

Research highlight

Bio-applicable nanosensors

Purified NIR sensors for the detection of neurotransmitters

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We offer purified (6,4)- and (6,5)-carbon nanotubes which fluoresce at the beginning of the NIR range. This allows detection with specialized NIR sensors as well as standard equipment available in any lab. Our nanotubes are modified with DNA and react highly sensitive to neurotransmitters. The development of sensors for other analytes or other nanotube types is available upon request.

Technology

- Tailored Nanosensors

System advantages

- Sensing in the first section of the tissue transparency window
- Detection with standard cameras (smart-phones) or specialized equipment possible

Customer Benefits

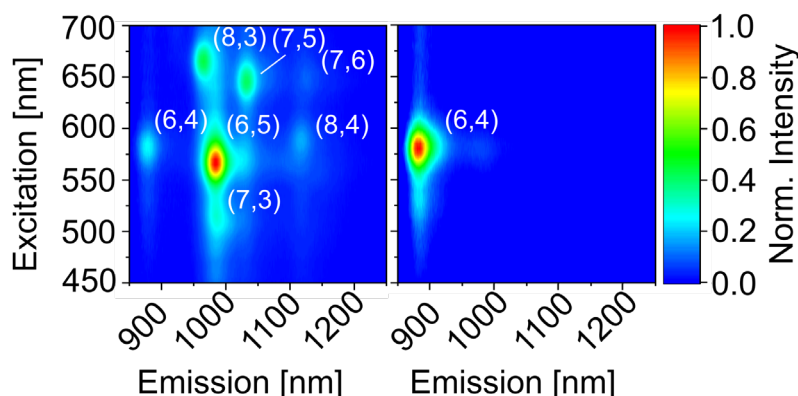
- Nanosensors tailored towards your application
- Imaging of sensors with specialized and standard equipment possible
- Purification increases:
 - Brightness by up to 1.7 x,
 - Sensitivity by up to 7.5x,
 - Allows for imaging applications < 50 ms.

Application Fields

- Diagnostics
- R&D



Image of purified (6,4)-SWCNTs (left) and fluorescence image of the SWCNTs in the NIR. © Fraunhofer IMS



Excitation-emission spectra of our nanosensors before and after purification.

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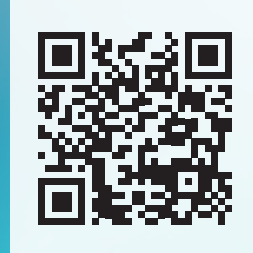
Contact

Business Unit Health
sales@ims.fraunhofer.de

Fraunhofer Institute for Microelectronic Circuits and Systems IMS
Finkenstraße 61
47057 Duisburg

<https://www.ims.fraunhofer.de/en.html>

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