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Sala de Conferencias
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Impulso

nano-Particles, micro-NMR & mini-Devices

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Within the Laboratory of BioNanoTechnology (BioNT) in Wageningen, The Netherlands, we design and investigate novel materials and systems over a multitude of length scales. I will elaborate on a few examples in three of our research areas. Starting at the lower nanometer scale, we are intrigued by the self-assembly processes that govern formation and dynamics of (hard & soft) subcomponents in hybrid coacervate-core micelle systems, which we study with high-resolution NMR spectroscopy and (cryo-)TEM. We are further inspired by the potential of miniaturizing analytical instruments, and in particular, we develop our own microfluidic NMR & micro-MRI set ups for, e.g., reaction monitoring and plant imaging. And finally, we are advocating open-technology and DIY approaches in science as well as teaching, with polydimethylsiloxane (PDMS) as our work horse in creating mini-sensors & devices, among others for pathogen, e.g. COVID-19, detection.