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ABSTRACT

The invention relates to an electro-optrode neural interface, comprising an optical fiber which is elongated so as to be insertable into a body, and which is located at a core portion so as to form an optical electrode portion, and a liquid crystal polymer(LCP) sample encircling the optical fiber. The LCP sample has an adhesive sheet, and an LCP electrode layer encircling the adhesive sheet, wherein the adhesive sheet and the LCP electrode layer are coupled to each other. The electro-optrode neural interface is formed by combining into a single unit, an electrical interface in which an electrode for stimulating deep brain or measuring neural signals from deep brain is arranged in a liquid crystal polymet and an optical interface such as an optical fiber, a waveguide and an endoscope. The electro-optrode interface of the present invention may enable an electro-optrode to be inserted into a body which electrically or optically monitoring the position of the electro-optrode in real time, and may be mass producted.