to the motion detection sensors, such that detection of sliding of the heatsink 100 triggers an automatic recording of the critical angle α_c by the rotational sensors 312.

[0040] In some cases, the parameter related to the coefficient of friction is related to the static friction of the heatsink 100. Alternatively and/or additionally, the parameter related to the coefficient of friction is related to the dynamic friction of the heatsink 100. In some embodiments, the parameter related to the coefficient of friction may be related to a break-away force which is a force at which sliding of the heatsink 100 initiates (e.g., on a horizontal surface). For example, the parameter related to the coefficient of friction may be determined by application of a variable force F applied to the heatsink 100 resting on a horizontal surface. The variable force F may be increased until initiation of sliding of the heatsink 100 occurs. The variable force F at which sliding is initiated (i.e., a critical force Fc) is recorded. One or more motion sensors may be used to detect the motion of the heatsink 100. One or more load cells may be used to record the variable force F and/or the critical force Fc. The parameter related to the coefficient of friction may be determined using other experimental techniques.

[0041] In other embodiments, rather than a parameter related to the coefficient of friction, a parameter related to the hardness of the heatsink 100 or the color of the heatsink 100 is sensed to determine if the heatsink should be reconditioned or may be used to process additional semiconductor structures.