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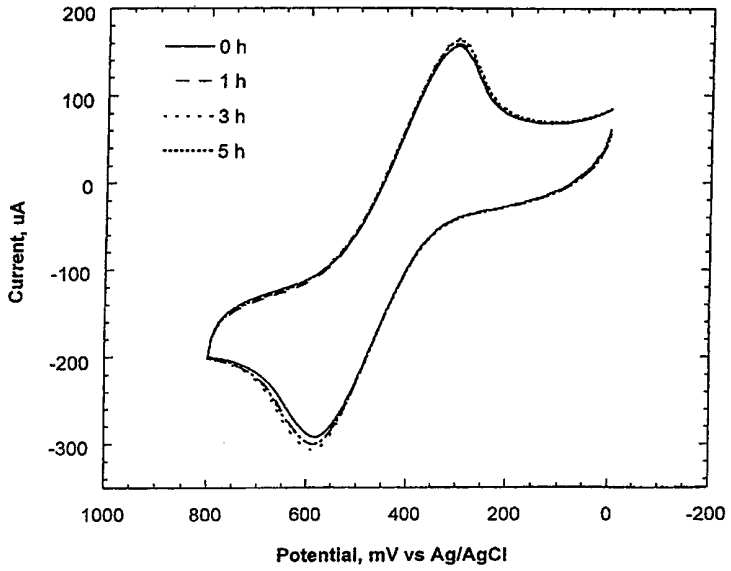
(54) Title: ELECTROANALYTICAL APPLICATIONS OF SCREEN–PRINTABLE SURFACTANT–INDUCED SOL–GEL GRAPHITE COMPOSITES



(57) Abstract

A novel process for preparing sol–gel graphite composite electrodes is presented. This process preferably uses the surfactant bis(2–ethylhexyl) sulfosuccinate (AOT) and eliminates the need for a cosolvent, an acidic catalyst, a cellulose binder and a thermal curing step from prior art processes. Fabrication of screen–printed electrodes by this process provides a simple approach for electroanalytical applications in aqueous and nonaqueous solvents. Examples of applications for such composite electrodes produced from this novel process include biochemical sensors such as disposable, single–use glucose sensors and ligand modified composite sensors for metal ion sensitive sensors.

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INTERNATIONAL SEARCH REPORT

Int. ional Application No
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A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 G01N27/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 403 462 A (LEV OVADIA ET AL) 4 April 1995 see abstract ---	1,9,18, 22-24
A	P. V. A. PAMIDI: "STRUCTURALLY AND CHEMICALLY MODIFIED SOL-GEL CARBON THICK FILM GLUCOSE SENSORS " POLYMERIC MATERIALS SCIENCE AND ENGINEERING, SPRING MEETING, APRIL 1997, vol. 76, April 1997, pages 513-514, XP002100828 SAN FRANCISCO, US see the whole document --- -/--	1

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
22 April 1999	06/05/1999

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Duchatellier, M

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INTERNATIONAL SEARCH REPORT

Int. .tional Application No
PCT/US 98/22833

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
A	J. GUN: "SOL-GEL DERIVED, FERROCENYL-MODIFIED SILICATE-GRAPHITE COMPOSITE ELECTRODE: WIRING OF GLUCOSE OXIDASE" ANALYTICA CHIMICA ACTA, vol. 336, no. 1-3, 1996, pages 95-106, XP002100829 see the whole document	1

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INTERNATIONAL SEARCH REPORT

Information on patent family members

Int. ional Application No
PCT/US 98/22833

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5403462 A	04-04-1995	NONE	