

News Release

July 4, 2025
Proterial, Ltd.

Proterial, Ltd. Wins the 63rd JSPM Award for Distinguished Achievements in Development

Takeshi Shimada of Proterial, Ltd. has won the 63rd JSPM Award for Distinguished Achievements in Development hosted by the Japan Society of Powder and Powder Metallurgy (JSPM). The Technical Achievement Award is presented to those who have made outstanding achievements in advancing and developing powder metallurgy technologies and have publicly announced these achievements, and who have conducted excellent technical research over the years. This time marked the recognition and awarding of achievements made in ceramics used in electronic materials, mainly dielectrics (electroceramics).



Takeshi Shimada (left) and Yukiko Ozaki, President of the Japan Society of Powder and Powder Metallurgy (at the Awards ceremony)

1. Award winner

Takeshi Shimada, Digital Development Department, Research and Development Headquarters, Proterial, Ltd.

2. Achievements awarded

Development of electroceramics, mainly on dielectric materials

3. Summary of achievements

This study clarified the mechanism of dielectric loss in dielectric materials for communications used in high frequency ranges, including the GHz band, by focusing on the interaction between acoustic phonons* and electromagnetic waves, with success achieved in developing a material with extremely low dielectric loss. This material has been applied to the mobile communications field, such as satellite

communications and mobile phone base stations, greatly contributing to improving the performance of communications infrastructure.

Furthermore, the knowledge gained from this study has also been applied to semiconductor ceramics and high thermal conductive materials, and has been highly evaluated for its application to a wide range of fields.

Japan Society of Powder and Powder Metallurgy URL: <https://www.jspm.or.jp/en>

Media Inquiries: Corporate Communications Dept.

https://www.cntct.proterial.com/contact/publish/inquiry_eng?g=01&c=001-01

Terminology

* Acoustic phonon

Called a quasiparticle, where the vibrations of crystals (lattice vibrations) transmitting sound and heat are treated as if they were a single particle.

■About PROTERIAL

PROTERIAL

“Proterial” reflects the essence of our corporate philosophy, which consists of three elements: Mission: “Make the best quality available to everyone;” Vision: “Leading sustainability by high performance;” and Values: “Unflinching integrity” and “United by respect.” It combines “**pro-**” with the word “**material.**”

“Pro-” represents our “three pros”:

- **Professional — work that exceeds expectations**
- **Progressive — a spirit that keeps challenging**
- **Proactive —an enterprising attitude**

“Material” refers to the high-performance materials that our original technologies produce and underpinned by the three pros. With our focus on solving customer issues and bringing new levels of value, we promise to contribute to the realization of a sustainable society through the products and services that embody our philosophy.

■Proterial, Ltd. — Company Overview

Established: April 1956

Head office: Toyosu Prime Square, 5-6-36 Toyosu, Koto-ku, Tokyo 135-0061, Japan

Capital : 310 million yen (as of March 31, 2024)

Representative : Sean M. Stack

Representative Director, Chairman, President and Chief Executive Officer (CEO)

Sales revenue: 1,033.2 billion yen (Term ended March 2024)

History: 1910: Founded as Tobata Foundry Co.

1937: Merged with Hitachi, Ltd.

1956: Established separately as Hitachi Metals Industries, Ltd.

2023: Company separated from the Hitachi Group, and renamed from Hitachi Metals, Ltd. to Proterial, Ltd.

Proterial is a participant of the United Nations Global Compact and adheres to its principles-based approach to responsible business. In January 2025, Proterial received a Silver rating in the EcoVadis Sustainability Assessment.