

## PROGRAMME

3 – 6 November 2024

Evangelische Akademie Tutzing, Lake Starnberg, Germany

### 61<sup>st</sup> Tutzing Symposion 2024

Phytoextraction: A sustainable  
resource for innovative products –  
Trends, perspectives and visions

[www.dechema.de/en/61TUSY2024](http://www.dechema.de/en/61TUSY2024)



## INVITATION

The Subject Division *Plant based Extracts - Products and Processes* of DECHEMA/VDI section *Fluid Dynamics and Separation Technology* (DECHEMA - Society for Chemical Engineering and Biotechnology), is pleased to invite you to the

**61<sup>st</sup> Tutzing Symposium:**  
**Phytoextraction – A sustainable resource for innovative products**  
**Trends, perspectives and visions**

(3 – 6 November 2024)

This symposium's objective is to generate a new roadmap for the next decades of the phyto industry together with all participants along the whole value chain. Therefore, status of the existing roadmap of 2015 is presented and discussed as a common starting point in pre-conference workshops.

Plant based extracts, i.e. phytoextracts, are important ingredients in a wide variety of market segments from pharmaceuticals, food additives and fragrances to agrochemicals and functional materials. The generation of added value is as widespread from cultivation and harvesting over processing up to marketing, whereas the products are per definition biodegradable. Parts of this economy are highly regulated and the regulation varies depending on country and region. Consumers demand green products by green technologies from sustainable resources under resilience considerations to reach political climate neutrality goals. Nevertheless, almost all European industries involved are under increasing international competition pressure.

The symposium is designed to foster exchange and discussion in the areas of sustainable plant production, novel manufacturing technologies, sustainable extraction, distillation and purification processes, application and marketing of extracts. Novel cultivation and harvesting methods should be as well addressed as demanded circular- and bioeconomy changes within green processing technologies.

The focus themes are complemented by status and trends analysis, ethical views, practical "exercises" with products containing or consisting of extracts. During workshops a new joint innovation vision for the next decades will be defined. This follows up on the successfully executed roadmap set at the "Tutzing Symposium" 2015.

The "61<sup>st</sup> Tutzing Symposium" 2024 will again provide a unique platform and ample time to exchange ideas between leading scientists and decision makers.

The venue is located directly at the shores of Lake Starnberg 40 km south of Munich and is only about 30 (60) minutes away by train from Munich central station (airport).

See [www.ev-akademie-tutzing.de/en/](http://www.ev-akademie-tutzing.de/en/) for further details.

We are looking forward to meeting you in Tutzing.

## COMMITTEE

### SCIENTIFIC COMMITTEE

Franziska <b>Bezold</b>	Candoro ethics GmbH NM, Neumarkt
Matthias <b>Eisner</b>	Yili Innovation Center Europe, Wageningen/NL
Dieter <b>Gerard</b>	Flavex Naturextrakte GmbH, Rehlingen
Stefan <b>Hanstein</b>	Fraunhofer IWKS, Alzenau
Sandra <b>Miklos</b>	Cfm Oskar Tropitzsch GmbH, Marktredwitz
Josef <b>Schulmeyr</b>	Hopfenveredlung St. Johann GmbH, Wolnzach
Michael <b>Schulte</b>	Merck KGaA, Darmstadt
Jochen <b>Strube</b>	TU Clausthal (Chair)
Melanie <b>Stürtz</b>	Symrise AG, Holzminden
Martin <b>Tegtmeier</b>	TU Clausthal
Jonas <b>Treutwein</b>	Trifolio-M GmbH, Lahnu (Chair)
Corinna <b>Urmann</b>	TUM Campus Straubing, Hochschule Weihenstephan-Triesdorf, Straubing
Evelyn <b>Wolfram</b>	Züricher Hochschule für Angewandte Wissenschaften, Wädenswil/CH



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ESBES  
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Biochemical Engineering Science



DECHEMA  
Gesellschaft für Chemische Technik  
und Biotechnologie e.V.

## PROGRAMME

Sunday, 3 November 2024

15:00	Registration
16:00	<b>INTERACTIVE PRE-SYMPOSIUM WORKSHOPS ROADMAP 2015 AND STATUS 2024</b>
	<b>Workshop 1: COGs vs. GWP Reduction</b> Chairs: J. Strube, M. Tegtmeier
	<b>Workshop 2: Recycling and Membrane Technology</b> Chairs: A. Schmidt, W. Riedl
	<b>Workshop 3: Energy Integration</b> Chairs: A. Uhl, J. Treutwein
17:45	End of the pre-symposium workshops
18:00	Dinner
20:00	Chair: M. Tegtmeier <b>EVENING LECTURE</b> <b>Phytopharmaceuticals – more than just phytoextracts</b> R. Daniels, University of Tübingen
21:00	Get-together at the parlours of the Castle. Drinks and wine on self-paid basis.



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## PROGRAMME

Monday, 4 November 2024

08:00	Breakfast
	<b>PLANT PRODUCTION OF THE FUTURE - MEDICINAL SUSTAINABLE PLANT SOURCING / CULTIVATION</b> <i>Chair: M. Tegtmeier</i>
09:00	<b>Working Group Phytoextraction: Roadmap 2015, status 2024</b> J. Strube, TU Clausthal; J. Treutwein, Trifolio-M GmbH, Lahnau
09:20	<b>Sweet - bitter - salty: Natural products as taste modifiers</b> K. Siems, AnalytiCon Discovery GmbH, Potsdam
09:40	<b>Future challenges for analysis and quality control of herbal extracts</b> H. Sievers, Phytolab GmbH & Co. KG, Vestenbergsgreuth
10:00	Discussion with all speakers of this session
10:30	Coffee break
	<b>PLANT PRODUCTION OF THE FUTURE - NUTRITION SUSTAINABLE PLANT SOURCING / CULTIVATION</b> <i>Chairs: F. Beneke / A. Wenzel</i>
11:00	<b>Purpose-driven technology – Farming 4.0</b> T. Köller, John Deere Walldorf GmbH & Co. KG
11:20	<b>Future farming systems for raw materials</b> <u>F. Beneke</u> , University Göttingen; A. Wenzel, Fraunhofer IOSB, Illmenau
11:40	<b>Data driven approaches in future plant cultivation systems</b> <u>A. Wenzel</u> , Fraunhofer IOSB, Illmenau; F. Beneke, University Göttingen
12:00	Discussion with all speakers of this session
12:30	Lunch break
14:20	<b>Welcome address</b> H. Meyer-Magister, deputy director of the Evangelische Akademie Tutzing

## PROGRAMME

Monday, 4 November 2024

	<b>GREEN TECHNOLOGY, WASTE VALORIZATION, CIRCULAR ECONOMY</b> <i>Chairs: F. Bezold / J. Strube</i>
14:30	<b>Enabling technologies in semi-industrial green extraction of plant material</b> G. Cravotto, University of Turin/I
14:50	<b>Sustainable plant production and processing technology – perspectives from the flavor industry</b> M. Stürtz, Symrise AG, Holzminden
15:10	Discussion with all speakers of this session
15:30	Coffee break
16:10	<b>Natural remedies – trends and perspectives</b> E. Wolfram, Zürich University of Applied Sciences, Wädenswil/CH
16:30	<b>Valuable extractives from Nordic trees</b> T. Holmbom, Separation Research Ltd., Turku/FIN
16:50-17:10	Discussion with all speakers of this session
17:15	Board meeting of the subject division <i>Plant based Extracts - Products and Processes</i> of DECHEMA/VDI section <i>Fluid Dynamics and Separation Technology</i>
18:15	Dinner
20:00	<i>Chair: S. Miklos</i> <b>TANDEM EVENING LECTURE</b> <b>Importance of plants for nutrition and their waste in the future</b> M. Eisner, Yili Innovation Center Europe, Wageningen/NL; V. Heinz, DIL - Deutsches Institut für Lebensmitteltechnik e.V., Quakenbrück
21:00	Get-together at the parlours of the Castle. Drinks and wine on self-paid basis

## PROGRAMME

Tuesday, 5 November 2024

08:00	Breakfast
	<b>CLIMATE NEUTRAL EXTRACTS</b> <i>Chair: D. Gerard</i>
09:00	<b>High concentrated Arnica montana CO<sub>2</sub>-extracts for topical use – ensuring raw material availability by breeding and cultivation</b> F. Eickmeyer, ESKUSA GmbH, Parkstetten; M. Klein, FLAVEX Naturextrakte GmbH, Rehlingen
09:20	<b>Legume extraction and bioactive compounds – What about chemical stability and reactivity?</b> S. Rohn, TU Berlin
09:40	<b>Pressurized hot water extraction of biomass and industrial side-streams</b> P. Kilpeläinen, Natural Resources Institute Finland (Luke), Helsinki/FIN
10:00	Discussion with all speakers of this session
10:30	Coffee Break
	<b>CLIMATE NEUTRAL EXTRACTS</b> <i>Chairs: J. Treutwein / S. Hanstein</i>
11:00	<b>Copyright by nature: What (artificial) membranes can(not) do in separation technology</b> W. Riedl, Fachhochschule Nordwestschweiz, Muttenz/CH
11:20	<b>From plant to fine chemical via continuous large scale manufacturing</b> P. Bonte, Ajinomoto NaturalSpecialties, Wetteren/B
11:40	<b>Industrialization gaps for innovations like green technology, digitalization, quality by design and PAT</b> A. Schmidt, TU Clausthal; J. Treutwein, Trifolio-M GmbH, Lahnau
12:00	Discussion with all speakers of this session
12:30	Lunch break

## PROGRAMME / WORKSHOPS

Tuesday, 5 November 2024

	<b>PARALLEL WORKSHOPS</b>
14:30	<b>Workshop 1: Industrialisation</b> Needs, industrialisation challenges, solution approach <i>Chairs: J. Strube, F. Bezold, D. Gerard</i>
	<b>Workshop 2: Waste Valorisation</b> Waste streams, amounts and potential products <i>Chairs: S. Hanstein, C. Urmann, M. Tegtmeier</i>
	<b>Workshop 3: Technology Innovation</b> Status, needs, potential GWP versus COGs towards climate neutrality and profitability <i>Chairs: J. Treutwein, A. Schmidt</i>
17:00	Coffee break <i>Chair: C. Urmann</i>
17:30	<b>Plantpolysaccharides vs. Exopolysaccharides</b> B. Rühmann, TUM Campus Straubing
17:45	<b>Monoterpenes as plant-based platform molecules for plastic applications</b> P. Stockmann, Fraunhofer IGB, Straubing
18:00	Discussion with all speakers of this session
18:15	Dinner
20:30	Get-together at the parlours of the Castle. Drinks and wine on self-paid basis

### WORKSHOPS

The workshops constitute an essential part of the Symposium. The goal is to work out the status of the respective topics and the needs for action in small groups of interdisciplinary experts. An open discussion of the participants with various experiences and views will offer a great chance to disclose significant and trend-setting perspectives.

Moderators will conduct the workshops by following a particular flow chart. They will summarize and present the results to the plenum on Wednesday, 6 November 2024, and the proposals will be discussed there.

The workshops are obligatory.

## PROGRAMME

Wednesday, 6 November 2024

08:00	Breakfast
	<b>INNOVATION</b> <i>Chairs: C. Urmann / E. Wolfram</i>
09:00	<b>CO<sub>2</sub> Certificates, CBAM &amp; alike – European directives as guard rails for a sustainable production?</b> D. Köster, ThyssenKrupp Industrial Solutions AG, Dortmund
09:20	<b>Plant extractions - Bavarian Orris and more</b> W. Kunz, Universität Regensburg
09:40	<b>Certification of bio-based products: ISCC PLUS and current developments in the field of product carbon footprints</b> S. Gärtner, Meo Carbon Solutions GmbH, Cologne
10:00	<b>How does the future of Herbal Medicinal Products look like?</b> R. Roth-Ehrang, Finzelberg GmbH & Co. KG, Andernach
10:20	Discussion with all speakers of this session
10:50	Coffee Break
11:20	<i>Chairs: J. Strube, J. Treutwein</i> <b>Presentation of the results of the workshops and final discussion</b>
12:35	Closing remarks
12:40	Lunch
14:00	End of the Symposium

(as of October 2024, subject to change)

## GENERAL INFORMATION

### VENUE

Auditorium of the Evangelische Akademie Schloss Tutzing  
Schlossstrasse 2-4  
82324 Tutzing, Germany

Phone: +49 (0)8158 251-0

Internet: [www.ev-akademie-tutzing.de](http://www.ev-akademie-tutzing.de)

Please find more information about the public transportation via  
[https://dechema.de/en/61TUSY2024\\_venue](https://dechema.de/en/61TUSY2024_venue).

The conference office on-site is open from 3 November 2024 at 3 p.m. and during the whole Symposium.

### REGISTRATION FEE\*

Participant from:	Member**	Non-member
Industry	780 €	795 €
Academia	480 €	495 €

\* No VAT requested according to § 4.22 UStG

\*\* Personal DECHEMA-member

The capacity of the auditorium of the Evangelische Akademie is limited to 100 participants.

The printed programme brochure will be handed out on-site. The list of participants and the book of abstracts will be available online.

### REGISTRATION

Please register online via [https://dechema.de/en/61TUSY2024\\_registration](https://dechema.de/en/61TUSY2024_registration). Once the booking has been processed, the participant is sent confirmation and an invoice via e-mail.

For more details about the online registration, booking and costs of accommodation and meals please visit the conference website

[https://dechema.de/en/61TUSY2024\\_accommodation\\_meals](https://dechema.de/en/61TUSY2024_accommodation_meals).

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