

University of Groningen

Fluorescent nanodiamonds in cells: uptake, biocompatibility and quantum sensing

Zhang, Yue

DOI:
[10.33612/diss.797815264](https://doi.org/10.33612/diss.797815264)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2023

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):
Zhang, Y. (2023). *Fluorescent nanodiamonds in cells: uptake, biocompatibility and quantum sensing*. [Thesis fully internal (DIV), University of Groningen]. University of Groningen.
<https://doi.org/10.33612/diss.797815264>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

PROPOSITIONS

Fluorescent nanodiamonds in cells: uptake, biocompatibility and quantum sensing

1. Fluorescent nanodiamond is a good candidate for image quantitative analysis. (this thesis)
2. Not all cells are created equal. (this thesis)
3. pHrodo Green Dextran conjugate can enhance the cellular uptake of nanodiamonds and indicate surrounding pH. (this thesis)
4. Fluorescent nanodiamonds do not affect the metabolic activity or cell viability of boar sperm cells at low concentration. (this thesis)
5. Diamond relaxometry can reveal the dynamics of free radicals without being interfered by the surround environment. (this thesis)
6. Compared to healthy donors, primary cells isolated from chronic obstructive pulmonary disease (COPD) patients are more susceptible to cigarette smoke extract (CSE) intervention. (this thesis)
7. Nicht hasten. Nicht rasten. (Don't hurry. Don't rest.) (Waldeijer)
8. Anyone who has never made a mistake has never tried anything new. (Albert Einstein)