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(71) Applicant: **CABOT MICROELECTRONICS CORPORATION** [US/US]; 870 North Commons Drive, Aurora, IL 60504 (US).

(72) Inventors: **DE REGE THESAURO, Francesco**; c/o Legal Department, Cabot Microelectronics Corp., 870 North Commons Drive, Aurora, IL 60504 (US). **BRUSIC, Vlasta**; c/o Legal Department, Cabot Microelectronics Corp., 870 North Commons Drive, Aurora, IL 60504 (US). **BAYER, Benjamin, P.**; c/o Legal Department, Cabot Microelectronics Corp., 870 North Commons Drive, Aurora, IL 60504 (US).

(74) Agent: **TURNER-BRIM, Phyllis, T.**; Cabot Microelectronics Corporation, 870 North Commons Drive, Aurora, IL 60504 (US).

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(54) Title: CMP OF NOBLE METALS

(57) Abstract: The invention provides a method of polishing a substrate comprising (i) contacting a substrate comprising a noble metal layer with a chemical-mechanical polishing system comprising (a) a polishing component, (b) an oxidizing agent, and (c) a liquid carrier, and (ii) abrading at least a portion of the noble metal layer to polish the substrate. The polishing component is selected from the group consisting of an abrasive, a polishing pad, or a combination thereof, and the oxidizing agent is selected from the group consisting of bromates, bromites, hypobromites, chlorates, chlorites, hypochlorites, perchlorates, iodates, hypoiodites, periodates, peroxyacetic acid, organo-halo-oxy compounds, salts thereof, and combinations thereof. The chemical-mechanical polishing system has a pH of 9 or less, and the oxidizing agent does not produce a substantial amount of elemental halogen. The invention also provides a method of polishing a substrate comprising a noble metal layer and a second layer using the aforementioned polishing system that further comprises a stopping compound.

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