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(54) Title: IMAGING SYSTEM AND METHOD FOR SPECIMEN DETECTION

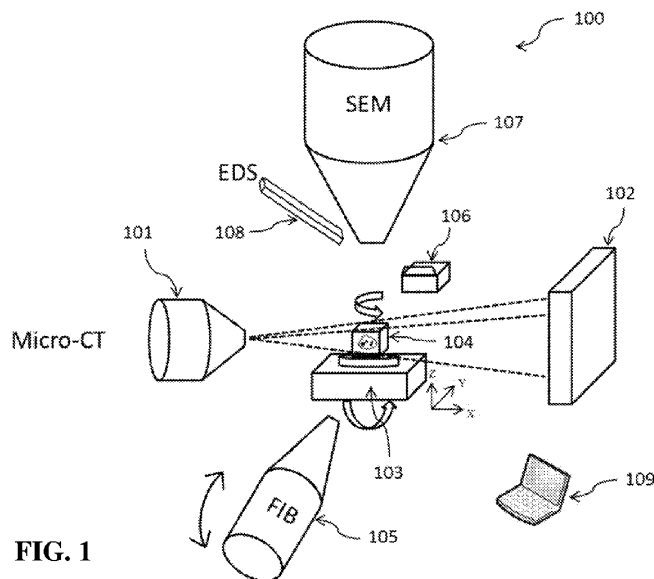


FIG. 1

(57) Abstract: An imaging system (100) is provided, and includes: a micro computed tomography (micro-CT) subsystem, a specimen processing subsystem, a scanning electron microscopy (SEM) (107) and a processor (109). The micro-CT subsystem includes an X-ray source (101) and an X-ray detector (102), and is configured to acquire a three-dimensional image of a specimen (104). The specimen processing subsystem includes a focused ion beam subsystem (105) and a mechanical cutting device (106). The focused ion beam subsystem (105) is configured to process the specimen (104) in a first processing manner, and the mechanical cutting device (106) is configured to process the specimen (104) in a second processing manner to obtain a target section of a target area. The SEM (107) is located above the specimen (104) and is configured to acquire a two-dimensional image of the target section. The processor is configured to perform three-dimensional reconstruction on the two-dimensional images to obtain a three-dimensional imaging of the

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