**Fluorescence spectroscopy using a smartphone**

**09.11.2012** - Scientists in Germany have used digital photographs to extract colour and spectral information of reactive fluorophores. They studied the optical properties of different pyridine-substituted cross-conjugated fluorophores (XF). Upon protonation of the pyridine nitrogen, the colour changes of XFs in the presence of carboxylic acids were used to identify them by digital photography. Data extraction of the photographs is done using a statistical model based on RGB colour, allowing analytes to be identified.

Fluorescence responses, recorded photographically, could be used instead of spectroscopic examination – making the technique fast and inexpensive. The concept could lead to simple “photographic” spectrometers, which could be integrated into smartphone apps for automatic interpretation of complex spectroscopic data to study various analytes of clinical or environmental importance.