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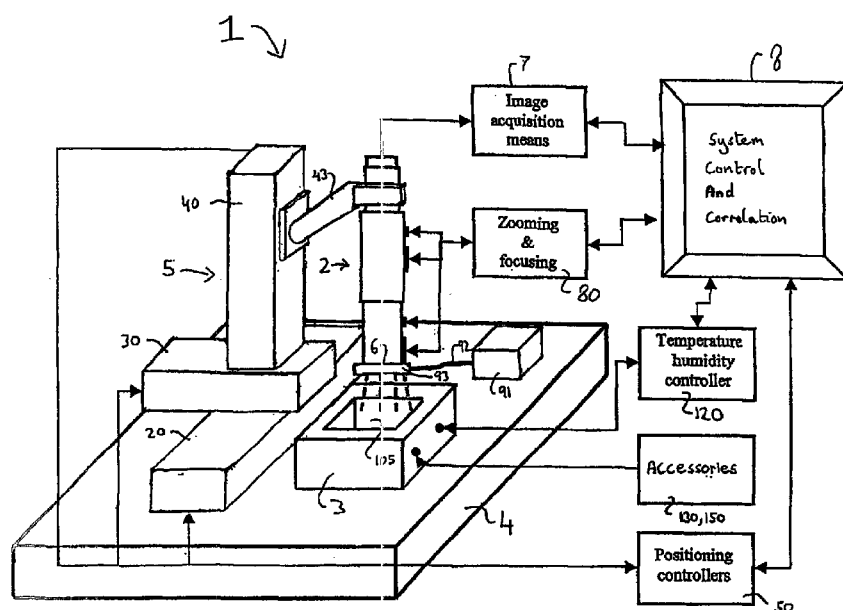
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(54) Title: SYSTEMS AND METHODS FOR DEFORMATION MEASUREMENT



(57) Abstract: A system for the real-time and in-situ macro and micro measurement of in-plane deformations of a microelectronic package or the like comprises a closed environmental chamber (3) within which a test sample may be subjected to thermal cycle loading and/or humidity loading, an incoherent white light source (6) for illuminating the sample, a long-working-distance microscope (2) and image acquisition means (7) for capturing speckle patterns from the surface of the sample during loading, and a control (8) for automating the co-ordination of the various components and for analysing the speckle images using digital image speckle correlation.



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