

World Scope

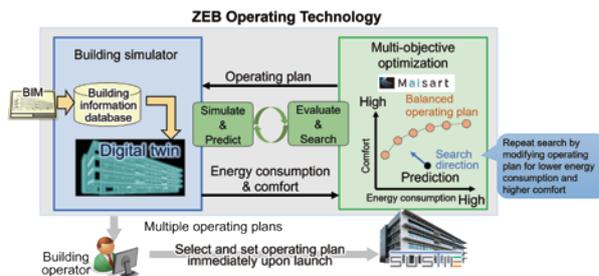
Mitsubishi Monitor introduces some of the latest news about Mitsubishi companies as they play an active role on the world stage.



Mitsubishi Electric

SUSTIE Test Facility Achieves Government ZEB Targets

Mitsubishi Electric's SUSTIE® net zero-energy building (ZEB) test facility in Kamakura, Kanagawa Prefecture, reduced its net energy consumption to less than 0% in its first full year of operation, meaning that it created more energy than it consumed. The facility deployed the company's pre-planning ZEB operating technology to optimize operations, resulting in a 115% net reduction in energy use compared to standard primary energy consumption in the year since it was commissioned in 2020. The technology simulated the use of building equipment, such as air conditioning and lighting, including temperature and brightness, to predict energy consumption and comfort levels for a one-year period. Furthermore, used together with multi-objective optimization technology using Maisart®, it can automatically generate building operating plans that minimize energy consumption while maximizing human comfort.



The pre-planning ZEB operating technology deployed at SUSTIE®. The technology simulates energy consumption and comfort levels for a one-year period.



SUSTIE® exterior. Equipped with solar panels only on the rooftop and pent roofs, the test facility shows that ZEB can be deployed even in urban areas with restricted site areas.

<https://www.MitsubishiElectric.com/sites/news/2021/pdf/1115.pdf>



For more information about the Mitsubishi companies, see "mitsubishi.com"

■ <https://www.mitsubishi.com/en/>



The *Mitsubishi Monitor* is published by the Mitsubishi Public Affairs Committee

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2022 March

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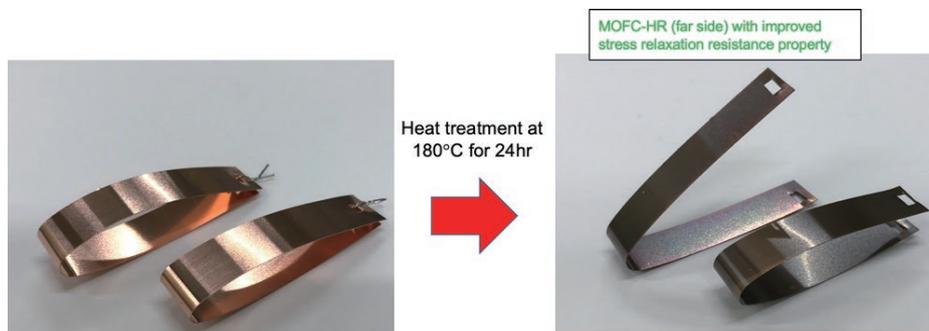
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Mitsubishi Materials

Mitsubishi Materials Redefines Oxygen-Free Copper with the Development of MOFC-HR

Mitsubishi Materials (MMC) has developed MOFC-HR (Mitsubishi Oxygen-Free Copper–Heat Resistance), an entirely new material that combines the conductive properties of pure copper and the strength and heat resistance of copper alloys. MOFC-HR retains the highest electrical and thermal conductivity of conventional oxygen-free copper (OFC), but boasts a 25% increase in strength with minimal degradation up to 400°C, 150°C higher than OFC. In addition, spring properties never seen with conventional OFC are now available. MOFC-HR is attracting attention in EV (electric-vehicle) and next-generation energy applications where materials that can carry high currents and dissipate heat are required. Visit the official press release for details including the contact for inquiries.



Heat resistance comparison between MOFC-HR (top strip) and conventional oxygen-free copper (bottom strip). MOFC-HR exhibits minimal degradation in properties even under severe thermal environments.

<https://www.mmc.co.jp/corporate/en/news/2021/news20211001a.html>



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