

[News](#)

[Quantitative Evaluation of Nanosecond Pulsed Laser-Induced Photomodification of Plasmonic Gold Nanoparticles](#)

Posted: November 16, 2017

Biophotonic application of plasmonic gold nanoparticles has become a highly active field of research in recent years due to their unique chemical and physical properties, such as high absorption cross sections and spectral tunability¹. Many of the unique properties of gold nanoparticles are governed by the surface plasmon resonance (SPR) effect, a collective oscillation of [...]

[0 comments](#)

[Optoelectronics without glass](#)

Posted: November 6, 2017

Microscopic image of a chip. Top left: functional modulator with electrical contacts; right: test modulator without electrical contact; below: test components. Researchers at ETH Zurich have developed the first opto-electronic circuit component that works without glass and is instead made of metal. The component, referred to as a modulator, converts electrical data signals into optical [...]

[0 comments](#)

[Switching light with a silver atom](#)

Posted: November 6, 2017

The switch is based on the voltage-induced displacement of one or more silver atoms in the narrow gap between a silver and a platinum plate. Researchers working under Juerg Leuthold, Professor of Photonics and Communications, have created the world's smallest integrated optical switch. Applying a small voltage causes an atom to relocate, turning the switch [...]

[0 comments](#)

[Our New paper in Photonics and Nanostructures: Fundamentals and applications](#)

Posted: October 28, 2017

Congratulations for the publication of paper "All-optical photonic crystal logic gates using nonlinear directional coupler" in Journal of Photonics and Nanostructures – Fundamentals and Applications, by H. Sharifi, S. M. Hamidi and K. Navi.

[0 comments](#)

[Assembly of nanoparticles proceeds like a zipper](#)

Posted: October 24, 2017

It has always been the Holy Grail of materials science to describe and control the material's structure-function relationship. Nanoparticles are an attractive class of components to be used in functional materials because they exhibit size-dependent properties, such as superparamagnetism and plasmonic absorption of light. Furthermore, controlling the arrangement of nanoparticles can result in unforeseen

properties, [...]

[0 comments](#)

our new paper in IEEE Transaction on magnetism

Posted: October 24, 2017

Congratulations for the publication of paper "characterization of Au/Co/Au Magneto-plasmonic multilayer as an ethanol vapor sensor" in Journal of IEEE transaction on magnetism by M.Afsharia and S. M. Hamidi.

[0 comments](#)

Our New paper in Journal of Superconductivity and Novel Magnetism

Posted: September 19, 2017

Congratulations for the publication of paper "Transverse Tunable Magneto-Plasmonic Kerr Effect in Large Area Micro-Patterned Au/Co/Au Structures" in the "Journal of Superconductivity and Novel Magnetism" by S. M. Hamidi, S. Behjati, F. Sohrabi.

[0 comments](#)

Our New Paper in Journal of optics and laser technology

Posted: September 15, 2017

Congratulations for the publication of paper "Large area multi-channel plasmonic absorber based on the touching triangular dimers fabricated by angle controlled colloidal nanolithography" in the "Journal of optics and Laser

Technology” by S. M. Hamidi, S. Behjati.

[0 comments](#)

Fano resonances in photonics

Posted: September 3, 2017

Rapid progress in photonics and nanotechnology brings many examples of resonant optical phenomena associated with the physics of Fano resonances, with applications in optical switching and sensing. For successful design of photonic devices, it is important to gain deep insight into different resonant phenomena and understand their connection. Here, they review a broad range of [...]

[0 comments](#)

Congratulations for the publication of paper “Plasmon- exciton induced circular dichroism in Gold/PMMA (RB) complex”

Posted: September 1, 2017

Congratulations for the publication of paper “Plasmon- exciton induced circular dichroism in Gold/PMMA (RB) complex” by Dr Hamidi, Ms Jafari, Mr Behjati and Ms Sohrabi. In this paper, we have investigated the strong coupling between exciton-plasmon by the aid of reflectance spectroscopy under different dye molecules weight in the samples. For this purpose, we have [...]

[0 comments](#)