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Multi-ion imaging using fluorescent sensors in a microtiterplate array format

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Abstract:

A novel type of sensor array destined for water analyses is described. The sensor delivers simple on/off patterns of complex ion mixtures. Fluorescent indicators for Ca^{2+} , Na^+ , Mg^{2+} , SO_4^{2-} , Cl^- and Hg^{2+} were arranged in microtiterplates and the analytical information was imaged with a CCD camera within microseconds using an intrinsically referencing method.