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NANOstructured active MAGneto - plasmonic MAterials

Partners



Short facts

- NANOMAGMA NANOstructured active MAGneto-plasmonic MAterials
- EC contribution 2.963.156 Euros
- Contract number FP7-214107-2
- N° of partners 10
- Coordinator IMM / CSIC (Spain) / Antonio Garcia-Martin
- Start date November 01, 2008
- Duration 36 months
- WEB site www.nanomagma.com

Nanomagma Objectives

The purpose of this European funded project is the study, development and application of a novel concept of nanostructured materials formed by the combination of components with plasmonic and magneto-optic (MO) activity. This smart combination will produce "magneto-plasmonic" nanomaterials tailored on the nanoscale.

Highlights

- Experimental verification of plasmon wave vector modulation by magnetic fields
- Strong enhancement of the MO response due to localized plasmon excitation
- Development of a versatile numerical tool for the analysis of the optical and MO response of magneto-plasmonic structures of arbitrary shape
- Development of a novel SNOM for near field under magnetic fields (MO-SNOM)
- Development of a novel measurement bench for MO sensing devices, including microfluidics and functionalization protocols

Publications

- V.V. Temnov et al, Nat. Phot. (2010)
- B. Sepulveda et al, Phys. Rev. Lett. (2010)
- S. Albaladejo et al, Opt. Express (2010)
- C. de Julian et al, Nanotechnology (2010)
- C. Vandenberg et al, Journal of optics A: pure and applied optics (2010)
- MG Manera et al, Journal of Optics (2010)
- M Gheorghiu et al, Biosens Bioelectron. (2009)

Events



April 11-14, 2011
Bilbao Exhibition Centre (Spain)

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