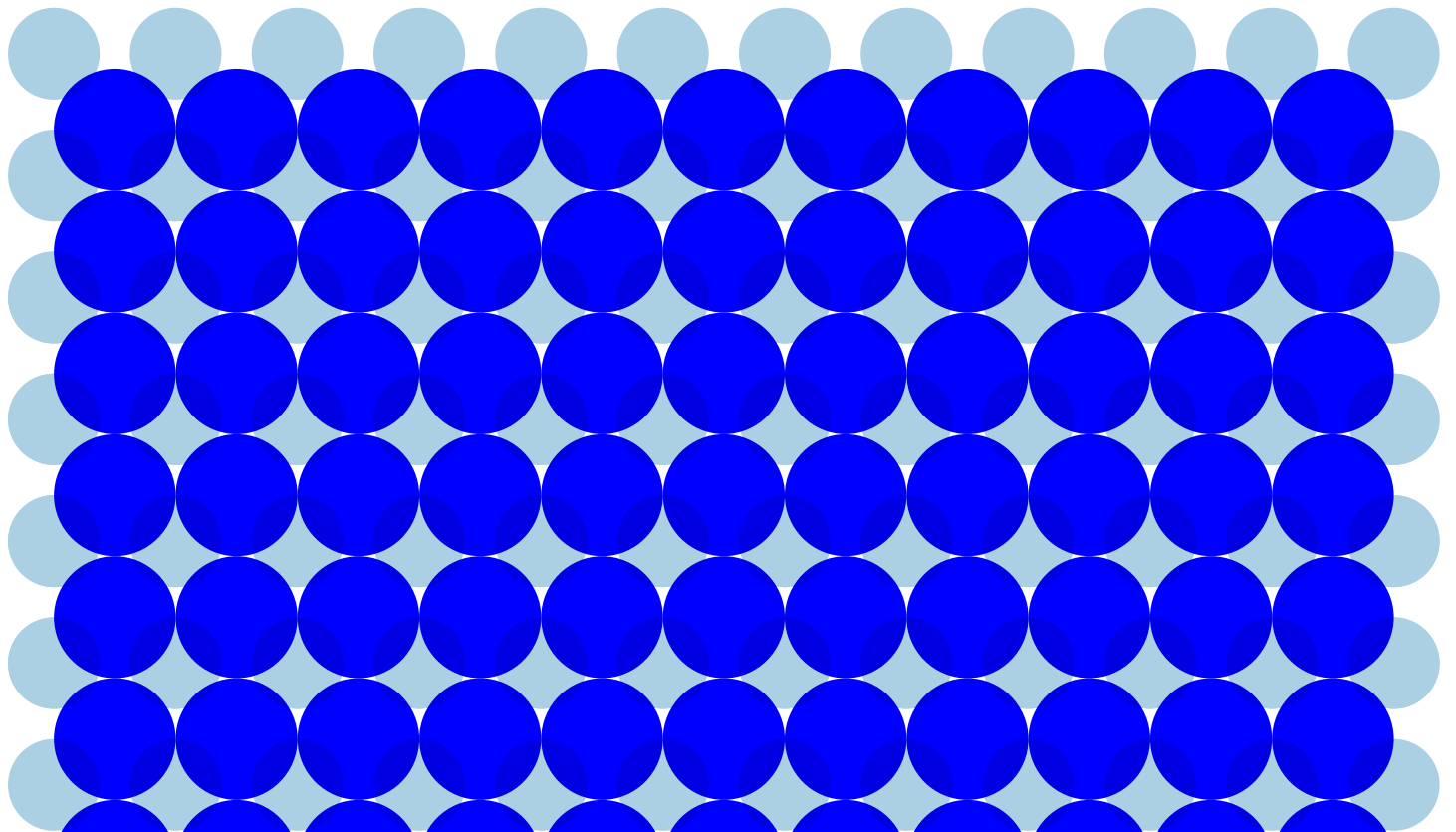


What's cooking for Christmas in 2023?!

Dr. Leonardo Kleebauer, Dr. Marie Hoffmann

This year, in April, we launched our monthly white papers – what a ride! As Christmas is approaching, it is now time to reflect and think about what we can put on the table for this celebration.



What's cooking for Christmas in 2023?!

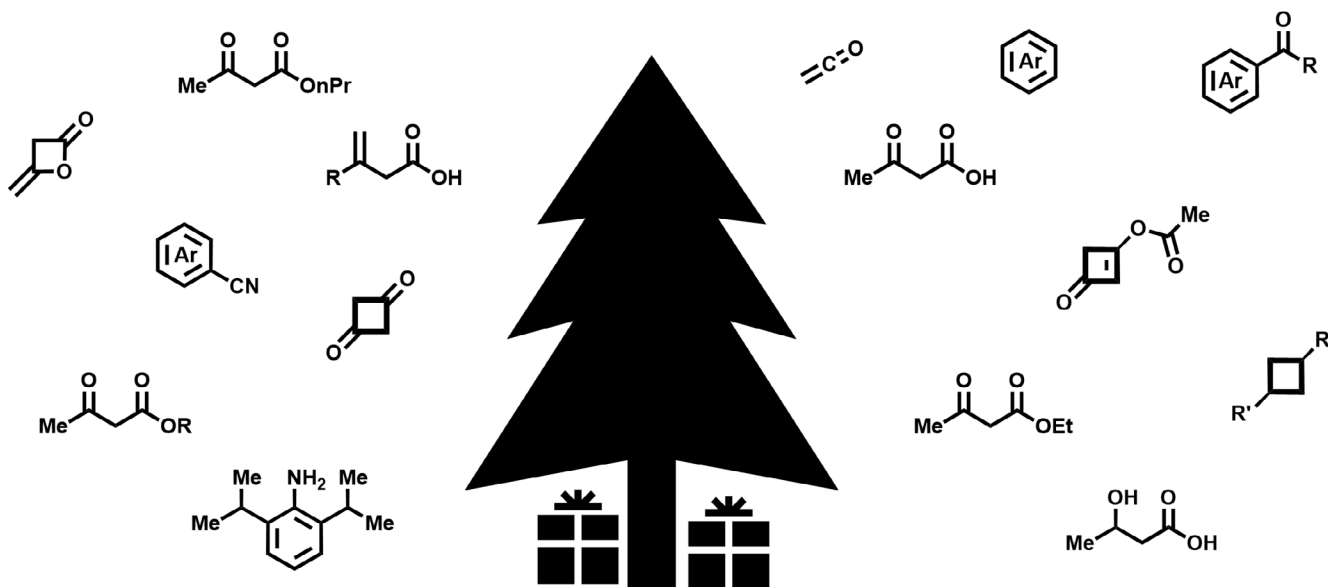
Since you're reading our monthly publication, we assume you share the passion of our chemists! While chemistry might not be the typical topic for a festive family dinner, for those driven by passion, it's a delightful one. As we celebrate the close of this year, let's reminisce about the highlights from our monthly publications and ensure some good discussions around the turkey.

In 2023, the Arxada CDMO group treated readers to eight white papers, delving into diverse topics, from chemical synthesis to supply chain dynamics and sustainability – perhaps sustainability in the supply chain is on the horizon!

Facing the challenges in the chemical industry head-on, Arxada is always looking for innovative solutions to support its customers. From addressing the scarcity of cyclobutane derivatives at the kilogram scale to championing sustainable-

processes across chemical transformations, each month's contribution is crafted to bridge gaps in your chemical synthesis endeavors, intensify processes for eco-efficiency, and contribute to a greener future.

These advancements underscore not just Arxada's commitment to scientific excellence but, more importantly, their impact on you. By fostering sustainability, reducing environmental footprints, and reshaping chemical practices, Arxada is your partner in making strides in your projects. Whether it's catalysis, synthesis, or innovative technology, Arxada's publications are finely tuned to support your unique journey and address the specific challenges you face in your daily endeavors. Going back to our Christmas dinner, those white papers might show some nice potential to kick-start passionate discussions!



How can bridging the gap to mid-scale availability impact your research or development?

April 2023: Bridging the Cyclobutane Gap

Arxada addresses the challenge of accessing cyclobutane derivatives at the kilogram scale. Leveraging its ketene/diketene network, Arxada traps triketene, creating a stable cyclobutane building block. The dicyclohexylammonium 3-oxocyclobut-1-en-1-olate emerges, offering a bridge from lab to production.

How can sustainable practices in chemical manufacturing contribute to broader environmental goals?

May 2023: Sustainable 2,6-Disopropylaniline Production

Arxada's net-zero vision extends to 2,6-disopropylaniline production. Through process intensification and smart downstream processing, Arxada cuts energy consumption by 35%, significantly lowering the carbon footprint. Sustainability takes center stage in Arxada's commitment to a greener chemical industry.

How does your net vision align with developing processes that minimize environmental impact?

June 2023: Greening Grignard Reactions

Arxada transforms the Grignard reaction, removing copper catalysts and using carboxylic acid anhydrides. The result: a sustainable, copper-free process with high selectivity, reducing ecological impact and waste. Arxada's commitment to green chemistry shines through, aligning with a net-zero vision.

How can unlocking versatile moieties contribute to efficient chemical transformations?

July 2023: A Green Approach to Pyridine Synthesis

Arxada delves into the realm of acetoacetates, emphasizing their significance in 1,3-substitution patterns. Diketene, produced on-site from acetic acid, emerges as a key to unlocking diverse acetoacetate derivatives. Arxada's expertise positions it as a leader, offering a broad portfolio through backward integration.

How might a collaborative approach reshape your supply chain resilience and redefine your product launch strategies?

August 2023: Unlocking Supply Chain Resilience

Arxada addresses the escalating challenges of supply chain disruptions by championing backward integration strategies. In the volatile landscape of the chemical industry, Arxada's backward-integrated Visp site becomes a fortress against disruptions, with key starting materials produced on-site.

How can acetaldehyde production expertise reshape CDMO collaborations and spark new possibilities in chemical synthesis?

September 2023: Unleashing the Potential of Acetaldehyde

Arxada explores the vast potential of acetaldehyde, one of the smallest aldehydes, that could become a strategic asset in selecting a CDMO partner. With a focus on safe production and handling, Arxada utilizes its backward-integrated Visp site to offer not just acetaldehyde but a gateway to diverse derivatives and applications.

How can you give a modern touch to an old reaction?

October 2023: Revamping Aromatic Nitrile Synthesis

Arxada leverages the Friedel-Crafts direct cyanogenation process, a one-step synthesis for aromatic nitriles, leveraging backward integration for the critical reagents. With a rich portfolio of versatile derivatives, Arxada's expertise reshapes the accessibility of these crucial compounds, driving innovation in pharmaceutical and agricultural industries.

How can combining Grignard with diketene redefine synthetic approaches?

November 2023: Synthesis through Grignard-Diketene Synergy

Arxada's expertise in handling both these reactive species, coupled with backward integration for diketene production, positions it as a leading collaborator for innovative and scalable chemical transformations. Explore the potential of this unique synergy for your chemical synthesis endeavors.

As we enter the holiday season, let's reflect on the transformative power of chemistry and envision a future where scientific breakthroughs pave the way for a cleaner and more sustainable world. We appreciate your ongoing support and look forward to a new year filled with innovative discoveries and collaborative efforts toward a shared vision of a better, greener future. Wishing you a joyous and sustainable holiday season!

Our team will now take a break to celebrate this end of the year, and rest before coming back for another season of white papers, starting in February 2024. If there is a specific topic you wish to discuss or see popping up in our articles, we would love to hear from you.

See you next year!

Acknowledgments

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