

Our click chemistry products and the Nobel Prize

Today the Nobel Prize for Chemistry was awarded to Carolyn R. Bertozzi, Morten Meldal and K. Barry Sharpless for the development of click chemistry and bioorthogonal chemistry.

The Royal Swedish Academy of Sciences writes "*The Nobel Prize in Chemistry 2022 is about making difficult processes easier. Barry Sharpless and Morten Meldal have laid the foundation for a functional form of chemistry – click chemistry – in which molecular building blocks snap together quickly and efficiently. Carolyn Bertozzi has taken click chemistry to a new dimension and started utilising it in living organisms.*"

Click chemistry has had a profound impact on materials science, life sciences, diagnostics, and pharmaceutical development, allowing additional layers of complexity to be realized using straightforward chemical reactions.

Polymer Factory's CTO Prof. Michael Malkoch has co-authored several publications with two-time Nobel laureate K. Barry Sharpless, focusing on accelerating dendrimer synthesis using click chemistry methodology and production of functional multilayers using layer-by-layer deposition.

While the advent of click chemistry has triggered huge advancements in the last two decades, Polymer Factory's dendritic products offer further advantages through the introduction of dendritic architectures. One example is using our orthogonal dendrons equipped with multiple click chemistry groups that can be "clicked" to fluorescent tags, and used to label biomolecules such as antibodies, allowing enhanced signal and detection of these low concentration biomolecules in novel assays.

Polymer Factory has a wide library of dendritic materials that are designed for simple modification using click chemistry, with over 50 unique products with click functionality:

- [Dendrons with click chemistry focal point](#)
- [Dendrons with click chemistry end groups](#)
- [Dendrimers for click chemistry](#)
- [BowtieD® dendrimers for click chemistry](#)

Our aim is for our customers to have easy access to highly functional materials that can be produced by efficient and simple methods, building on the concepts set out and established by today's prize winners.

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Polymer Factory (publ) is a leading global provider and producer of dendritic materials, with customers ranging from Big Pharma, MedTech and BioTech companies, to research-intensive institutes and academic research groups. The Company's dendritic materials act as smart delivery systems that enhance the effects of the substances they carry, e.g., a vaccine or an anticancer drug. They have also shown great promise in diagnostics, tissue engineering and in the development of vaccines. In addition, Polymer Factory has used the Company's vast knowledge and expertise to develop a patented calibration technology, named SpheriCal®, designed for Mass Spectrometry instruments. The Company's dendritic nanotechnologies have the potential to accelerate innovation in technologically demanding sectors, such as MedTech and BioTech. Learn more at www.polymerfactory.com.