

## *Nanometric markers: High-efficacy and fast molecular finding*

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### *Description*

UVIGO and CSIC have jointly developed nanometric particles especially tagged to identify drugs, pathological agents, cells or whatever objects –that previously has been in physical contact with these particles- in a fast, reliable, selective and very flexible way that allows the use of several detection techniques. The present technology improves the compounds research state-of-the-art providing coded particles than widen the detection methodologies and enables instant analysis. Moreover, they are described both the way of producing the coded particles and the way of use.

### *Innovative aspects and advantages*

In comparison with current methods of multiplex detection:

- Very flexible; detection of the coded particles is possible through all spectroscopic methodologies (particularly Surface Enhanced Raman Spectroscopy SERS).
- Very high number of applications: Finding out of drugs, pathogenic compounds detection, even elements which have been in physical contact with the particles such as documents, bank notes, etc.
- Simple analysis thanks to the attached biomolecule which provides a full mechanism of the reactions.
- 2,000 Times more sensitive in pathogenic compounds detection than traditional fluorescent spectroscopy. The detection limit is on a femtomolar-order.
- Design highly versatile. The elements of the particles are chosen from a wide range of compounds, so almost every detection problem can be tackled.

### *Commercial applications and Potential users*

Industrial partners of markers or traceability sectors are being sought to collaborate through a patent license agreement.

### *Patent status*

PCT application

### *Contact*

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