

An experiment on single molecule fluorescence near photonic nanostructures is the front page picture of the Journal of Microscopy.



The February 2008 issue of J. Microscopy is a thematic issue fully dedicated to near-field optics and related techniques. The research of Gabriel Sanchez-Mosteiro (Niek van Hulst's group) in collaboration with Gerard Colas-de-Francis and Alain Dereux (University of Bourgogne) appears on the cover. Many single fluorescent molecules can be seen spread around optical corrals acting as microcavities. The corrals are composed of 100 nm gold pads, 18 in a 3 micrometer circle, and show up by luminescence of the gold. Gabriel has analyzed the radiative lifetime of the molecules as a function of position and orientation relative to the cavities. Inside the cavities both inhibition and enhancement of radiative decay occurs.

The same issue contains as well a paper by A. L. Lereu, G. Sánchez-Mosteiro, P. Ghenuche, R. Quidant and N. Van Hulst on the study of individual gold dimers by far- and near-field imaging.