

PUBLIKATIONSLISTE

[impact x.xx = momentaner impact/x.xx = 5 Jahres impact]

VERÖFFENTLICHUNGEN (PEER REVIEWED)

1. Rimmel N, Funk I, Sieber V, Schmid J (2017) Optimization of a highly reproducible small scale bioprocess for the production of α,ω -dicarboxylic acids and validation using transcriptional analysis. *Frontiers in Microbiology* (under review). [impact 4.17/NA]
2. Petrescu MM, Stoian G, Tomulescu C, Vladu M, Schmid J, Albu B, Moscovici M (2017) Newly isolated alkaline lipase-producing *Galactomyces geotrichum*. *Biotechnology Progress* (under review). [impact 2.17/NA]
3. Harnisch F, Schmid J (2017) From emergence to consolidation or peaks: Riding the waves of bio-engineering. Editorial Special Issue. *Engineering in Life Sciences* 17(1), 4-5. [impact 2.12/NA]
4. Loscar ME, Huptas C, Wenning M, Sieber V, Schmid J (2016) Draft genome sequence of *Lysinibacillus xylanilyticus* SR-86. *Genome Announcements* 4(6):e01317-01316. [impact 1.18/NA]
5. Pick A, Beer B, Hemmi R, Momma R, Schmid J, Miyamoto K, Sieber V (2016) Identification and characterization of two new 5-keto-4-deoxy-D-Glucarate Dehydratases/Decarboxylases. *BMC Biotechnology* 16(1): p. 80. [impact 2.45/NA]
6. Schmid J, Huptas C, Wenning M (2016) Draft genome of the xanthan producer *Xanthomonas campestris* LMG 8031. *Genome Announcements* 4(5) e01069-16. [impact 1.18/NA]
7. Rütering M, Schmid J, Rühmann B, Schilling M, Sieber V (2016) Controlled production of polysaccharides – exploiting nutrient supply for levan and heteropolysaccharide formation in *Paenibacillus* sp. *Carbohydrate Polymers* 148, 326-334. [impact 4.07/4.56]
8. Rühmann B, Schmid J, Sieber V (2016) Automated modular high throughput exopolysaccharide screening platform. *Journal of Visual Experiments* 110(e53249). [impact 1.32/NA]
9. Schmid J, Fariña J, Rehm B, Sieber V (2016) Editorial: Research topic Microbial Exopolysaccharides: From genes to applications. *Frontiers in Microbiology* 7. [impact 4.17/4.17]
10. Schmid J, Heider D, Wendel N J, Sperl N, Sieber V (2016) Bacterial Glycosyltransferases: Future perspectives of a highly diverse enzyme class toward tailoring natural products. *Frontiers in Microbiology* 7. [impact 4.17/NA]
11. Rühmann B, Schmid J, Sieber V (2015) Methods to identify the unexplored diversity of microbial exopolysaccharides. *Frontiers in Microbiology* 6:565. [impact 4.17/NA]
12. Schmid J, Sieber V, Rehm B (2015) Bacterial exopolysaccharides: Biosynthesis pathways and engineering strategies. *Frontiers in Microbiology* 6:496. [impact 4.17/NA]
13. De Reese J, Sperl N, Schmid J, Sieber V, Plank J (2015) Effect of biotechnological modified alginates on LDH structures. *Bioinspired, Biomimetic and Nanobiomaterials* 1-34. [impact NA/NA]
14. Schmid J, Sieber V (2015) Enzymatic transformations involved in the biosynthesis of microbial exopolysaccharides. *ChemBioChem* (invited minireview)16(8):1141-1147. [impact 3.09/3.67]

15. Pick A, Schmid J, Sieber V (2015) Characterization of uronate dehydrogenases catalyzing the initial step in an oxidative pathway. *Microbial Biotechnology* 8:633-643. [impact 3.08/NA]
16. Rühmann B, Schmid J, Sieber V (2015) High throughput exopolysaccharide screening platform: From strain cultivation to monosaccharide composition and carbohydrate fingerprinting in one day. *Carbohydrate Polymers* 122(0):212-220. [impact 4.07/4.56]
17. Pick A, Ott W, Howe T, Schmid J, Sieber V (2014) Improving the NADH-cofactor specificity of the highly active AdhZ3 from *Escherichia coli* K-12. *Journal of Biotechnology* 189(0):157-165. [impact 2.88/3.22]
18. Schmid J, Sperl N, Sieber V (2014) A comparison of genes involved in sphingan biosynthesis brought up to date. *Applied Microbiology and Biotechnology* 98(18):7719-7733. [impact 3.81/3.76]
19. Schmid J, Koenig S, Pick A, Steffler F, Yoshida S, Miyamoto K, Sieber V (2014) Draft Genome Sequence of *Kozakia baliensis* SR-745, the First Sequenced *Kozakia* Strain from the Family *Acetobacteraceae*. *Genome Announcements* 2(3). [impact 1.18/NA]
20. Rühmann B, Schmid J, Sieber V (2014) Fast carbohydrate analysis via liquid chromatography coupled with ultra violet and electrospray ionization ion trap detection (LC-UV-ESI-MS/MS) in 96-well format. *Journal of Chromatography A* 1350(0):44-50. [impact 4.25/4.33]
21. Pick A, Rühmann B, Schmid J, Sieber V (2012) Novel CAD-like enzymes from *Escherichia coli* K-12 as additional tools in chemical production. *Applied Microbiology and Biotechnology* 97(13):5815-5824. [impact 3.81/3.76]
22. Schmid J, Meyer V, Sieber V (2011) Scleroglucan: Biosynthesis, production and application of a versatile hydrocolloid. *Applied Microbiology and Biotechnology* 91(4):937-947. [impact 3.81/3.76]
23. Schmid J, Müller-Hagen D, Bekel T, Funk L, Stahl U, Sieber V, Meyer V (2010) Transcriptome sequencing and comparative transcriptome analysis of the scleroglucan producer *Sclerotium rolfsii*. *BMC Genomics* 11:329. [impact 4.40/4.62]
24. Schwartlander R, Schmid J, Brandenburg B, Katenz E, Wolfgang F, Vondran R, Pless G, Cheng X D, Pascher A, Neuhaus P, Sauer I M (2007) Continuously microscopically observed and process-controlled cell culture within the SlideReactor: Proof of a new concept for cell characterization. *Tissue Engineering* 13, 187-196. [impact 4.48/5.44]
25. Schwartlander R, Schmid J, Katenz E, Cheng X D, Pless G, Modest D, Vondran F, Neuhaus, P, Sauer I M (2006) The slidereactor – Proof of concept. *International Journal of Artificial Organs* 29, 519-519. [impact 1.76/1.54]
26. Sauer I M, Schwartlander R, Schmid J, Efimova E, Vondran F W R, Kehr D, Pless G, Spinelli A, Brandenburg B, Hildt E, Neuhaus P (2005) The SlideReactor – A simple hollow fiber based bioreactor suitable for light microscopy. *Artificial Organs* 29(3):264-267. [impact 2.05/1.80]

BÜCHER UND BUCHKAPITEL

27. Schmid J, Rühmann B, Sieber V, Romero-Jiménez L, Sanjuán J, Pérez-Mendoza D (2017) Screening of c-di-GMP regulated exopolysaccharides in host interacting bacteria. In Host-Pathogen Interactions: Methods and Protocols, *Methods in Molecular Biology*, Springer (submitted).
28. Initiating and main Editor of *Research Topic (eBook)*, *Frontiers in Microbiology*: Microbial Exopolysaccharides: From genes to applications (2016) (Editors: Schmid J, Fariña J, Rehm B, Sieber V). Twelve highly valuable articles from various experts in the field of microbial exopolysaccharides.

29. Clavel T, Mendez D, Schmid J, Kolossa S, Matzke L (2015) Das interdisziplinäre Forschungsseminar Erkenntnisse aus dem Pilotprojekt InDisNet. *Neues Handbuch Hochschullehre: Lehren und Lernen effizient gestalten*. Ausgabe 72, Signatur E 1.11.
30. Schmid J, Mueller-Hagen D, Sieber V, Meyer V (2013) Nucleic and Protein Extraction Methods for Fungal Exopolysaccharide Producers. In: Gupta VK, Tuohy MG, Ayyachamy M, Turner KM, O'Donovan A (eds) *Laboratory Protocols in Fungal Biology. Fungal Biology*. Springer New York, pp 427-434.
31. Schmid J, Stahl U, Meyer V (2009) Genetic and Metabolic Engineering in Filamentous Fungi. In: Anke T, Weber D (eds) *Physiology and Genetics, vol 15. The Mycota*. Springer Berlin Heidelberg, pp 377-392.

WEITERE PUBLIKATIONEN

32. Schmid J, Harnisch F (2017) Das neue Wissenschaftszeitvertragsgesetz: Intention und Status quo!? Editorial *BIOspektrum* 22 (in press). [impact NA/NA]
33. Schmid J (2016) Development of a Chassis Organism for the Heterologous Expression of Exopolysaccharide-Encoding Operons. *Chemie Ingenieur Technik* 88(9): p1393-1393. [impact 0.65/NA]
34. Pick, A, Schmid J (2016) Katalytische Kaskadenreaktionen. *Chemie Ingenieur Technik* 88(9): p1385-1385. [impact 0.65/NA]
35. Funk I, Schmid J, Sieber V (2016) Enhanced Bioconversion Efficiency of Fatty Acids towards α,ω -Dicarboxylic Acids via Bioprocess Engineering. *Chemie Ingenieur Technik* 88(9): p1243-1243. [impact 0.65/NA]
36. Schmid J, Spiekermann A (2016) Constructive Alignment – Denn sie wissen, was sie tun! *Deutsche Universitätszeitung* 04/16. [impact NA/NA]
37. Blombach B, Castiglione K, Haarmann T, Schmid J (2015) Trends in der Genomeditierung für die industrielle Biotechnologie *BIOspektrum* 21(7):788-790. [impact NA/NA]
38. Schmid J, Muffler K (2015) Grüne Gentechnologie – der Ratio eine Chance. Editorial *BIOspektrum* 21, 367-367. [impact NA/NA]
39. Schmid J (2014) Generalisierte Methode der bakteriellen Genommodifikation *BIOspektrum* 20, 644. [impact NA/NA]
40. Schmid J, Rühmann B, Koenig S, Rütering M, Sieber V (2014) Biosynthese und Genomik mikrobieller Polysaccharide, *BIOspektrum* 20 (3):288-290. [impact NA/NA]
41. Bühler B, Junker B, Junne S, Kuepfer L, Mao L, Marienhagen J, Muffler K, Noack S, Olbrich C, Rihko-Struckmann L, Schallmey A, Schmid J, Stafforst T, Steingroewer J, Zurbriggen M (2014) Biotechnologie – der Schlüssel zur Bioökonomie. *DECHEMA Diskussionspaper*. [impact NA/NA]
42. Schmid J, Sieber V (2014) Weiße Gentechnologie – Von Vitaminen & Aromen zu Industriechemikalien *Band 8 der Schriftenreihe Gentechnik für Umwelt und Verbraucherschutz – 5. Fachtagung Gentechnik*. [impact NA/NA]

VORTRÄGE UND POSTERPRÄSENTATIONEN

1. Genetic toolbox for the production of synthetic microbial exopolysaccharide variants – Poster **(2016)** Biopolymere, 14.-15. November, Straubing, Deutschland.
2. Synthetic pathways towards novel terpenes and other fine chemicals – Eingeladener Vortrag, **(2016)** Scion Institut, 21. November, Rotorua, Neuseeland.
3. Biotechnologie der Schlüssel zur Nachhaltigkeit in der Chemischen Industrie? – Eingeladener Vortrag **(2016)** Fortbildungsveranstaltung für Chemiegymnasiallehrer, VCI und Kultusministerium Bayern, 7.-8. Oktober, Pelham, Deutschland
4. Synthetic Biology Approach for the Development of Customized Polysaccharides – Poster **(2016)** German conference on bioinformatics (GCB), 12.-15. September, Berlin, Deutschland
5. Enhanced bioconversion efficiency of fatty acids towards α , ω -dicarboxylic acids via bioprocess engineering – Vortrag **(2016)** ProcessNet Jahrestagung und 32. DECHEMA-Jahrestagung der Biotechnologen, 12.-15. September, Aachen, Deutschland
6. Cascades in Catalysis – Poster **(2016)** ProcessNet Jahrestagung und 32. DECHEMA-Jahrestagung der Biotechnologen, 12.-15. September, Aachen, Deutschland
7. Development of a chassis organism for the heterologous expression of exopolysaccharide encoding operons – Vortrag **(2016)** ProcessNet-Jahrestagung und 32. DECHEMA-Jahrestagung der Biotechnologen, 12.-15. September, Aachen, Deutschland
8. Biotechnological concepts for chemical and polymer production in the context of bioeconomy – Eingeladener Vortrag **(2016)** UFZ EnergyDays, 22.-23. März, Leipzig, Deutschland
9. Genome editing strategies to realize tailor made exopolysaccharides – Poster **(2016)** 1th Industrial Biotechnology Forum, 14.-15. März, Garching, Deutschland
10. Optimization and transcriptional profiling of a biotransformation process toward α , ω -dicarboxylic acids in a small scale parallel bioreactor system – Poster **(2016)** 1th Industrial Biotechnology Forum, 14.-15. März, Garching, Deutschland
11. Enzymatic functionalization of algal lipids toward biobased lubricants – Poster **(2015)** 9th International Algae Congress, 1.-3. Dezember, Lissabon, Portugal.
12. Custom-made polysaccharides for new biobased materials – Vortrag **(2015)** 2nd Sino-German Symposium DECHEMA, 6.-10. Oktober, Frankfurt, Deutschland.
13. Concepts for the production of biomass derived monomers and polymers – Eingeladener Vortrag **(2015)** Applied Microbiology Symposium on the occasion of the visit of Prof. N. Louise Glass (UC Berkeley, USA), 22. September, Freising, Deutschland.
14. Modular Exopolysaccharide Screening Platform – Poster **(2015)** 8th European Symposium on Biopolymers, 16.-18. September, Rom, Italien. (*Awarded with Poster Prize*)
15. Novel Thickeners: Bacterial Exopolysaccharides for Industrial Applications – Poster **(2015)** 8th European Symposium on Biopolymers, 16.-18. September, Rom, Italien.
16. Novel Bacterial Exopolysaccharide Variants Obtained by Screening and Engineering Approaches – Vortrag **(2015)** 8th European Symposium on Biopolymers, 16.-18. September, Rom, Italien.

17. Microbial exopolysaccharides and enzymatic reaction cascades toward biobased chemical production – Eingeladener Vortrag **(2015)** Symposium CONICET 28. August, Catamarca, Argentinien.
18. Microbial exopolysaccharides and enzymatic reaction cascades toward biobased chemical production – Eingeladener Vortrag **(2015)** Symposium CONICET/PROIMI, 26. August, San Miguel de Tucumán, Argentinien.
19. Identification of Organisms Capable of Producing Ethylene from Renewable Resources – The Farmstead Biorefinery Approach – Poster **(2015)** BIOTRANS, 26.-30. Juli, Wien, Österreich.
20. 5-keto-4-deoxy-D-Glucarate Dehydratase/Decarboxylase – Developing a pH-shift assay for activity measurements – Poster **(2015)** BIOTRANS, 26.-30. Juli, Wien, Österreich.
21. Optimization and transcriptional profiling of an biotransformation process toward α,ω -dicarboxylic acids in small scale parallel bioreactor system – Poster **(2015)** DECHEMA Himmelfahrtstagung, 11.-13. Mai, Hamburg, Deutschland.
22. Strategies to obtain novel – tailor made – microbial exopolysaccharides – Eingeladener Vortrag **(2014)** 1th German Symposium on Biobased Chemicals and Biorefinery, 7.-10. Oktober, Peking, China.
23. Biotechnological requirements for sustainability in a bioeconomy – Eingeladener Vortrag **(2014)** International Bioeconomy conference, 22.-23. Mai, Halle, Deutschland.
24. Engineering of the cofactor dependence of an alcoholdehydrogenase for its application in synthetic cascades – Poster **(2014)** Multistep Enzyme Catalyzed Processes Congress, 7.-10. Mai, Madrid, Spanien.
25. Process optimization of biotransformation based bifunctional monomer generation via *Candida tropicalis* – Poster **(2014)** 7th Workshop on Fats and Oils as Renewable Feedstock for the Chemical Industry, 23.-25. März, Karlsruhe, Deutschland.
26. Novel microbial exopolysaccharides identified by a high throughput environmental screening approach – Vortrag und Poster **(2013)** European Symposium on Biopolymers 7.-9. Oktober, Lissabon, Portugal.
27. Novel biorefinery concepts for a biobased economy – Eingeladener Vortrag und Poster **(2013)** German-American Frontiers of Engineering Symposium, 26.-29. April, Irvine, Californien (*eingeladen durch die Alexander von Humboldt Stiftung*).
28. Neue mikrobielle Hydrokolloide als Alternative zu chemikalien-basierten Polymeren – Vortrag **(2013)** Symposium Bioökonomie in Deutschland und Frankreich – Rohstoffe nutzen, 20. Juni, Straubing, Deutschland.
29. Replacement of petropolymers by novel biopolymers – Biotechnological Production of Exopolysaccharides – Poster **(2012)** Biopolymers, 7.-10. Oktober, Cairns, Australien.
30. Biotechnological Production of Exopolysaccharides – Poster **(2012)** Biopolymere, 20. November, Straubing, Deutschland.
31. Polysaccharides as novel biomaterials – Vortrag **(2011)** 1th European Congress of Applied Biotechnology, 25.-29. September, Berlin, Deutschland.
32. Nachwachsende Rohstoffe als Quelle für Kunststoffe und Spezialchemikalien – Vortrag **(2011)** Brau Breviale, 9.-11. November, Nürnberg, Deutschland.
33. *Escherichia coli*: Still unexhausted source for new biocatalysts – Poster **(2011)** BIOTRANS, 2.-6. Oktober, Giardini, Naxos, Griechenland.

34. Nachwachsende Rohstoffe als Quelle für Kunststoffe und Spezialchemikalien – Eingeladener Vortrag **(2011)** 5. Wasserseminar, Competence Pool Weihenstephan, 15.-16. September, Waidring, Österreich.
35. Transcriptome analysis of the scleroglucan producer *Sclerotium rolfsii* – Poster **(2010)** European Conference on Fungal Genetics, 29. März-1. April, Leeuwenhorst, Niederlande.
36. Replacement of petropolymers by novel biopolymers – Biotechnological Production of Exopolysaccharides – Poster **(2010)** Biopolymere, 11. November, Straubing, Deutschland.
37. A transcriptomic approach to isolate genes involved in scleroglucan production by *Sclerotium rolfsii* – Eingeladener Vortrag **(2008)** 4th Hungarian Mycological Conference, 29.-31. Mai, Debrecen, Ungarn.
38. Unravelling The Complex Transcriptional Regulation Of The *afp* Gene Encoding The Antifungal Protein AFP of *Aspergillus giganteus* – Poster **(2008)** XX International Congress of Genetics, 12.-17. Juli, Berlin, Deutschland.
39. A transcriptomic approach to isolate genes involved in scleroglucan production of *Sclerotium rolfsii* – Poster **(2007)** 8th VAAM Symposium Molecular Biology of Fungi, 23.-26. September, Hamburg, Deutschland.
40. *Agrobacterium tumefaciens*-mediated and protoplast-mediated transformation of the basidiomycete *Sclerotium rolfsii* – Poster **(2006)** European Conference On Fungal Genetics, 8.-11. April, Wien, Deutschland.
41. A proteomic approach for the basidiomycete *Sclerotium rolfsii* – Poster **(2006)** European Conference On Fungal Genetics, 8.-11. April, Wien, Deutschland.