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(54) **Title:** CHEMICAL MECHANICAL POLISHING SLURRY COMPOSITIONS, METHODS OF PREPARING THE SAME AND METHODS OF USING THE SAME

(57) **Abstract:** Provided herein are chemical mechanical polishing (CMP) slurries and methods for producing the same. Embodiments of the invention include CMP slurries that include (a) a metal oxide; (b) a pH-adjusting agent; (c) a fluorinated surfactant; and (d) a quaternary ammonium surfactant. In some embodiments, the fluorinated surfactant is a non-ionic perfluoroalkyl sulfonyl compound. Also provided herein are methods of polishing a polycrystalline silicon surface, including providing a slurry composition according to an embodiment of the invention to a polycrystalline silicon surface and performing a CMP process to polish the polycrystalline silicon surface.