bioprocesses—A case study. Eng Life Sci
- 11/2016 Slouka C, **Wurm DJ**, Brunauer G, Welzl-Wachter A, Spadiut O, Fleig J, Herwig C (2016) A Novel Application for Low Frequency Electrochemical Impedance Spectroscopy as an Online Process Monitoring Tool for Viable Cell Concentrations. Sensors 16:1900
- 09/2016 **Wurm DJ**, Slouka C, Bosilj T, Herwig C, Spadiut O (2016) How to trigger periplasmic release in recombinant *Escherichia coli*: A comparative analysis. Eng Life Sci
- 09/2016 Rajamanickam V, **Wurm D**, Slouka C, Herwig C, Spadiut O (2016) A novel toolbox for *E. coli* lysis monitoring. Anal Bioanal Chem:1-5
- 03/2016 **Wurm DJ**, Veiter L, Ulonska S, Eggenreich B, Herwig C, Spadiut O (2016) The *E. coli* pET expression system revisited—mechanistic correlation between glucose and lactose uptake. Appl Microbiol Biotechnol:1-9
- 03/2016 Eggenreich B, Willim M, **Wurm DJ**, Herwig C, Spadiut O (2016) Production strategies for active heme-containing peroxidases from *E. coli* inclusion bodies—a review. Biotechnology Reports 10:75-83
- 10/2015 Escandell J, **Wurm DJ**, Belleville M, Sanchez J, Harasek M, Paolucci-Jeanjean D (2015) Enzymatic synthesis of butyl acetate in a packed bed reactor under liquid and supercritical conditions. Catalysis Today 255:3-9