

Abstract

Handheld instrument and mobile device for x-ray fluorescence analysis

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The invention relates to a handheld instrument and a mobile device for x-ray fluorescence analysis, having a housing (29) and a handle (14), having an x-ray fluorescence measurement device arranged in the housing (29) which comprises a radiation source, by which a primary beam is directed onto a measurement surface (38) of a measurement object (39) through an outlet window (31), having a detector arranged in the housing (29) which detects the secondary radiation emitted by the measurement surface (38) of the measurement object (39), having a data processing device arranged in the housing (29) which controls at least one display (19) which is provided on the housing (29) or is connected to it, wherein the outlet window (31) is provided on a front-side end of a first housing section (30) of the housing (29) and at least one positioning element (33) is provided on the first housing section (30), allocated to this outlet window (31), a support element (36) is provided on at least one further housing section (33) of the housing (29), at a distance to the outlet window (31) on the first housing section (30), and the handheld instrument (14) is aligned with respect to the measurement surface (38) after the positioning on the measurement surface (38) of the measurement object (39) by the at least one positioning element (33) and the at least one support element (36) and is positioned autonomously with respect to the measurement surface (38) in a measurement position (57). (For this purpose see Figure 3)

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