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(54) **Blood oxygen monitoring system and a lead therefor**

(57) An oxygen monitoring system (10) in rate responsive pacing includes an oxygen monitoring circuit (25) embedded in a cardiac stimulation lead (14). The oxygen monitoring circuit (25) includes a working electrode (36), a counter electrode (38), a reference electrode (40) and an IC chip (56) electrically interconnected between the electrodes (16,18). The IC chip (56) varies

the value of current generated by a current source coupled between the working electrode (36) and counter electrode (38) in a manner to maintain the voltage between the working electrode (36) and reference electrode (40) at a preselected value. The variation of the current source value is a direct measure of the blood oxygen concentration.

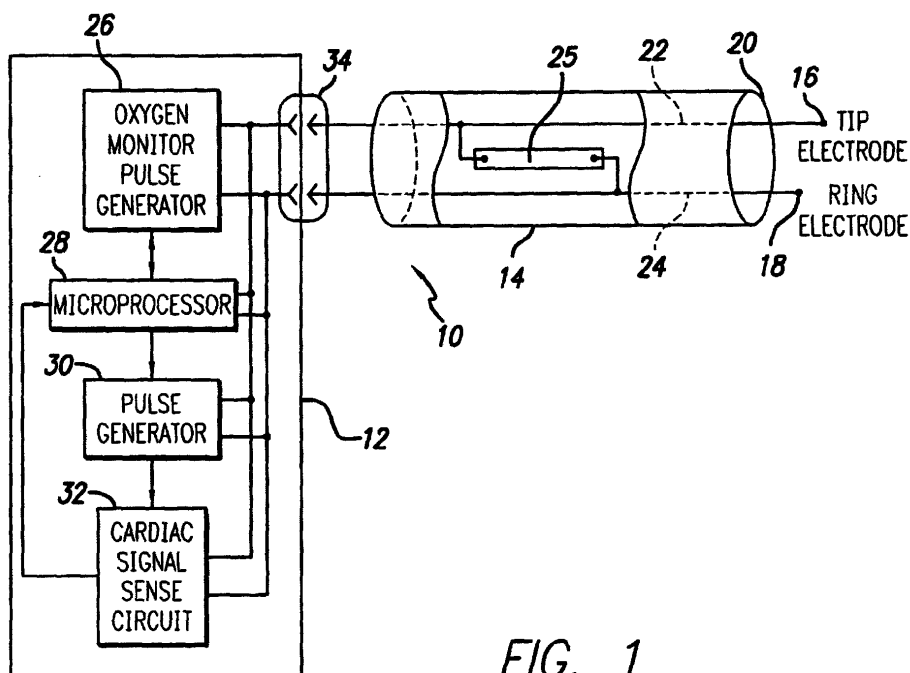


FIG. 1



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 04 25 1684

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)	
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A	--- US 5 298 146 A (BRADEN CHRISTOPH ET AL) 29 March 1994 (1994-03-29) * whole document *	2-17		
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The present search report has been drawn up for all claims				
Place of search MUNICH		Date of completion of the search 30 August 2004	Examiner Edward, V	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document				

EPO FORM 1503 03 82 (P04C01)

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EP 04 25 1684

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	血氧监测系统及其引导		
公开(公告)号	EP1468641A3	公开(公告)日	2004-10-27
申请号	EP2004251684	申请日	2004-03-24
申请(专利权)人(译)	艾尔弗雷德·E·曼基金会为科研		
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发明人	SCHULMAN, JOSEPH H.		
IPC分类号	A61N1/365 G01N33/49 A61B5/00		
CPC分类号	A61N1/36557 G01N33/4925		
代理机构(译)	佩吉特, HUGH CHARLES EDWARD		
优先权	10/418860 2003-04-16 US		
其他公开文献	EP1468641A2 EP1468641B1		
外部链接	Espacenet		

摘要(译)

速率响应起搏中的氧气监测系统 (10) 包括嵌入心脏刺激引线 (14) 中的氧气监测电路 (25)。氧监测电路 (25) 包括工作电极 (36)，对电极 (38)，参比电极 (40) 和电极互连在电极 (16,18) 之间的IC芯片 (56)。IC芯片 (56) 以保持工作电极 (36) 和参考电极 (40) 之间的电压的方式改变耦合在工作电极 (36) 和对电极 (38) 之间的电流源产生的电流值。在预选值。电流源值的变化是血氧浓度的直接量度。

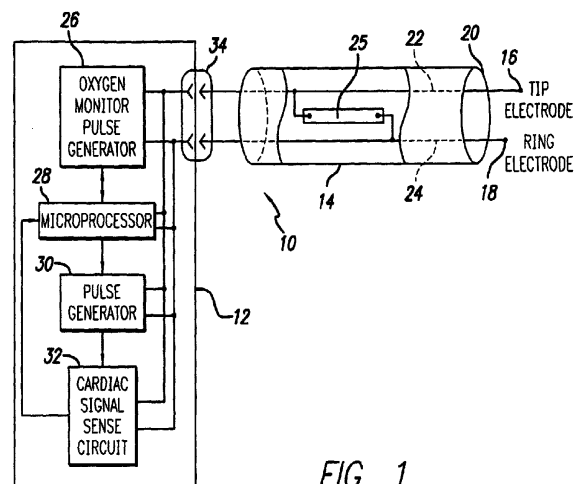


FIG. 1