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(54) **TRANSPARENT STRUCTURES FILLED WITH ELECTRICALLY ACTIVE FLUID**

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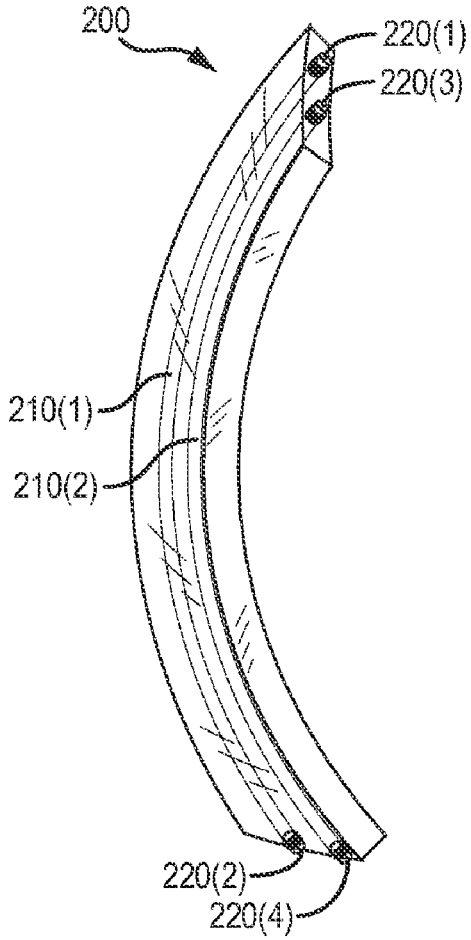
(57) **ABSTRACT**

Transparent structures containing a transparent electrically conductive fluid are used for aesthetically appealing designs and/or improved fatigue performance. Some structures have multiple isolated conductors while others have a single conductive area that may be used as a transparent antenna or a transparent EMI shield. Other embodiments employ fluids that change crystalline structure under an applied voltage such that a structure can change color and/or display a message.