managed by Cluster Nanotechnology

nanoInk NETZWERK

Network partners

The network nanoInk comprises small to medium-sized enterprises, large enterprises and research institutions along the value chain of industrial inkjet printing. Taking advantage of synergies the network partners join to develop innovative special inks and new process technologies. nanoInk unites various expert fields and offers strong partners with outstanding know-how in the areas of raw materials, dispersion techniques, ink formulation, printing systems and process-integrated analytics.

The network was founded in 2014 and since has been managed by the Nanoinitiative Bayern GmbH.

EZD Das Dispergier-Zentrum
GEB Druckfarben Printing Inks Wahl GmbH
SKZ powered by Das Kunststoff-Zentrum
Technische Hochschule Nürnberg Georg Simon Ohm
INM
Colloid Metrix
PTS FIBRE based solutions
Leibinger
prometho
NETZSCH
KRÜSS
Keeling & Walker World Leader in Tin Oxide
Cluster Nanotechnology

01/2020

Network nanoInk

- **An international point of contact and solution provider for special inks, industrial inkjet printing systems and related process technologies**
- Bundled and complemantary competencies
- Easy entry into innovative technologies
- Coordinated exchange among stakeholders along the value chain of inkjet printing
- Implementation and management of tailor-made cooperation projects
- Organisation of professional events, status meetings, workshops and seminars
- Joint public relations
- Advice and further information

Become a partner!

Network nanoInk / Nanoinitiative Bayern GmbH
Dr Justus Hermannsdörfer
Josef-Martin-Weg 52
D - 97074 Würzburg / Germany
Phone: +49 931 31 - 89377
Fax: +49 931 31 - 80569
E-Mail: info@nanoink.de
Internet: www.nanoink.de

Special inks and industrial inkjet printing systems

www.nanoink.de

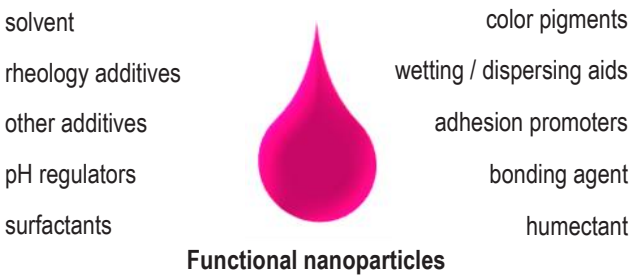
Raw materials and functionalisation

Dispersing techniques and process analytics

Ink formulation and printing systems

Aims of the Network

nanoInk is an open cooperation network offering enterprises and research institutes a platform for inkjet-related topics. The focus of the interdisciplinary network is the development of nano and special inks as well as the further development of process technologies and printing systems. The network management coordinates joint cooperation projects and acts as an international point of contact for business inquiries.



Functional nanoparticles

Applications

In decorative printing, the use of special inks offers great potential, for example in the development of innovative color impressions. Growing markets include photo, books and label printing, as well as contactless printing on textiles, tiles, glass, floor panels, metal and other building materials.

Smart Inks are formulations made of conductive, magnetic or fluorescent nanoparticles and are used for counterfeit protection, codes and markings in the packaging industry as well as in functional textiles and polymers.

Printed electronics is one of the key technologies for the future development of electronic applications. Based on carbon nanotubes (CNTs) and silver nanoparticles, conductive inks are used for the design of electronic devices like antennas (RFIDs), printed circuit boards, flexible displays or photovoltaic modules.

Core competences of the network

- Synthesising and functionalising nanomaterials for various applications
- Process technologies, dispersing techniques and process analytics
- Formulating inks for industrial applications
- Analysing particles, dispersions, pastes and inks
- Developing customised inkjet printing systems
- Labels, advertising and packaging printing and marking technologies
- Characterising printed structures

If you are interested in a cooperation with the network please do not hesitate to contact us.

We are pleased to meet you!

Special Inks

Many different components turn a drop of ink into a highly complex, technical structure, offering great potential for development of new applications.

Tailored to your applications / specifications the network nanoInk develops innovative special inks based on **functional nanoparticles**, such as nanosilver, nanocarbons, iron oxide and nanoclays, ITO.

Process Technologies

The production of nanoinks is a demanding, multi-step process. Of crucial importance is the **dispersion and stabilization of the nanoparticles**, e.g. to avoid reagglomeration problems.

The network offers a variety of mixing, dispersing and grinding processes. Also available are modern measuring techniques for the **characterization** of the dispersions and the printed products.

Printing Systems

Digital printing ideally serves the trend of **individualized** and **personalized** products in **small numbers**. Even complex 3d structures can be printed contactlessly and without the need for extra printing plates on various substrates.

The network pays particular attention to the mutual development of specialty inks and printhead technologies and keeps them in perfect alignment.