

# DACG Spring Symposium 2022

25 May 2022, AMOLF, Amsterdam

On 25 May, 2022, the DACG organized its spring meeting hosted at AMOLF, Amsterdam. The local organizers were Wim Noorduin and Marloes Bistervels. This was the first 'live' meeting after two years of COVID19 during which several symposia had to be either cancelled or organized online. Traditionally the spring meeting is primarily intended to give the floor to PhD students to present their (intermediate) results as a preparation for presenting their research for a larger audience, e.g. at international conferences. During this symposium also the KNCV Piet Bennema Crystal Growth Award 2021 ceremony was scheduled. This was originally planned for the symposium in October last year, but since this was an online symposium, it was decided to postpone the ceremony to this spring meeting.



From left to right: **Wim Noorduin**, **Carmen Guguta** and **Marloes Bistervels**

After the opening of the symposium by Carmen Guguta (DACG-chair) and Wim Noorduin (AMOLF), the first lecture was given by Marloes Bistervels (AMOLF) presenting her results on light-directed crystallization: by using UV-light she managed to control the formation of nanocomposites very precisely. After this opening lecture, Sevgi Polat (TU Delft) presented results from her PhD research on the effect of hyaluronic acid on the structure and morphology of calcium oxalate crystals. Rozeline Wijnhorst (University of Amsterdam) gave a presentation on 'floppy' hydrated salt crystals: microcrystals of natural inorganic salt hydrates lose their facets and become soft and deformable when in contact with their saturated salt solution at their deliquescence point.



**Marloes Bistervels** (AMOLF): *Light-directed crystallization*



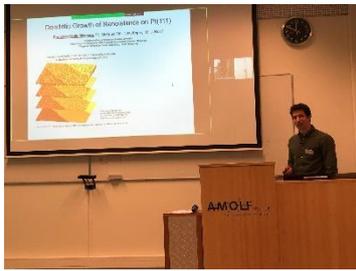
**Sevgi Polat** (TU Delft): *Elucidating the effect of hyaluronic acid on the structure and morphology of calcium oxalate crystals*



**Rozeline Wijnhorst** (University of Amsterdam): *'Floppy' hydrated salt crystals*

Just before lunch, a speed-dating session was organized by Marloes Bistervels. Participants were divided into groups consisting of a mix of people working either at academia, research institutes or industry. Within each group people could shortly introduce themselves and answer each other's questions. The speed-dating event was an informal way to get to know new people in the field of

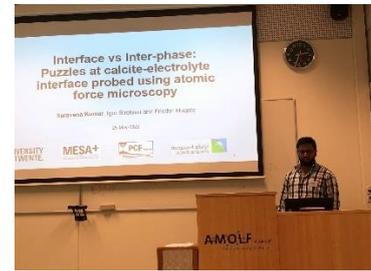
crystallization, in this way lowering the threshold to contact people you do not (yet) know. During lunch there was the possibility to have a look at the posters and discuss the content with the presenting PhD students.



**Francesc Valls Mascaro** (Leiden Univ):  
*Dendritic growth of nanoislands on Pt(111)*



**Sergej Seepma** (Utrecht Univ):  
*{Ba<sup>2+</sup>};{SO<sub>4</sub><sup>2-</sup>} of BaSO<sub>4</sub> crystal nucleation and growth in aqueous solutions: a dynamic light scattering study*



**Saravana Kumar** (Univ of Twente):  
*Probing the dynamic nature of calcite-electrolyte interface using atomic force microscopy*

After many years, we were able to revive the contacts with the geochemistry group at the University of Utrecht and Sergej Seepma presented his results on the asymmetrical dependence on {Ba<sup>2+</sup>};{SO<sub>4</sub><sup>2-</sup>} of BaSO<sub>4</sub> crystal nucleation and growth in aqueous solutions using dynamic light scattering. Saravana Kumar (University of Twente) shared his results on the dynamic nature of calcite-electrolyte interface probed with atomic force microscopy.

After the last presentation from the regular symposium programme, the KNCV Piet Bennema Crystal Growth Award 2021 was handed out by Rob Geertman (member of the jury) to Ricardo Cunha for his PhD research performed at the Wageningen University & Research (WUR) on “*Anaerobic calcium phosphate granulation*”. The jury, consisting of Dominique Maes (chair), Rob Geertman and Paul Poedt, selected the PhD thesis of Ricardo Cunha from three nominated PhD theses. One of the two other nominated candidates, Sander Brugman (PhD thesis “*The structure of mineral-electrolyte interfaces*”, Radboud University Nijmegen), was presented a certificate of honorable mention. The third nominated candidate, Hans Hendrikse (PhD thesis “*On the conversion of nanocomposite architectures*”, AMOLF), could not attend the symposium and his certificate has been handed over later on. After the award ceremony, Ricardo closed the symposium with his lecture, presenting the results of his award winning PhD research.



**Sander Brugman** (Radboud University Nijmegen)



**Ricardo Cunha** (Institute of Energy and Environmental Technology, Duisburg, Germany) was handed over the KNCV Piet Bennema Crystal Growth Award 2021 by **Rob Geertman** (left)

The DACG symposium was attended by 45 participants. On behalf of the DACG board, we would like to acknowledge Wim Noorduin and Marloes Bistervels and their supporting staff Erny Lammers, Teresa van der Linden and Puck Beekman, for organizing this successful symposium and for hosting the DACG community at AMOLF.

*Antoine van der Heijden*