

<p>公開番号 又は 登録番号</p>	<p>特許 5380174</p>
<p>発明名称</p>	<p>蛍光水ドロゲルビーズ及びそれを用いた体内埋め込み用の糖類測定用センサー</p>
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<p>想定デバイス</p>	<p>体内埋め込み型血糖値センサ、薬物動態の長期連続計測、シート型健康管理デバイス</p>
<p>要約</p>	<p>【利用分野】 蛍光水ドロゲルビーズおよびそれを用いた体内埋め込み用の糖類測定用センサーに関するもの。 【発明の内容】 糖類検出能に優れ、低侵襲性の体内埋め込み用糖類測定用センサーを提供するものであり、下記化学式1で表される構造を有する蛍光水ドロゲルビーズ、およびそれを用いた体内埋め込み用の糖類測定用センサー。</p>
<p>図面</p>	<p>The figure contains two parts. The upper part is a chemical structure (Chemical Formula 1) showing a central fluorescent hydrogel bead. The bead is a polystyrene derivative with a central core containing a fluorophore (a benzene ring with substituents Q, Q', Q'', and Q'''). This core is connected via nitrogen atoms to two phenylboronic acid groups (HO-B(OH)2). These boronic acid groups are further linked to polymer chains. The left chain consists of a repeating unit with a nitrogen atom (U1, U3) and a carbonyl group (A1), with a subscript q1. The right chain consists of a repeating unit with a nitrogen atom (U2, U4) and a carbonyl group (A2), with a subscript q2. The chains are connected to the core via linkers X1, Y1, Z1 and X2, Y2, Z2. The lower part is a schematic diagram of the sensor. It shows a cross-section of a skin layer (2) with a sensor (1) embedded in it. The sensor (1) is a circular device with a central electrode (4) and a surrounding layer (5). Below the skin, a reservoir (3) is shown, which is connected to the sensor. Arrows indicate the flow of substances between the sensor and the reservoir.</p>