REGATA

Rede Galega de Tratamento de Augas

Research Stays 2014

Compound Nanoprobes

November 06th, 2014 | December 17th, 2014

Objectives

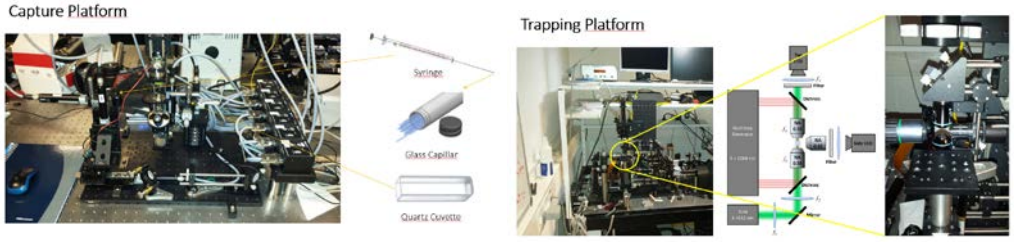
The topic for the joint undertakings was specifically on using unique nano-plasmonics capsules from the Team Nano Tech group together with the proprietary wave-guided optical waveguides (WOWs) on the BioPhotonics Workstation at DTU in Denmark to produce compound nanoprobes for sensing.

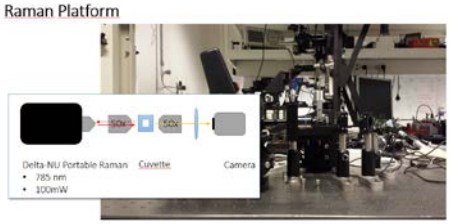
Methodology

1. Fabrication of nanocapsules.
2. Determination of the best strategy.
3. Nanocapsules attachment.
4. Raman enhanced setup.
5. Embed the raman functionality into the trapping system.
6. Test the compound system as a nanoprobe.

Results

- Three different platforms have been design, optimize and successfully tested in order to fabricate the compound nanoprobes: the capture platform, the testing platform and the raman platform.



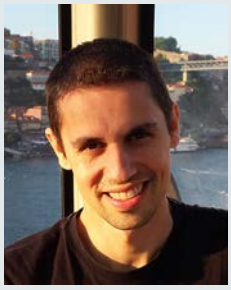


Highlights

- Nanocapsule functionalization increase the probability of attachment, although further experiments are needed.

Researcher

Óscar Ameneiro Prieto



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