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A MAGNETIC SERS PROBE FABRICATION AND IN CELL

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We have fabricated a magnetic SERS probe for biomedical detection through a handy modified Stöber reaction. The silica reaction is occurred under magnetic field to align the magnetic particles and string them together to form micro rob structure. Its geographical magnetic moment offers a perfect platform for precise movement and locomotion manipulation under magnetic field. We can make it go through a micro scaled maze easily to reach targeted area via magnetic guiding and driving. Not only it could move as we designed but also it could rotate with demanding angular velocity for some very special application such as cell tissue depletion experiments. Its surface satellite doping silver is just adding SERS (Surface Enhanced Raman Spectrum) as an extra function for its biomedical detection. The detection ability is checked by crystal violet *in vitro*. The full potential of biomedical sensor *in vivo* will be explored in view. Its multi-functional ability makes it an outstanding candidate for further biomedical application such as micro surgery robot, biomedical sensor and of course targeted drug delivery mediation

Biography

Huanhuan Feng has completed his PhD from Wageningen University and Postdoctoral studies in Wageningen University. He is an Assistant Professor of School of Materials Science and Engineering, Harbin Institute of Technology (Shenzhen). He has published more than 20 papers in reputed journals and has been serving as an Editor of Open Chemistry, De Gruyter.

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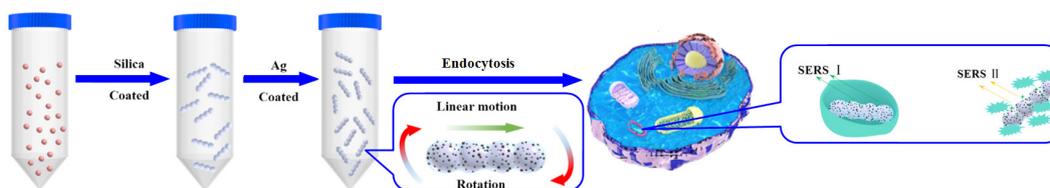


Figure 1: Schema of SERS probe fabrication and experiments in cell