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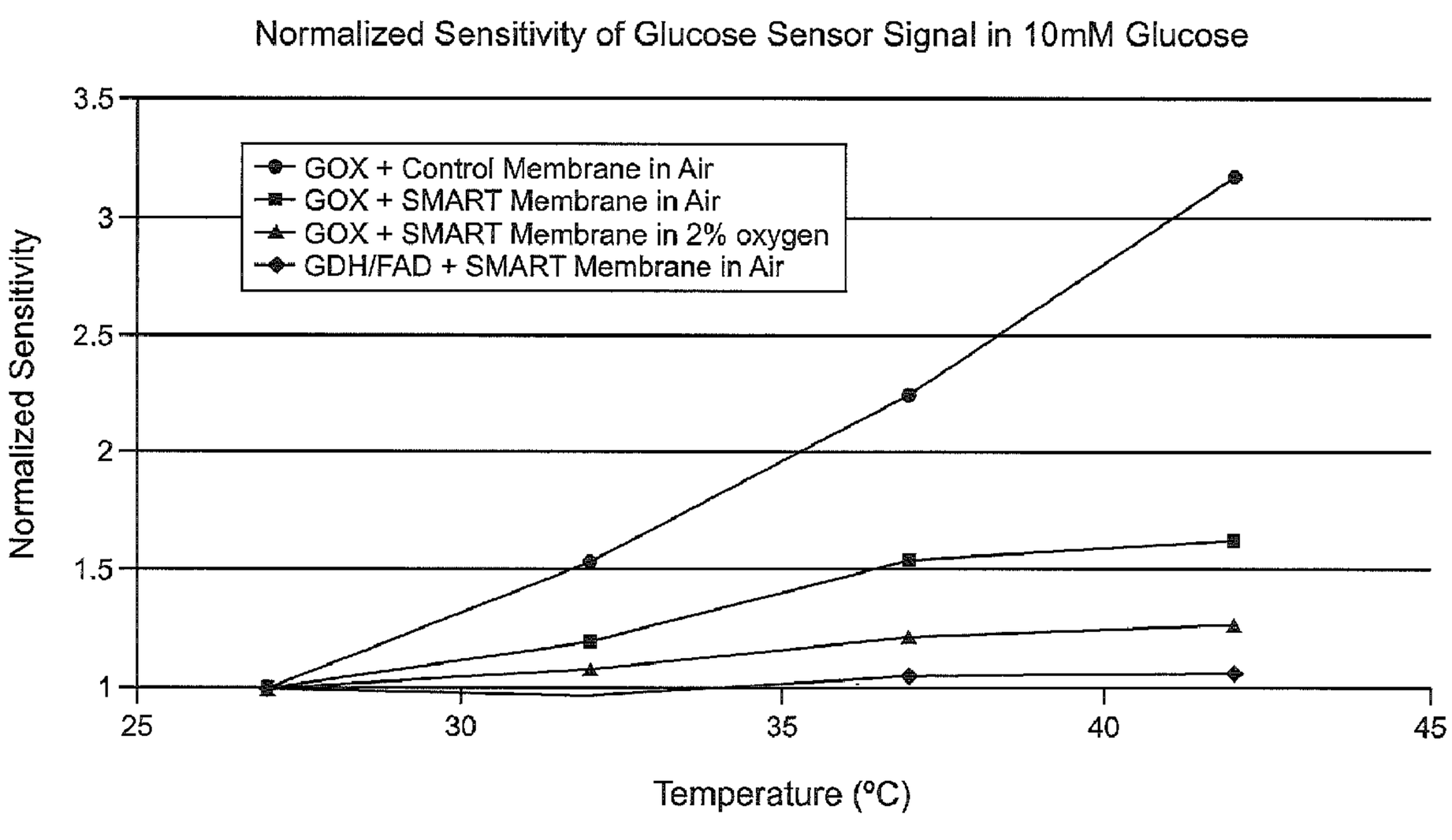


FIG. 1

(57) Abrégé/Abstract:
Membrane structures are for use in analyte sensors, where the membrane structures exhibit low temperature sensitivity. In vivo analyte monitoring devices, systems and methods that are temperature insensitive to analyte permeability at least at temperatures

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(57) Abrégé(suite)/Abstract(continued):
for which the insensitive in vivo analyte monitoring devices, systems and methods are or could be exposed (SMART devices, systems and methods), such as in vivo use temperatures like room temperatures, mammalian body temperatures, and the like. The SMART membranes regulate the permeability of analyte (e.g., glucose) through the membrane at different temperatures to maintain a constant permeability over a range of temperatures, and minimize or in some instances eliminate changes in sensitivity values of the in vivo analyte sensor with which the SMART membranes are used.