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(54) Title: SYSTEMS AND METHODS FOR OPTICAL MEASUREMENT OF ANALYTE CONCENTRATION

(57) Abstract: A method and sensor for measuring the concentration of an analyte about radiantly excitable indicator molecules. A stimulus waveform is used to drive a radiant source. The indicator molecules are exposed to the radiant source. A response waveform is generated to represent photoluminescent radiation emitted by the indicator molecules. A phase difference between the stimulus waveform and the response waveform is a function of the concentration of the analyte that enables determining the analyte concentration.

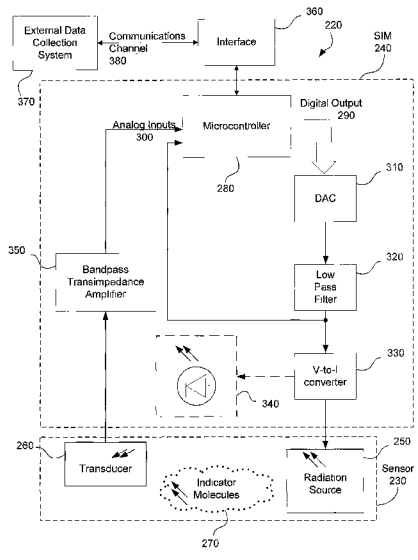


FIG. 2

370...Système de collecte de données externe
380...Canal de communication
280...Microcommande
300...Entrées analogiques
290...Sortie numérique
310...Convertisseur N/A
320...Filtre passe-bas
350...Amplificateur à transimpédance passe-bande
260...Transducteur
270...Molécules indicatrices
250...Source de rayonnement
230...Capteur
330...Convertisseur de tension vers courant

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