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(54) Title: A METHOD OF ANALYSING A SAMPLE AND APPARATUS THEREFOR

(57) Abstract: A method of analysing a sample of biological material using apparatus including processing means comprises the steps of: (a) irradiating the sample with electromagnetic and/or ionizing radiation; (b) detecting electromagnetic radiation emanating from the sample and generating a signal in response thereto; and (c) modifying the sample, labels in the sample and/or the environmental conditions of the sample with the apparatus in response to user input after the beginning of step (a) and/or in response to analysis by the processing means of the signal generated in radiation detection step (b). Thus modifications may be determined and executed interactively as an experiment progresses, and therefore directed towards specific structures and/or events identified as of particular interest in the course of the experiment.