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(54) Title: METHODS FOR CLEANING MICROELECTRONIC STRUCTURES

(57) Abstract: A method of cleaning and removing water, entrained solutes and particulate matter during a manufacturing process from a microelectronic device comprises the steps of: (a) providing a partially fabricated integrated circuit, MEM's device, or optoelectronic device having water and entrained solutes on the substrate; (b) providing a densified carbon dioxide cleaning composition, the cleaning composition comprising carbon dioxide and, optionally but preferably, a cleaning adjunct; (c) immersing the surface portion in the densified carbon dioxide drying composition; and then (d) removing the cleaning composition from the surface portion.