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Project with Esteban Mejía receives "Science and Innovation Prize, Technology and Progress Category" from the University of Iceland

The project "Sulfur rich polymers as adhesives in solar battery manufacturing" with the participation of Dr. habil. Esteban Mejía was awarded the "Science and Innovation Prize" of the University of Iceland in the category "Technology and Progress". The prize is endowed with 1.5 million ISK (approx. 10,800 €).

It is a cooperation between the University of Iceland and other Icelandic and international institutions, including the Leibniz Institute for Catalysis.



Dr. habil. Esteban Mejía, Forschungsgruppenleiter "Polymerchemie & Katalyse"

The project is about developing a new adhesive that could improve the energy performance of solar batteries by up to 30%. " Energy performance depends to a significant degree on the refractive index of the adhesive used to glue together parts of the battery. The current adhesive on the market has a refractive index of up to 1.4, but this new adhesive has a refractive index of 1.8. The maximum feasible refractive index is 2.0."

The team is currently in the process of applying for a patent for the invention. Discussions are already underway with interested companies on how to make this technology usable.

In its statement, the jury emphasized the practical nature of this project and the enormous benefit it brings to society: the profit from an improvement in sustainable energy efficiency. In

addition, the project is an excellent example of cooperation between the University of Iceland and other Icelandic and international institutions.

(Behind the project are Sigríður Suman, professor of chemistry, Dmitrii Razinkov, PhD student in the same subject, and Hafdís Inga Ingvarsdóttir, who earned her master's degree in chemistry in 2018. The project was carried out in collaboration with Esteban Mejía from the Leibniz Institute for Catalysis in Rostock, Germany, and Gissur Örlygsson from IceTec).

The competition for the University of Iceland Science and Innovation Awards has been held annually for over 20 years under different names. This year, there were 27 entries. A jury of experts from inside and outside the university reviewed the entries and judged them on ingenuity and originality, execution, societal impact (e.g., in relation to the UN Sustainable Development Goals), and whether the project aligned with the university's strategy and mission.

Prizes were awarded for the best ideas in four categories: Health and Well-Being, Technology and Progress, Society, and the Motivation Award. An overall winner was also determined from the winners of the above categories.

Original: [UI Science and Innovation Prize awarded to preventing infection in artificial joints | University of Iceland \(hi.is\)](#)

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