Abstract

An apparatus for the qualitative and/or quantitative measurement of analytes, in particular in biological samples by means of receptor ligand binding and having a magnetizing device for the production of a magnetic field at the location of the sample and with a detection device for measurement of magnetic properties of the sample is characterized in that the magnetizing device (11'; 11'') is spatially disposed with respect to the detection device (71, 8, 9, 10; 16; 20) in such a fashion that the magnetic field produced by the magnetization device (11', 11'') at the location of the magnetization is attenuated by at least a factor of 10, and preferentially by a factor of 1000 or more, at the location occupied by the sample during the measurement, or in that a switching device is provided for which, throughout a predetermined time duration and in particular during the measurement phase of the detection device (71, 8, 9, 10; 16), can switch-off the magnetic field of the magnetizing device (11; 21) at the location of the sample (12). In this fashion new types of measurements for magnetorelaxometric detection of analytes or for the detection of analytes by means of remanence measurements can be carried out in a routine and economical fashion in vitro or in vivo. (Fig. 1)