

CONTROLLED RESIDENCE CMP POLISHING METHOD

Abstract of the Disclosure

The invention provides a method for polishing or planarizing a wafer of at least one of semiconductor, optical and magnetic substrates. The method includes rotating a polishing pad, the rotating polishing pad having radial feeder grooves in the polishing layer separating the polishing layer into polishing regions. The polishing regions are circular sectors defined by two adjacent radial feeder grooves. The radial feeder grooves extend from a location adjacent the center to a location adjacent the outer edge. Each polishing region includes a series of biased grooves connecting a pair of adjacent radial feeder grooves. Pressing and rotating the wafer against the rotating polishing pad for multiple rotations of the polishing pad adjusts polishing by either increasing or decreasing residence time of the polishing fluid under the wafer.

[Figure 1]