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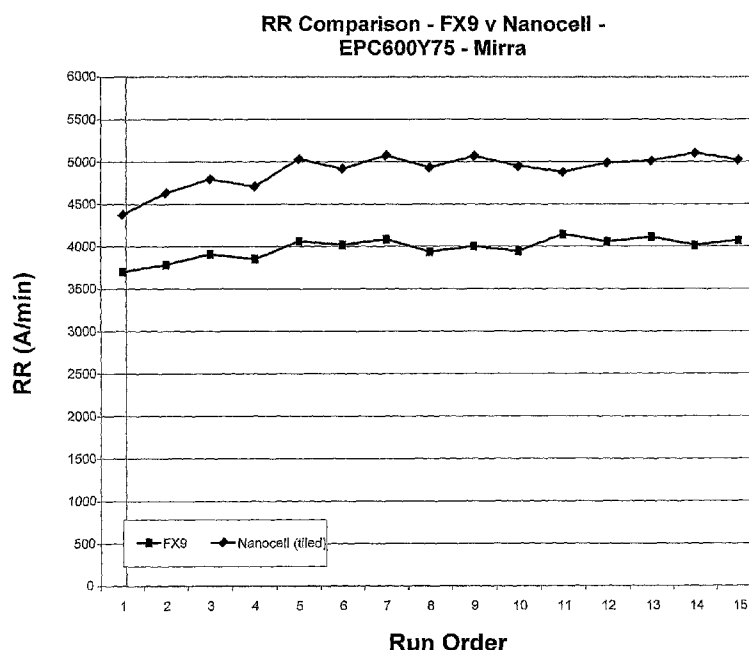
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(54) Title: TRANSPARENT MICROPOROUS MATERIALS FOR CMP



(57) Abstract: The invention is directed to a chemical-mechanical polishing pad substrate comprising a microporous closed-cell foam characterized by a narrow pore size distribution in the range of 0.01 microns to 10 microns. The polishing pad is produced by foaming a solid polymer sheet with a supercritical gas under an elevated temperature and pressure until the sheet is saturated with gas. The invention is further directed to a polishing pad comprising the polishing pad substrate, a method of polishing comprising the use of the polishing pad substrate, and a chemical-mechanical apparatus comprising the polishing pad substrate.