

COMPOSITIONS AND METHODS FOR POLISHING SILICON NITRIDE MATERIALS

ABSTRACT

The present invention provides a method for polishing silicon nitride-containing substrates. The method comprises abrading a surface of a silicon nitride substrate with a polishing composition, which comprises colloidal silica, at least one acidic component, and an aqueous carrier. The at least one acidic component has a pKa in the range of 1 to 4.5. The composition has a pH in the range of 0.5 pH units less than the pKa of the at least one acidic component to 1.5 pH units greater than the pKa.

No Figure