

The network partners

The Network NanoSilber was founded in 2011 and comprises partners from industry and science. Each partner contributes unique competences from different areas, which makes the network highly interdisciplinary and offers versatile synergy effects and optimal opportunities for cooperation.

From 2011-2014, the network was partially funded by the German Federal Ministry for Economic Affairs and Energy (BMWi). Since 2015, it is a self-financed open innovation network for companies and institutes. The network is managed by the Nanoinitiative Bayern GmbH.



Network NanoSilber

International point of contact and solution provider for nano silver materials:

- Bundled expertise (e.g. on nano silver materials, dispersing techniques, process-related analytics, effectiveness tests, water systems/ hygiene, ...)
- Specialist advice on regulations, internationalisation, test standards, textiles, microbiology, funding...
- Joint public relations and targeted forwarding of external cooperation requests
- Implementation and management of tailor-made cooperation projects
- Organisation of events, status meetings, workshops and seminars (e.g. the network day NanoSilver)
- Direct contact to authorities and project funding agencies

Join the network!

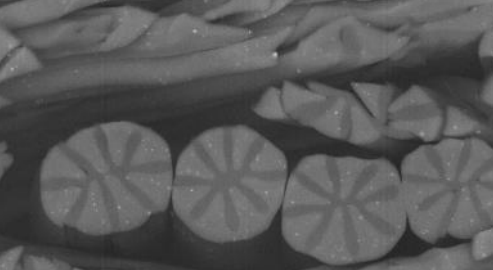
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Responsible development of nanosilver products



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Safe and responsible development



Analysis of public places with increased risk of infection



Medical and electronic applications

Silver and Nanosilver

Silver is outstanding by its unique properties, including the highest electrical and thermal conductivity of all elements as well as naturally antimicrobial effects.

The use of silver opens up high performance applications ranging from printed electronics, to flexible displays to the antimicrobial equipment of different materials like wound dressings, textiles and wall panels.

Technical potential of nanosilver

Compared to bulk silver, the use of nanosilver offers various advantages. The nano scale increases the surface per volume unit and thus leads to increased chemical, biological and catalytic activity. Nanosilver thus requires fewer quantities to achieve the same effect as for the bulk material, allowing a reduction in total silver loading. For example, embedded into composite materials, even small amounts of silver can enable transparent conductive films.

Economic potential of nanosilver

The nanosilver market size surpassed USD 2 Billion in 2020 and is forecasted to grow well to \$ 5.5 billion by 2027. This is because of an increasing demand for hygienic measures as a consequence of the corona crisis but also because of growing markets like printed electronics.

Aims of the network

NanoSilber is a cooperation network promoting the open and objective discussion on the responsible development and use of silver and nanosilver products. Our focus is the unbiased examination of opportunities and risks throughout the product life cycle.

In addition to the development of innovative products, we therefore also coordinate R&D projects in order to address open questions concerning possible risks. With the interdisciplinary knowledge of the network, we aim to develop products that offer an additional benefit for the customer while ensuring high product safety at the same time.

Cooperation projects of the network:

- Environmental protection and safety in industrial handling of nanomaterials
- Conductive, transparent sol-gel coatings
- Practicability and benefits of antimicrobial textiles in healthcare settings
- Emergency rooms with antimicrobial equipment
- Antimicrobial properties of recooling systems

Are you interested in joining the network or are you looking for a solution to your specific questions?

We are pleased to meet you!

Innovation by networking

The network consists of strong partners, working in different industries and having outstanding expertise in various fields. The activities of the network include the open and interdisciplinary exchange among the partners as well as with external stakeholders.

The partners are supported by a professional network management taking care of administrative tasks as well as providing joint public relations. Further it professionally prepares and presents information about current findings and achievements to a broad public. Thereby, the network contributes significantly to an objective discussion about the opportunities and risks of nanosilver.

Core competences of the network

- Synthesis and production of (nano)silver
- Processing of (nano)silver in different materials, composites and surfaces, including textiles
- Coating processes for metals, glasses, plastics and other materials
- Analysis of the antimicrobial effectiveness
- Experts in regulations, internationalisation, microbiology, water systems, funding...
- Treatment plants for water storage systems