Abstract

A probe (1) is used for measuring the oxygen content in biological tissue. The probe comprises at least one optical fibre (2), which can be proximally optically coupled to a light source on the one hand and to a light sensor on the other. An oxygen-sensitive dye (5) is arranged on and optically coupled to a distal end face of the fibre (2). A distal fibre portion (6), including the distal end face, is enclosed, together with the dye (6) by an oxygen-permeable, liquid-impermeable membrane (7) which, in the enclosed region, defines a gas compartment (8) surrounding the distal end face with the dye (5). The probe (1) is a component of a catheter (14) which also comprises a temperature sensor (30) and preferably a pressure sensor (28). The result is a probe in which the sensitivity of the fibre to disruptive environmental influences at the measuring location is reduced and the scope for interpreting the measurement results is improved.

- Fig. 5 -