

FRAUNHOFER INSTITUTE FOR PHYSICAL MEASUREMENT TECHNIQUES IPM

PRESS RELEASE

PRESS RELEASE

November 19, 2024 || page 1 | 2

"For Women in Science"-Award for Dr. Chiara Lindner

Dr. Chiara Lindner, postdoc and employee of Fraunhofer IPM for many years, was honored with the "For Women in Science" Award on November 12, 2024. The award, endowed with 25,000 €, promotes four successful young female scientists from Germany who have distinguished themselves through their work in the experimental natural sciences.

In her research, Chiara Lindner is working to improve infrared spectroscopy using quantum technological methods. The quantum Fourier transform spectrometer she developed can be used to quickly and accurately detect and analyze various substances. This is achieved by combining Fourier transform analysis with a quantum effect: correlated photon pairs enable absorption measurements in the infrared with visible light. The advantage: only one millionth of the light intensity of standard spectrometers is required here. Lindner developed this novel spectrometer during her doctorate at Fraunhofer IPM, which she completed in 2022. She has already been honored for her work with the "Quantum Futur Award" from the German Federal Ministry of Education and Research and received the "Hugo Geiger Prize for Young Scientists" in 2023.

During her postdoc, she is now working on further improving the quantum spectrometer. Current research is aimed at combining spectroscopy with quantum imaging to ultimately enable hyperspectral imaging in the mid-infrared (MIR). This will open up new applications in medicine and materials research.

About the "For Women in Science" Award

The "For Women in Science" award is given annually to four outstanding young female scientists in the STEM fields. In Germany, the award is sponsored by the German Commission for UNESCO, L'Oréal Germany and the German Humboldt Network.

L'Oréal and UNESCO have been working together since 1998 to make women in science more visible and to promote equal opportunities. More than 4,400 female scientists worldwide have already been honored.

You can find L'Oréal's press release <u>here</u> (in German). Further information and videos of the award winners can be found on the <u>L'Oréal</u> website.



FRAUNHOFER INSTITUTE FOR PHYSICAL MEASUREMENT TECHNIQUES IPM

PRESS RELEASE

November 19, 2024 || page 2 | 2



Dr. Chiara Lindner (3rd from the right) receives a 25,000 € research award at the "For Women in Science" award ceremony in Berlin. © Thomas Rafalzyk/L'ORÉAL Deutschland GmbH

The **Fraunhofer-Gesellschaft**, based in Germany, is a leading applied research organization. It plays a crucial role in the innovation process by prioritizing research in key future technologies and transferring its research findings to industry in order to strengthen Germany as a hub of industrial activity as well as for the benefit of society. Founded in 1949, the Fraunhofer-Gesellschaft currently operates 76 institutes and research units throughout Germany. Its nearly 32,000 employees, predominantly scientists and engineers, work with an annual business volume of 3.4 billion euros; 3.0 billion euros of this stems from contract research.

Other contacts

Dr. Chiara Lindner | Nonlinear Optics and Quantum Sensing | Phone +49 761 8857-248 | chiara.lindner @ipm.fraunhofer.de Fraunhofer Institute for Physical Measurement Techniques IPM, Freiburg | www.ipm.fraunhofer.de/en