



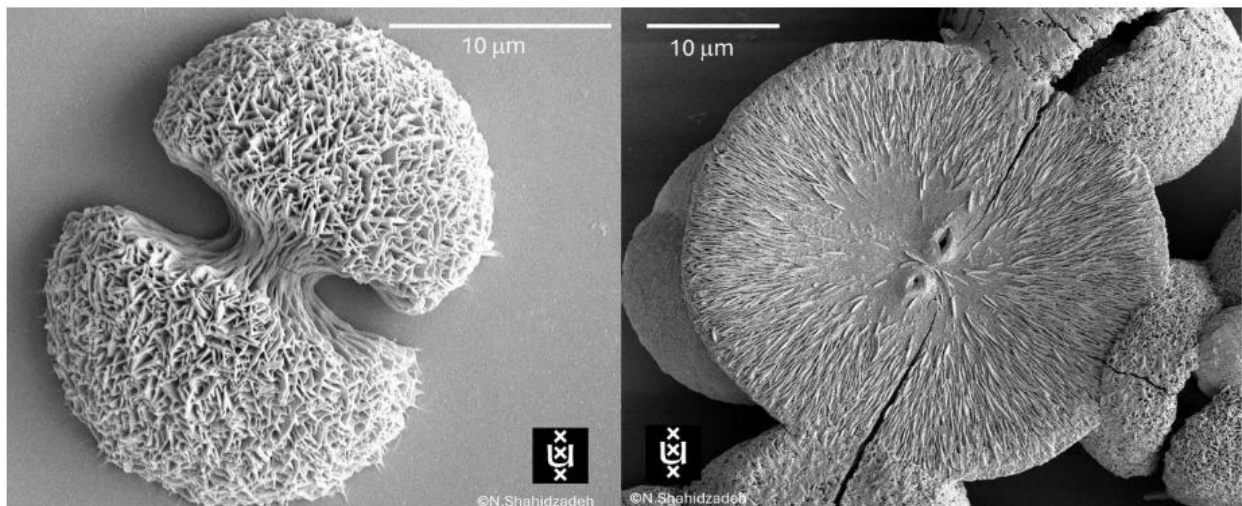
DUTCH
ASSOCIATION
FOR
CRYSTAL
GROWTH

nederlandse vereniging voor kristalgroei

FACET

DACG Newsletter

Newsletter of the
Dutch Association for Crystal Growth (DACG),
section of the KNCV and the NNV.



FACET Issue 1/2026

May 2026

Editor: Bart Zwijnenburg (info@dacg.nl)

Table of Contents

| | |
|--|----|
| From the editor | 2 |
| Coming DACG spring symposium at Symeres, Weert | 3 |
| DACG symposium 31 October 2025, Nobian, Enschede | 4 |
| De Kristallentuin – crystal photo book by Machiel Zwarts | 6 |
| A selection of recent publications | 7 |
| Recent Theses | 8 |
| Appointments | 9 |
| Agenda | 10 |

DACG board

President: René Steendam (Ardena)

Secretary: Antoine van der Heijden (TNO / TU Delft)

Treasurer: Annemerel Mol (Wageningen UR)

FACET: Bart Zwijnenburg (Nobian)

Elias Vlieg (Universiteit Nijmegen)

Anne Claude (University of Amsterdam)

If you are interested in a role within the DACG just contact us: info@dacg.nl.

Cover photo

Two examples of spherulites – the beautiful and mesmerizing microscopic structures that determine the shape of a crystal.

A study done in Shahidzadeh's lab at the Institute of Physics / Van der Waals Zeeman-institute, reveals how neatly ordered (hemi-) spherical or pancake-like structures in nature can emerge from completely disordered salt solutions.

Image provided by Noushine Shahidzadeh, from:

Controlled spherulitic crystal growth from salt mixtures. Tess Heeremans, Simon Lépinay, Romane Le Dizès Castell, Isa Yusuf, Paul Kolpakov, Daniel Bonn, Michael Steiger and

Noushine Shahidzadeh. *Commun Chem* **9**, 90 (2026).

<https://doi.org/10.1038/s42004-026-01892-0>

From the editor

Dear all,

New FACET, new editor: with Joop ter Horst leaving the board, a new editor had to be appointed. Bart Zwijnenburg (currently employed by Nobian) has been appointed to the board and has taken the responsibility to compile FACET.

Your ideas for the FACET are still welcome! For instance, submitting a nice cover photo is highly appreciated. It is easy to contribute to the FACET. Just send an email with your contribution to the editor via info@dacg.nl.

Your contribution will keep FACET relevant for the crystal growth community. With Joop's experience the editor's shoes are quite big to fill and we thank Joop for his many contributions to FACET.

Looking forward to seeing you at the symposium in May!

Bart Zwijnenburg

Coming DACG spring symposium at Symeres, Weert

You can register for the coming DACG symposium at the DACG website:

<https://dacg.nl/event/dacg-spring-symposium-2026/>

Date: 29 May 2026

Restaurant / Partycentrum “De Sluis”
Industriekade 58
6006 SJ Weert

Preliminary Program

10:00 – 10:30 Registration and coffee / tea

10:30 – 11:00 Introduction to Symeres – Edwin Aret (Symeres)

11:00 – 11:30 How solids shape API development – Chantalle van Berkel (Symeres)

11:30 – 12:00 Asymmetric amplification in reactive chiral crystallization – Sjoerd van Dongen (SolarFoil)

12:00 – 12:30 Crystallization pressure (working title) – Speaker t.b.c. (Radboud University)

12:30 – 13:30 Lunch

13:30 – 14:00 Revealing the Unseen and Undetectable: How Electron Diffraction Redefines Solid Form Characterization – Danny Stam (Eldico)

14:00 – 14:30 Presentation

14:30 – 15:00 Presentation

15:00 – 15:30 Coffee / tea + Transfer from “De Sluis” to Symeres (5 min by car)

15:30 – 16:15 Lab tour Symeres

16:15 – 17:00 Drinks / nibbles

DACG symposium 31 October 2025, Nobian, Enschede

Antoine van der Heijden

On 31 October 2025, the DACG organized its fall symposium and general members meeting in Enschede, hosted by Nobian. In November 2024, Nobian's research department, with around 20 researchers, moved into The Gallery building in the heart of the campus of the University of Twente.

Symposium program and speakers

After the opening of the symposium by **René Steendam** (Chair DACG), **Paul Verwer** (Nobian) kicked off with a presentation on *"Refining lithium: variations on the theme of reciprocal salt systems"*. **Anne Claude** (University of Amsterdam) followed presenting results related to her PhD research on the *"Understanding the dehydration mechanism of hydrated salts"*. The latest developments on brine treatment were presented by **Norbert Kuipers** (Wageningen University & Research) in his presentation entitled *"Brine treatment for water and salt recovery by membrane distillation crystallization"*. This presentation closed the morning session of the symposium.

After lunch and the General Members Meeting (see below), the symposium continued with a brief presentation by **Elias Vlieg** (Radboud University Nijmegen) to introduce Hugo Meekes, who will retire early 2026 after a long career in crystallization and crystal growth. The subsequent presentation by **Hugo Meekes** (Radboud University Nijmegen) provided an interesting overview of the very diverse topics he has been working on starting with his PhD research on the optical and dynamical properties of modulated crystals (1983-1987), and, as an assistant professor in the department Solid State Chemistry, on crystal morphology prediction, polymorphism, co-crystals and deracemization with his presentation entitled *"My counterpoints in crystal growth"*. **Susanna Bertuletti** (AMOLF) followed with a presentation on *"Ultra-fast deracemization via metastable phases"*. The final presentation of the symposium was given by **Ivan Buijnsters** (Delft University of Technology) on *"Boron-doped diamond: A highly versatile electrode material"*.



Paul Verwer (Nobian)



Anne Claude (University of Amsterdam)



Norbert Kuipers (WUR)



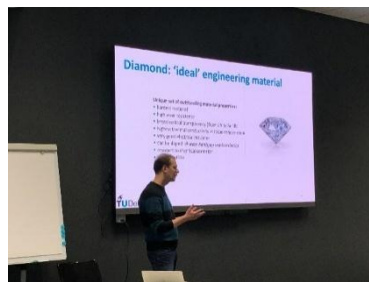
Elias Vlieg introducing Hugo Meekes



Hugo Meekes (Radboud University Nijmegen)



Susanna Bertuletti (AMOLF)



Ivan Buijnsters (Delft University of Technology)



Audience of the DACG symposium

General Members Meeting

After the lunch break the General Members Meeting of the DACG was held, chaired by René Steendam. The minutes of this meeting will be shared separately.

Facility tour

After a visit to Nobian's labs, including a display showing the history of salt production in The Netherlands, the symposium closed with an informal get-together and drinks. The DACG symposium was attended by 31 participants. On behalf of the DACG board, we acknowledge Bart Zwijnenburg and his team, for organizing this symposium.

De Kristallentuin – crystal photo book by Machiel Zwarts

Machiel Zwarts is a retired neurologist. With a fascination for nature, photography as a long-standing hobby, a knack for microscopes from his previous work, and a wealth of curiosity, he found his way into the world of crystals.



Taking photos of crystals is essentially a form of nature photography, says Machiel. He creates the crystals himself from, for example, amino acids, salt, or even paracetamol. In the book, he takes you on a journey of discovery over more than 150 pages. Machiel calls The Crystal Garden "a true coffee table book" on his website.

Published in 2025 | Available by email: mjzwarts@gmail.com | Price: €65

A selection of recent publications

Elena Averina, Hartmut Fischer, Olaf C.G. Adan, Henk P. Huinink, Thermoplastic Network Formation as a Method for Stabilizing Salt Hydrate Particles, *Molecules* 2025, 30(23), 4519.
<https://doi.org/10.3390/molecules30234519>

Tom E. de Vries, Hugo Meekes, Elias Vlieg, René de Gelder, Cocrystals and Solvates are Not the Same: A Network Perspective, *ChemPhysChem*. 2025, 26 e202500338.
<https://doi.org/10.1002/cphc.202500338>

Tess Heeremans, Simon Lépinay, Romane Le Dizès Castell, Isa Yusuf, Paul Kolpakov, Daniel Bonn, Michael Steiger, Noushine Shahidzadeh, Controlled spherulitic crystal growth from salt mixtures. *Commun Chem* 9, 90 (2026).
<https://doi.org/10.1038/s42004-026-01892-0>

Anne Claude, Rosa Sinaasappel, Jorik van de Groep, Noushine Shahidzadeh, Metastability Limit of Hydrated Phases of Sodium Sulfate under Temperature Cycling for Heat Storage. *J.Phys.Chem. C* 2026, 130(10), 3721-3729.
<https://pubs.acs.org/doi/10.1021/acs.jpcc.5c08083>

Recent Theses

Lisette E.A. Wijkhuijs, Graphene Based Phase Change Composites for Heat Storage

PhD defense: 13 January 2026, TU/e

Promoter: Heiner Friedrich, Remco Tuinier

Co-promoter: Henk P. Huinink

This thesis focuses on improving the performance of paraffin-based Phase Change Materials (PCMs) through the integration of high thermally conductive additives, with an emphasis on understanding and optimizing the network of graphene nanoplatelets (GNPs).

<https://research.tue.nl/nl/publications/graphene-based-phase-change-composites-for-heat-storage/>

Micheala C. Eberbach, Salt Hydration in Pores for Heat Storage

Ph.D. defense: 1 April 2026, TU/e

Promoter: Olaf C.G. Adan, Jörg Worlitschek

Co-promoter: Henk P. Huinink

Salt hydrates are the favored thermo-chemical materials for residential application due to their temperature release in the desired range. However, these salts can have stability issues such as expansion, shrinkage, conglomeration, and deliquescence. To compensate for these drawbacks, salt hydrates can be stabilized inside porous materials. In this thesis, we focus on the changes to the phase transitions of salt hydrate when put under confinement inside porous materials and how these changes can be utilized for thermal energy storage applications in residential homes.

<https://research.tue.nl/nl/publications/salt-hydration-in-pores-for-heat-storage/>

Sjoerd W. van Dongen, Reactive crystallization of chiral molecules: Asymmetric amplification and deracemization

Ph.D. defense: 14 April 2026, Amolf, UvA

Promoter: Wim L. Noorduin

Co-promoters: B. Kaptein, R.M. Kellogg

One of the most promising methods to achieve full chiral amplification is crystallization-induced deracemization, in which even minute chiral imbalances can already be amplified to complete enantiomeric purity. The thesis explores the fundamental mechanism of the crystallization-induced deracemization process, provide tangible guides for its practical implementation, and pave the way to expanding its scope beyond the statistically limited group of thermodynamically favoured conglomerates.

<https://pure.uva.nl/ws/files/310081598/Thesis.pdf>

Appointments

In October 2025, **Henk Huinink** has been appointed as full professor at TU/e at the Department of Applied Physics and Science Education. Since In 2013, motivated by the urgent need for sustainable solutions, he refocused his work on materials for thermal energy storage, aiming to contribute to the energy transition. This led to pioneering research on thermochemical materials for compact, loss-free heat storage, and fruitful collaborations with TNO, even resulting in a spin-off company.

<https://www.tue.nl/nieuws-en-evenementen/nieuwsoverzicht/03-10-2025-celebrating-a-milestone-prof-henk-huinink-appointed-to-full-professor>

In October 2025, **Joop H. ter Horst** stepped down from the DACG Board. During the ALV, **Bart Zwijnenburg** was elected as board member.

Since January 1, 2026, Dr **Renata van der Weijden** has been appointed professor “Circularity in Delta Systems” at the Delta Climate Center in Vlissingen, seconded by the Wageningen University & Research (WUR). She will be working on the resource recovery and re-use, specifically of metals and nutrients using (bio)crystallization, from aqueous and solid streams to promote a healthy environment and a circular economy. The inaugural address of prof dr Van der Weijden will take place on 27 November, 2026 at the Wageningen University & Research.



More information:

<https://deltaclimatecenter.nl/en/renata-van-der-weijden.html>

Agenda

- June 8-11, 2026 9th International Workshop on Crystal Growth Technology (IWCGT-9), Berlin, Germany

<https://iwcgt-9.ikz-berlin.de>

- June 29 – July 1, 2026 British Association of Crystal Growth (BACG) Annual Meeting, Manchester, UK

<https://bacg.org.uk/>

- August 11 - 18 2026 Twenty-Seventh Congress and General Assembly of the International Union of Crystallography, Calgary, Canada

<https://event.fourwaves.com/iucr-2026/pages>

- 2-4 September 2026 BIWIC: 31st International Workshop on Industrial Crystallization, Winterthur, Switzerland

https://chemtech.sulzer.com/biwic2026?hs_preview=VjHXEmCq-354561206503

- 6-9 September 2026 ISIC: 23rd International Symposium on Industrial Crystallization, Budapest, Hungary

<https://akcongress.com/isic2026/>

- 4 November 2026 DACG Fall Meeting, Utrecht University
- 14-16 June 2027 BRIDGE Delft, Netherlands
- 14-17 June 2027 11th World Salt Symposium, Dublin, Ireland

<https://worldsaltsymposium.com/>

- July 25-28, 2027 9th European Conference on Crystal Growth (ECCG-9), Potsdam, Germany

<https://www.encg.info/events.html#>