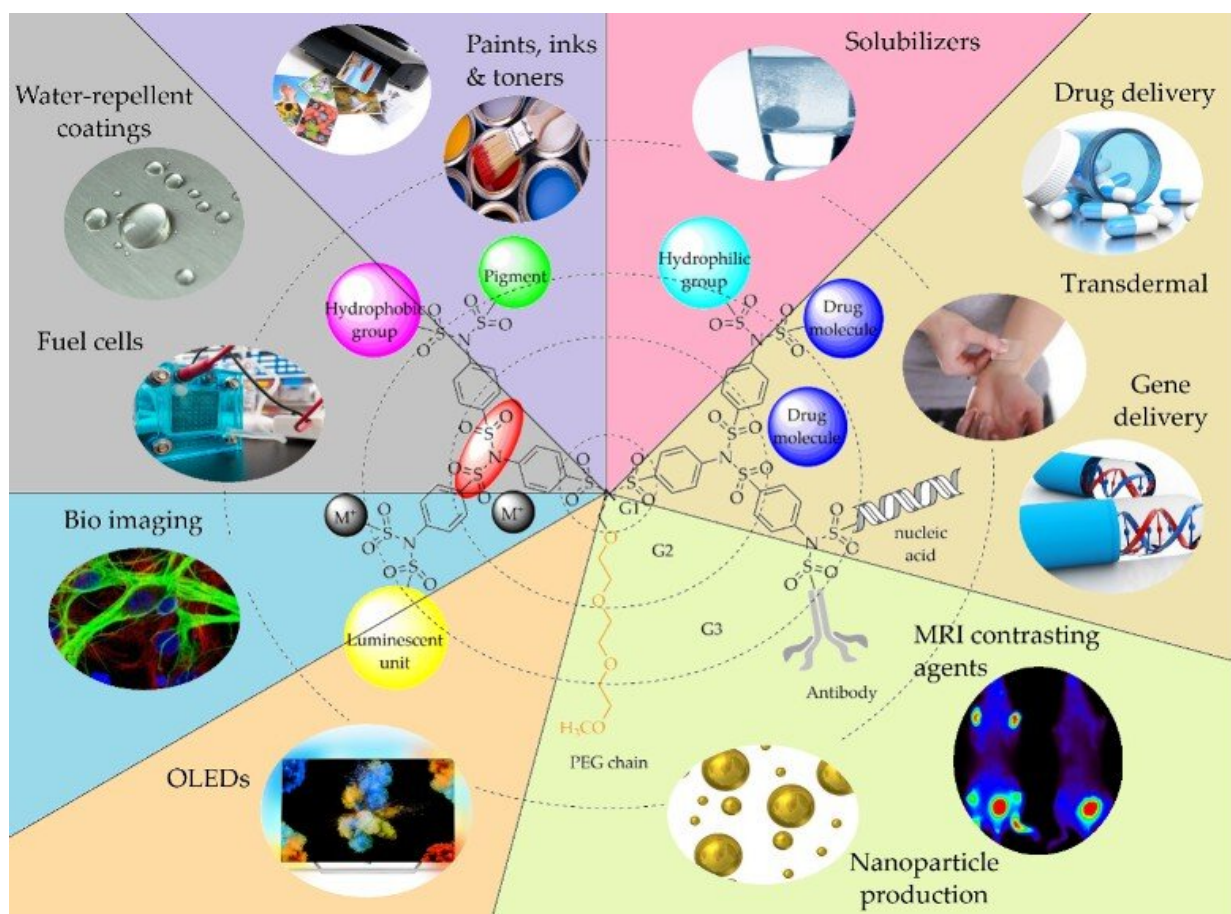


Scientists publish a complete overview of sulfonimide dendrimers

December 29 2020



Credit: Skolkovo Institute of Science and Technology

A research team from the Skoltech Center for Design, Manufacturing and Materials (CDMM) has prepared a comprehensive overview of

research on a family of sulfonimide dendrimers that holds promise for optics, photonics, and surface functionalization of materials.

The paper, titled "Sulfonimide-Based Dendrimers: Progress in Synthesis, Characterization, and Potential Applications," was published in the *Polymers* journal.

There are over 50 dendrimer families, of which some are well studied and amply described in the literature. Some dendrimers are already marketed under various brand names and used in [medical applications](#), while others, such as sulfonimide dendrimers, show great potential for further research and application. Sulfonimide dendrimers are chemically stable, crystalline, and non-toxic, and have a high melting point (120-250 °C) and a high glass transition temperature (135-162 °C). Besides this, they are biologically compatible with the human body, which makes them promising drug carriers and contrast agents. Their most remarkable advantage is that their desired properties are easily attained by making the right design and attaching various functional chemical groups onto a dendrimer's surface. Thanks to their valuable properties and easy modification, dendrimers can be used in [organic synthesis](#), [materials science](#), and biomedical chemistry.

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More information: Julia V. Bondareva et al. Sulfonimide-Based Dendrimers: Progress in Synthesis, Characterization, and Potential Applications, *Polymers* (2020). [DOI: 10.3390/polym12122987](https://doi.org/10.3390/polym12122987)

Provided by Skolkovo Institute of Science and Technology

Citation: Scientists publish a complete overview of sulfonimide dendrimers (2020, December 29) retrieved 31 January 2025 from <https://phys.org/news/2020-12-scientists-publish-overview-sulfonimide-dendrimers.html>

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