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(54) Title: DETECTING A PROCESS ENDPOINT FROM A CHANGE IN REFLECTIVITY

(57) Abstract: A substrate processing apparatus comprises a process chamber capable of processing a first material on the substrate. A radiation source is capable of emitting radiation that is reflected from the substrate during processing. A radiation detector is provided to detect the reflected radiation and generate a signal trace. A controller is adapted to receive the signal trace and evaluate an endpoint of processing the first material from a change in the signal trace that is distinctive of an exposure of a second material having a different reflectivity coefficient than the first material.