

NanoCarbon Annual Conference 2022

Presentations • Short Pitches • Posters • Exhibits

Program

June 21 and 22, 2022

Balthasar-Neumann-Saal, Würzburg

Cluster
Nanotechnology



— TUESDAY, JUNE 21 —

- 09:00 Registration and check-in
- 10:00 P. Grambow, Nanoinitiative Bayern GmbH, Germany
Opening remarks and short introduction of the Network NanoCarbon

SESSION 1: ANALYTICS

- 10:10 D. Lerche, LUM GmbH & D. Segets, Centre for Nanointegration Duisburg-Essen, Germany
Tandem presentation: **Key control characteristics (KCC) for carbon black materials for fuel cells and batteries: Hansen dispersibility parameters and strength of electrode coating**
- 10:50 C. Geers, NanoLockin GmbH, Switzerland
Active thermography for the analysis of graphene
- 11:10 P. Frederix, Nanosurf AG, Switzerland
AFM as tool to characterise graphene
- 11:30 A. Kondor, Surface Measurement Systems, UK
Development of advanced composites through surface characterisation of fibers and fillers by inverse gas chromatography
- 11:50 **Poster session / networking / lunch break**

SESSION 2: SHORT PITCHES

- 12:45 B. Münzing, Graphmatech AB, Sweden
Newly designed polymer and metal graphene composites
- 12:55 Ch. Bauer, Julius-Maximilians-Universität Würzburg, Germany
Energy storage with onion-like carbon
- 13:05 T. Schwarz, Ostbayerische Technische Hochschule Regensburg, Germany
Novel deposition techniques for carbon nanostructures
- 13:15 P. Grambow, Nanoinitiative Bayern GmbH, Germany
Network NanoGeoTherm - Nanotechnology for more efficiency in geothermal systems
- 13:25 S. Kuntz, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany
Binder free application of electrode materials for battery production using CNHs

- 13:35 A. Horoschenkoff, Hochschule München, Germany
Liner material for tension rod supported hydrogen pressure vessels

13:45 **Poster session / networking / coffee break**

SESSION 3: ENERGY STORAGE AND CONVERSION

- 14:15 P. Boulanger, NAWATechnologies, France
Thermal properties of vertically aligned carbon nanotubes, results and applications
- 14:35 Sh. Notley, Flexegraph, Australia
Graphene nanofluids for superior thermal management of batteries and electrical systems
- 14:55 A. Caidi, The hydrogen and fuel cell center (ZBT GmbH), Germany
Functionalisation of carbon black via ultrasonic treatment and its effect on the performance of a polymer electrolyte membrane fuel cell
- 15:15 J. Hoppe, Technische Hochschule Nürnberg Georg Simon Ohm, Germany
Pore volume and pore size distribution of carbon-doped titanate nanotubes
- 15:35 A. Mirhamed, Accurion GmbH, Germany
In-situ imaging ellipsometry measurements of multi-layer graphene as an electrode for rechargeable batteries
- 15:55 **Poster session / networking / coffee break**

SESSION 4: SAFETY AND REGULATION

- 16:15 M. Ata, Zeon Corp., Japan
Social and regulatory issue of nanotechnology
- 16:35 A. Rul, Nanocyl S.A., Belgium
Investing in nanomaterial regulatory compliance and safety: A multiwall carbon nanotubes example
- 16:50 R. Bieri, Stat Peel AG, Switzerland
CNT and Graphene exposure measurement in workplaces using Raman spectroscopy
- 17:10 **End of the first conference day**

EVENING EVENT — MIDSUMMER BOAT TRIP

- 18:45 Meeting point **Am Alten Kranen**
Kranenkai, Schiffstouristik Würzburg
(red and yellow ticketbooth)
- 19:00 **Boat trip with conference dinner (~ 3 hours)**

WEDNESDAY, JUNE 22

08:30 Poster session / coffee

SESSION 5: NANOCOMPOSITES

- 09:00 P. Pötschke, Leibniz-Institut für Polymerforschung Dresden e.V. (IPF), Germany
CNT based composites for strain sensing applications
- 09:20 M. Gnanaseelan, Forschungsinstitut für Leder und Kunststoffbahnen (FILK), Germany
Effect of strain on heating characteristics of silicone / CNT composites
- 09:40 N. Demarquette, École de Technologie Supérieure de Montréal, Canada
Stability of morphology and material properties of carbonaceous fillers nanocomposites during processing
- 10:00 B. Zanghelli, University of Natural Resources and Life Sciences, Austria
Enhanced functionalisation and dispersion methods for CFRP
- 10:20 Poster session / networking / coffee break

SESSION 6: APPLICATIONS

- 10:45 I. Kolaric, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Germany
Nanocarbon enhanced smart skins for human machine interaction
- 11:05 A. Riddick, Cabot Corporation, Switzerland
Enabling innovative applications with high performance carbon nanostructures
- 11:25 M. Sekiya, ZEON Corporation, Japan
Commercial applications of carbon nanotubes with a focus on Japan

SESSION 7: SUSTAINABILITY

- 11:45 M. Schwabl, BEST - Bioenergy and Sustainable Technologies GmbH, Austria
Sustainable nanocarbon – synthesis of CNTs and carbon black via CO₂ negative pathways

- 12:05 K. Hori, Nagoya University, Japan
CNT degradation by bacterial enzymes
- 12:25 Poster award
- 12:35 Get-together / lunch break / open end

NETWORK MEETING

- 14:00 Status meeting of the Network NanoCarbon
- 16:00 End of the event



POSTERS AND EXHIBITION

In addition to the lecture program there will be a poster award as well as an accompanying exhibition. Posters can be submitted until **May 30, 2022**, both online and by sending them to info@nanocarbon.net.

Manufacturers of materials and equipment have the opportunity to present their demonstrators and products in an **accompanying exhibition**. Please find further information at carbon2022.nano.bayern

PROFILE OF THE CONFERENCE

For the 7th time the Network NanoCarbon* will organise the Annual Conference. After taking the event online last year, we now wish to bring the nanocarbon community back together in person. During the conference, experts from industry and research come together to exchange their results and ideas using this open communication and networking platform. Join the talk about innovative and commercial activities in the field of carbon nanomaterials (e.g. CNTs, graphenes, nanodiamonds, nanohorns, carbon black). The Annual Conference also addresses industry delegates seeking new trends and partners for novel cooperations and projects. We would like to invite you to meet international nanocarbon specialists in Würzburg, Germany.

*In the open Network NanoCarbon international manufacturers of nanomaterials and equipment, users, institutes and universities work closely together to develop innovative nanocarbon products.



CONFERENCE VENUE

Balthasar-Neumann-Saal (LGA Landesgewerbeanstalt)

Dreikronenstraße 31
97082 Würzburg, Germany

Directions: <https://www.bns-wuerzburg.de/anfahrt-/parken>

CONFERENCE FEES — EARLY BIRD PRICES¹

Two-day conference with conference dinner and boat trip on June 21, 2022:

Industry delegates	455 €
Network members ² / institutes / authorities	270 €
Members of the Network NanoCarbon	225 €
Students	95 €
Students (without conference dinner)	55 €

(Notes: 1 Prices are subject to VAT. The fees include conference documents, coffee breaks, lunch breaks, refreshments and the conference dinner. For registrations after June 03, 2022 a surcharge of 20 % will be due. In case of withdrawal after June 06, 2022, cancellation fees of 50 % of the respective prices are due. 2 Networks NanoSilber, nanoInk, NanoAnalytik, Nano4eMob, NanoGeoTherm and Nanonetz Bayern e.V.)

REGISTRATION

To participate in the event, please **register online until June 14, 2022**. Further information as well as the registration form can be found at: carbon2022.nano.bayern

ORGANISATION / CONTACT

Nanoinitiative Bayern GmbH / Network NanoCarbon

www.nanoinitiative-bayern.de

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