

Copper oxide coating technology from Japan against nosocomial infections

Summary

Profile type	Company's country	POD reference
Technology offer	Japan	TOJP20250303003
Profile status	Type of partnership	Targeted countries
PUBLISHED	Commercial agreement with technical assistance	• World
Contact Person	Term of validity	Last update
Enrico FRANZIN	3 Mar 2025 3 Mar 2026	3 Mar 2025

General Information

Short summary

A Japanese company is looking EU partners interested to its copper oxide coating technology aimed at defending from nosocomial infections. Strong of a 30-year long development, the coating can be applied to a wide range of materials. The company is looking for a commercial agreement with technical assistance. The company has already achieved technical partnerships with local companies and is now offering its technology to the EU.

Full description

A Japanese company has recently launched a technology that can form a strong copper oxide (CuO) film applicable to a wide range of materials. They offer their knowledge and know-how on manufacturing the sol solution under a commercial agreement with technical assistance.

The CuO chemical the company utilizes is officially certified as harmless, and has antibacterial and antiviral functions. It can be employed as a coating solution to deter nosocomial infection and fomite transmissions. The Japanese company wishes to share their secret know-how on the production of this coating to help a potential partner take precaution against nosocomial infections, as well as for unexpected medical events.

The company's technology and know-how are backed by knowledge and experience that have been cultivated through trials over nearly 30 years. They offer to share their established sol solution with potential partners as a best

practice to quickly allow for its implementation.

The company has already achieved technical partnerships with two Japanese and Chinese manufacturers that recently started the production of their CuO containing sol solution to be used indoors in various buildings and equipment and so on.

The Japanese company hopes to establish a long-term agreement with a potential partner in the EU to help hospitals, medical institutions, and/or various public space to maintain a high level of sanitation. In a potential partnership, the company is mainly aiming to share their knowledge on manufacturing the sol solution, but is also open to discuss possible sale of the product.

Advantages and innovations

The sol solution that the Japanese company recently launched can form a strong copper oxide (CuO) film onto various surfaces of materials.

The chemical CuO has been certified by public organizations such as the US EPA and numerous studies to have high antibacterial and antiviral properties, stimulating interest to utilize it to prevent nosocomial infection and fomite transmissions. However, previous research to develop it as a coating solution showed challenges in terms of costs and ease of use.

The Japanese company's technology enables the manufacturing of an inexpensive and intuitive sol solution that creates a firm and transparent coating film for any kind of material. The film has a durability of 10 to 20 years. The company has extensive experience with providing photocatalytic sol solutions containing peroxotitanic acid (PTA), which is an inorganic material with strong adhesive properties. The technology for fixing CuO sol solution films to a base material is an advanced technology developed independently by combining PTA and CuO, and is an extension of the company's existing technologies. In addition, the combination of PTA and CuO films is completely transparent, colourless, odourless, and harmless, and has the ability to adhere strongly to a wide range of substances.

This technology is expected to be of help in preventing nosocomial infections and fomite transmissions in medical facilities and so on. Moreover, a trial for application of the copper sol solution into underwear is currently ongoing in China.

Technical specification or expertise sought

Stage of development

Already on the market

IPR Status

Secret know-how

IPR Notes

Sustainable Development goals

• **Goal 3: Good Health and Well-being**

IPR Notes

Partner Sought

Expected role of the partner

The ideal partner would be a medical device manufacturer or a company that does business in antimicrobial coatings, but the company is open to partners from a variety of industries. They would also highly welcome a potential partner who has business channels in the medical sector.

Companies that can propose this technology to a large number of medical-related companies as a countermeasure to nosocomial infections are also welcome.

Type of partnership

Commercial agreement with technical assistance

Type and size of the partner

- **SME 50 - 249**
- **SME 11-49**
- **Big company**
- **SME <=10**

Dissemination

Technology keywords

- **02002002 - Coatings**

Market keywords

- **05007007 - Other medical/health related (not elsewhere classified)**

Targeted countries

- **World**

Sector groups involved