

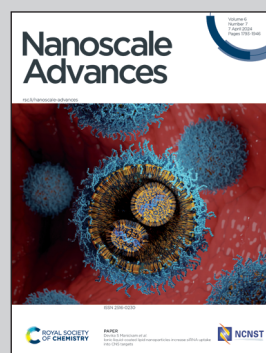
Showcasing research from Assistant Professor Mariana Dalarsson's group, School of Computer Science and Electrical Engineering, KTH Royal Institute of Technology, Stockholm, Sweden.

Radiofrequency absorption of coated ellipsoidal gold nanoparticles in human tissue

Gold nanoparticles (AuNPs) localized within cancer cells may be heated by applied radiofrequency fields as a means of remote hyperthermia cancer treatment. The treatment relies on ligands attached to the AuNPs for tumor-specific targeting. This work presents coating effects on the radiofrequency Joule heating of ligand-coated AuNPs. Of particular interest are nanoparticles with high aspect ratios such as nanowires and nanodiscs. The presence of coating is found to strongly impact the overall electromagnetic absorption.

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As featured in:



See Brage Bøe Svendsen *et al.*,
Nanoscale Adv., 2024, 6, 1880.