

WOLFGANG TRETTNAK

Patente & wissenschaftliche Publikationen

Patente

1. K. Biebernik, W. Trettnak und F. Reininger, Opto-chemischer Sensor sowie Verfahren zu seiner Herstellung, Öst. Patent Nr. AT 407 090 B (2000), Europäisches Patent Nr. EP-B 1 114 309 (2009), US-Patent-Anmeldung Nr. 09/802 971.
2. O. S. Wolfbeis und W. Trettnak, Verfahren zur Bestimmung der Konzentration eines Enzymsubstrates und Sensor zur Durchführung des Verfahrens, Öst. Patent Nr. AT 390 803 B (1988), Japanisches Patent Nr. 1 962 444 (1994), U.S. Patent Nr. 5,340,722 (1994).

Wissenschaftliche Veröffentlichungen (Auswahl)

1. F. Baldini, A. Falai, A. R. DeGaudio, D. Landi, A. Lueger, A. Mencaglia, D. Scherr, and W. Trettnak, Continuous monitoring of gastric carbon dioxide with optical fibres, *Sensors and Actuators B*, **90** (2003) 132-138.
2. H. S. Voraberger, W. Trettnak and V. Ribitsch, Optochemical hydrogen peroxide sensor based on oxygen detection, *Sensors and Actuators B*, **90** (2003) 324-331.
3. M. Trinkel, W. Trettnak and C. Kolle, Oxygen trace analysis utilising a miniaturised luminescence lifetime-based sensor instrumentation, *Química Analítica*, **19** (2000) 112-117.
4. A. N. Ovchinnikov, V. I. Ogurtsov, W. Trettnak and D. B. Papkovsky, Enzymatic flow-injection analysis of metabolites using new type of oxygen sensor membranes and phosphorescence phase measurements, *Anal. Letters*, **32(4)** (1999) 701-716.
5. W. Trettnak, C. Kolle, F. Reininger, C. Dolezal, P. O'Leary and R. A. Binot, Optical oxygen sensor instrumentation based on the detection of luminescence lifetime, *Adv. in Space Research*, **22(10)** (1999) 1465-1474.
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7. M. Trinkel, W. Trettnak, F. Reininger, R. Benes, P. O'Leary and O. S. Wolfbeis, Optochemical sensor for ammonia based on a lipophilized pH indicator in a hydrophobic matrix, *Int. J. Environ. Anal. Chem.*, **67** (1997) 237-251.
8. W. Trettnak, C. Kolle, F. Reininger, C. Dolezal and P. O'Leary, Miniaturized luminescence lifetime-based oxygen sensor instrumentation utilizing a phase modulation technique, *Sensors and Actuators B*, **35-36** (1996) 1-7.
9. P. Hartmann and W. Trettnak, Effects of polymer matrices on calibration functions of luminescent oxygen sensors based on porphyrin-ketone complexes, *Anal. Chem.*, **68** (1996) 2615-2620.
10. M. Trinkel, W. Trettnak, F. Reininger, R. Beneš, P. O'Leary and O. S. Wolfbeis, Study of the performance of an optochemical sensor for ammonia, *Anal. Chim. Acta*, **320** (1996) 235-243.
11. W. Trettnak, W. Gruber, F. Reininger, P. O'Leary and I. Klimant, New instrumentation for optical measuring of oxygen in gas or dissolved in liquids, *Adv. Space Res.*, **18** (1996) 139-148.
12. D. B. Papkovsky, G. V. Ponomarev, W. Trettnak and P. O'Leary, Phosphorescent complexes of porphyrin ketones: Optical properties and application to oxygen sensing, *Anal. Chem.*, **67** (1995) 4112-4117.
13. W. Trettnak, W. Gruber, F. Reininger and I. Klimant, Recent progress in optical oxygen sensor instrumentation, *Sensors and Actuators B*, **29** (1995) 219-225.

14. B. H. Weigl, A. Holobar, W. Trettnak, I. Klimant, H. Kraus, P. O'Leary and O. S. Wolfbeis, Optical triple sensor for measuring pH, oxygen and carbon dioxide, *J. Biotechnology*, **32** (1994) 127-138.
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2. W. Trettnak, Optical sensors based on fluorescence quenching, in **Fluorescence Spectroscopy: New Methods and Applications** (O. S. Wolfbeis, Hrsg.), Springer Verlag, New York, (1993) 79-89.
3. W. Trettnak, M. Hofer and O. S. Wolfbeis, Applications of optochemical sensors for measuring environmental and biochemical quantities, in "**Sensors: A Comprehensive Survey**", W. Göpel, J. Hesse and J. N. Zemel (Hrsg.), VCH Publ., Weinheim, Vol. 3/II (1991), Chapter 18, 931-967.
4. W. Trettnak, Optische und faseroptische Sensoren in der analytischen Chemie (Review), *GIT Fachzeitschrift für das Laboratorium*, GIT Verlag GmbH, Darmstadt, **11/89** (1989) 1097-1103.