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(54) Title: APPARATUS AND METHODS FOR SEMICONDUCTOR WAFER PROCESSING EQUIPMENT

(57) Abstract: The invention relates generally to equipment for semiconductor wafer processing, for example, mechanisms and apparatus for handlig pods or containers for housing silicon wafers or substrates. The pod may be a front-opening unified pod or similar article and may house a carrier or cassette for holding the wafers or substrates. Additionally, the invention relates generally to an automated system for transporting a plurality of wafers in the pod for processing, loading the pod on the receiving station, sealig the pod against an interface, openeing the door of the pod, and shuttling the wafers into and out of a connected clean environment processing station, such as an ion implantation machine, using a robotic device.