

Title (en)  
SENSOR DEVICES AND ANALYTICAL METHODS USING THEM

Title (de)  
ELEKTRISCHES FLUSSIGKEITERHITZUNGSGEFÄSS

Title (fr)  
RECIPIENTS ELECTRIQUES DE CHAUFFAGE DE LIQUIDE

Publication  
**EP 1002447 A1 20000524 (EN)**

Application  
**EP 98937666 A 19980805**

Priority  
• GB 9802348 W 19980805  
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• GB 9716561 A 19970805

Abstract (en)  
[origin: WO9908485A1] Improved sensor devices responsive to ionic changes, and especially pH changes, of media in contact with them, wherein the sensor element is coated with diamond-like carbon, and analytical methods for their use. The device is especially applicable to systems in which the pH change measured is the result by enzyme action, particularly by formation of a basic product, for example using urease as the enzyme to form ammonia from urea. The preferred sensor element is a solid-state device, notably an enzyme field effect transistor in which the enzyme is bound on the surface of a semiconductor in conjunction with a conducting polymer, preferably poly-pyrrole. Determinations are usually made by measurement of the impedance of the sensor when in contact with a buffered solution of the sample to be examined, and can be used for determining urea levels in blood.  
[origin: WO9908485A1] An electric liquid heating vessel (2) has a heated wall part (6) which is of a 300 series stainless steel, with a thick film heater (4) laminated to its dry side.

IPC 1-7  
**H05B 3/82**; **H05B 3/26**; **H05B 3/30**

IPC 8 full level  
**C12Q 1/00** (2006.01); **G01N 27/30** (2006.01); **G01N 27/414** (2006.01); **H05B 3/26** (2006.01); **H05B 3/30** (2006.01); **H05B 3/82** (2006.01)

CPC (source: EP)  
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See references of WO 9908485A1

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