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— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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[Continued on next page]

(54) Title: TRAPPING GLUCOSE PROBE IN PORES OF POLYMER

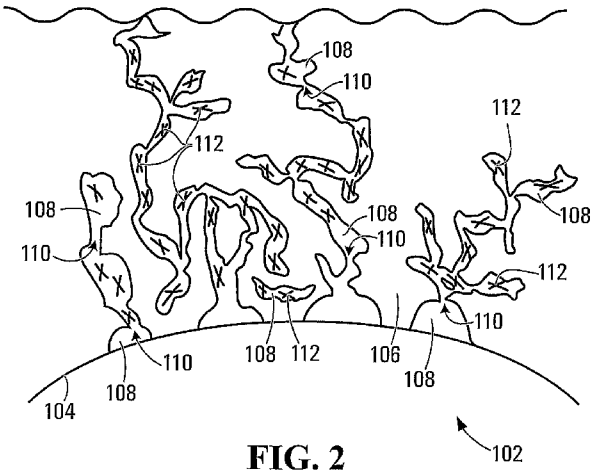


FIG. 2

(57) Abstract: A polymer matrix defining pores is formed by polymerizing polymer precursors in a precursor solution. The precursor solution comprises a bicontinuous microemulsion of a first fluid in a first continuous phase and a second fluid in a second continuous phase. The first fluid comprises the polymer precursors. The second fluid comprises the glucose probe. Some internal pores are connected to surface pores in the matrix through openings sized to allow passage of glucose molecules but restrict passage of the glucose probe. As the glucose probe is dispersed in the precursor solution prior to polymerization, some glucose probe molecules are trapped in the internal pores after polymerization. The formed polymer may be used in an ophthalmic device such as contact lens, for detecting the presence of glucose in an ocular fluid.

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