

15 Documents

Publication numbers	Title	Current assignees
JP08233659 A	Spectrophotometer	SHIMADZU
JP09027213 A	Power source device for lighting	HAMAMATSU PHOTONICS
JP08226891 A	Spectrophotometer	YANAGIMOTO
EP-727810 A2	Gas discharge tube	HAMAMATSU PHOTONICS
JP06310101 A	Deuterium discharge tube	HITACHI
JP62103529 A	Multiunit tube and a spectrophotometer	TOSHIBA
JP08329732 A	Light source device of spectroscopy	SHIMADZU
EP-727812 A2	Gas discharge tube	HAMAMATSU PHOTONICS
EP-727811 A2	Gas discharge tube	HAMAMATSU PHOTONICS
EP-700073 A2	Gas discharge tube	HAMAMATSU PHOTONICS
EP-700071 A2	Gas discharge tube	HAMAMATSU PHOTONICS
EP-700072 A2	Gas discharge tube, lighting device using such a gas discharge tube and a method of operating such a lighting device	HAMAMATSU PHOTONICS
EP-685874 A1	Gas discharge tube	HAMAMATSU PHOTONICS
EP-600213 A1	Field portable liquid chromatographic system.	DU PONT DE NEMOURS
IT8167218 D0	Optical transducer	OLIVETTI

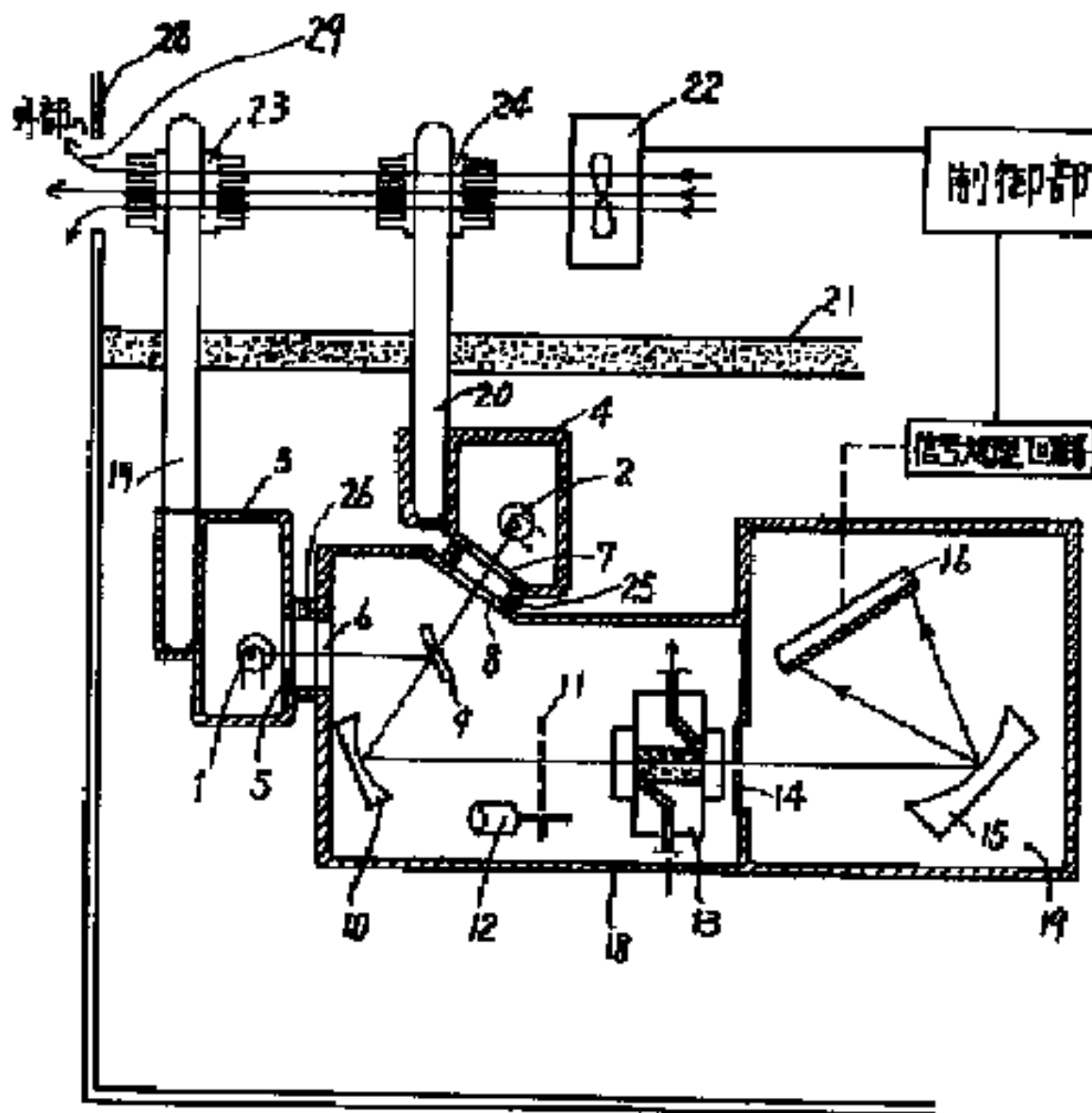
Family 1/15 - FAMPAT - ©Questel

Title

(JP08233659)

Spectrophotometer

Images



Publication data including kind & date

JPH08233659

A 1996-09-13 JP08233659



Abstract

(JP08233659)

PURPOSE: To provide a spectrophotometer by which a drift is reduced and temperature stability is enhanced even in a single beam system spectrophotometer using a photodiode array.**CONSTITUTION:** In a spectrophotometer to detect the light sent from light source chambers 3 and 4 by a photodiode array 16 of a polychromator chamber 17 after passing it through a flow cell 13 in a front optical part 18, one ends of heat pipes 19 and 20 are brought into close contact with the light source chambers 3 and 4, and the other ends of the heat pipes 19 and 20 are exposed outside of a shielding wall 21, and a cooling fan 22 is arranged to cool a heat pipe part appearing outside, and heat of the light source chambers is effectively removed by the heat pipes 19 and 20, and a photometric optical chamber 18 and the polychromator chamber 17 are prevented from being directly influenced by a cooling fan 22.

Inventors

KITAOKA MITSUO

Latest standardized assignees - inventors removed

SHIMADZU

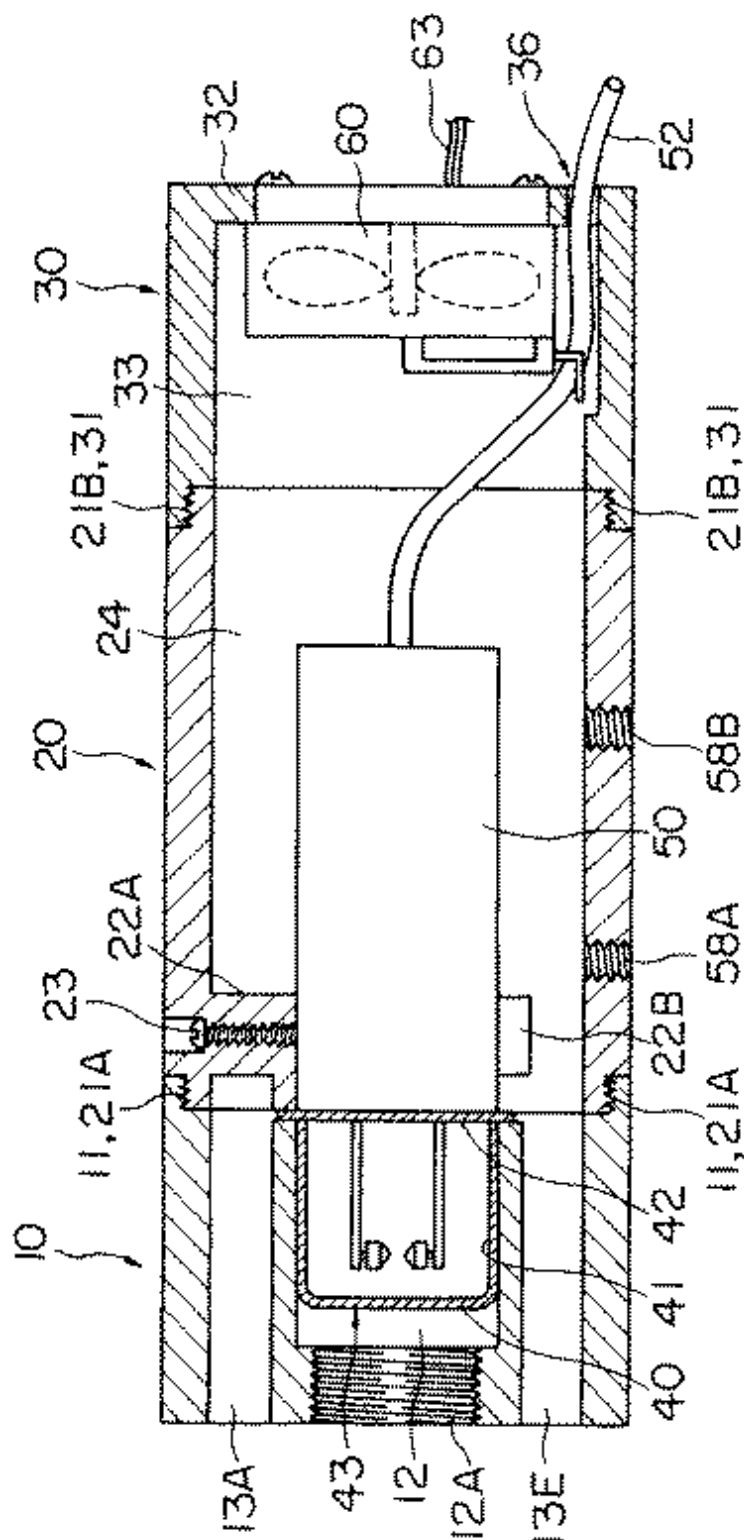
Family 2/15 - FAMPAT - ©Questel

Title

(JP09027213)

Power source device for lighting

Images



Publication data including kind & date

JPH0927213	A	1997-01-28	JP09027213
JP3788813	B2	2006-06-21	JP3788813



Abstract

(JP3788813)

PROBLEM TO BE SOLVED: To provide a compact and low-cost power source device with which emitted light quantity will not be deteriorated for a long period. **SOLUTION:** A lamp house is composed of a head part 10, a main body part 20, and a base part 30, a xenon lamp 40 is assembled in a through hole 12 in the head part 10, a trigger socket 50 is assembled in the main body part 20, and a cooling fan 60 is assembled in the base part 30. Because through holes 13A-H in the head part 10, an inner space 24 in the main body part 20, and an inner space 33 in the base part 30 are communicating with

each other, as the cooling fan 60 is driven, cooling air flows inside the lamp house without getting in contact with an output window 43 in the xenon lamp 40.

Inventors

MIYAMOTO MAKOTO

AMANO HIROYUKI

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

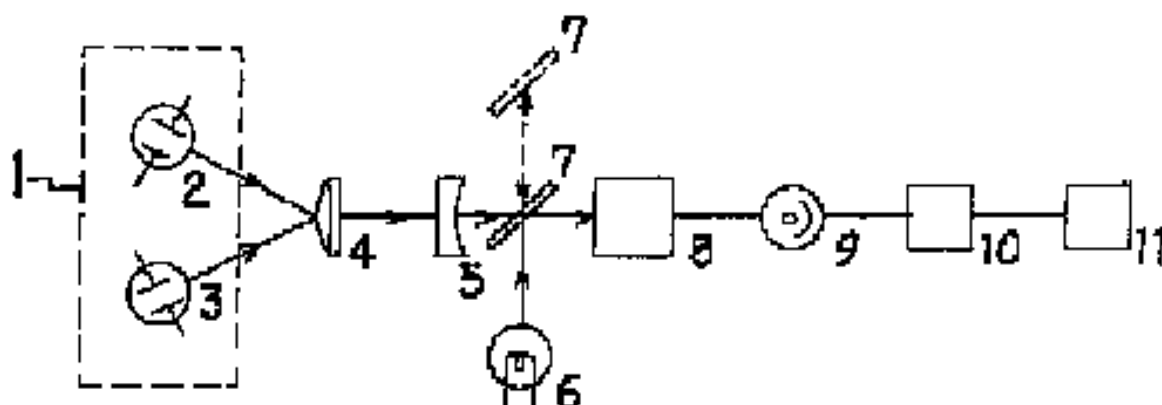
Family 3/15 - FAMPAT - ©Questel

Title

(JP08226891)

Spectrophotometer

Images

**Publication data including kind & date**[JPH08226891](#)

A

1996-09-03

JP08226891

**Abstract**

(JP08226891)

PURPOSE: To improve the sensitivity and precision of a spectrophotometer by a method wherein lights of two or more light sources for measurement having the same spectral characteristics substantially are synthesized as a single optical path and cast on a single spectroscopy. **CONSTITUTION:** A light source part 1 is equipped with light sources 2 and 3 of deuterium lamps having the same spectral characteristics substantially. Lights of the light sources 2 and 3 are converged into the same optical path by a lens 4 and cast on a sample absorbing part 8 by a lens 5. On the occasion, a movable reflector 7 reflects a visible light of a tungsten lamp 6 to the absorbing part 8 at a position of intersection of optical axes and

leads the ultraviolet light passing the lens 5 to the absorbing part 8 from a position outside the optical axis. A sample cell of the main body of the absorbing part 8 is designed so as to correspond to lengths of an irradiation light and a transmitted light according to an object of measurement and a purpose of measurement, and the light transmitted through the absorbing part 8 is subjected to photoelectric conversion 9 and amplified and computed by a measuring part 10. Since the light source part 1 has the two deuterium lamps, the intensity of the light is made large and the reliability of the ratio (I/I_0) between the incident light I_0 on a sample and the transmitted light I therethrough is improved. Besides, a very large (very small) quantity of absorption can also be detected accurately.

Inventors

MORI HIROTAKE

Latest standardized assignees - inventors removed

YANAGIMOTO

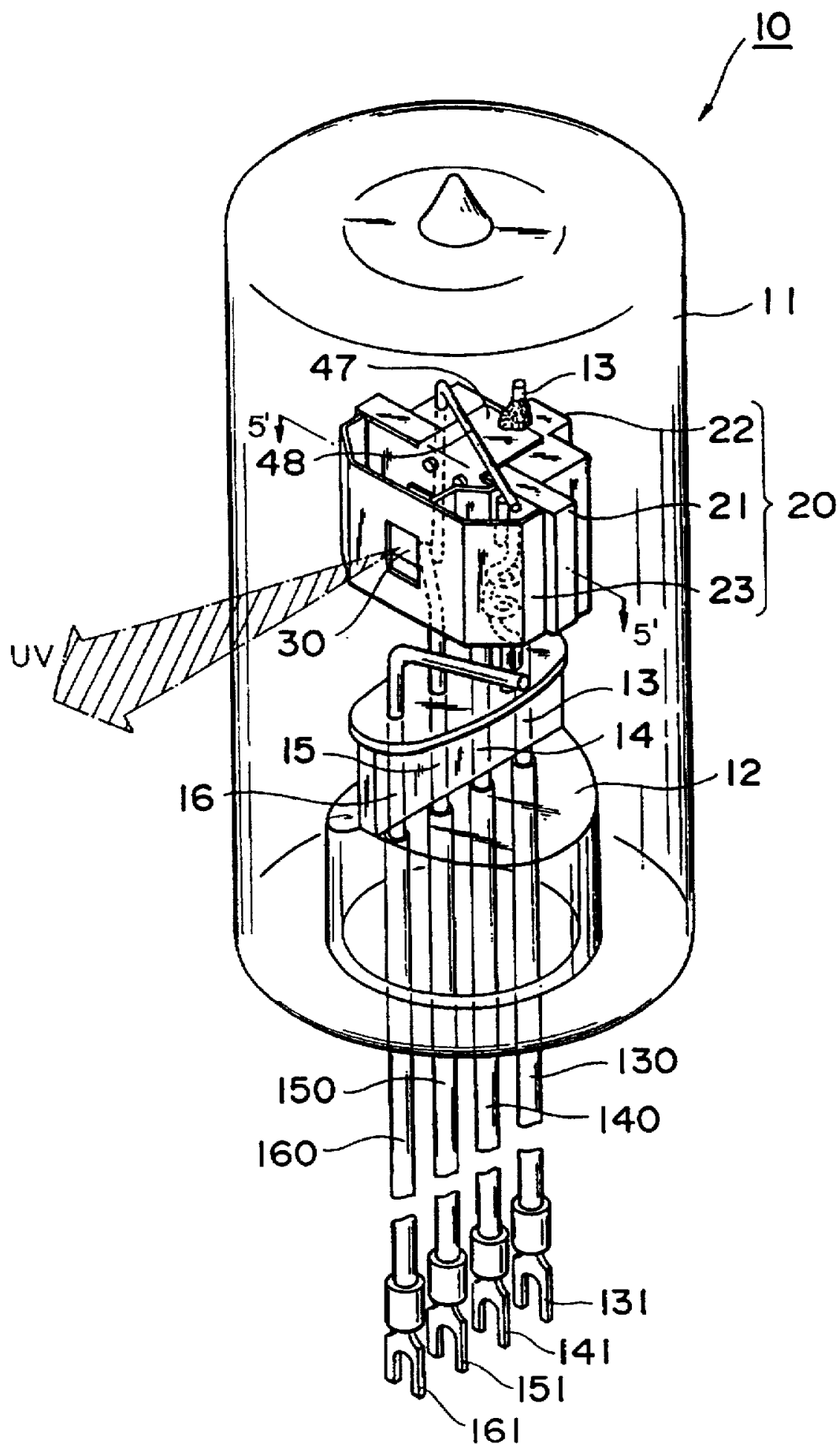
Family 4/15 - FAMPAT - ©Questel

Title

(EP-727810)

Gas discharge tube

Images

Fig. 1

Publication data including kind & date

EP0727810	A2	1996-08-21	EP-727810
JPH08222186	A	1996-08-30	JP08222186
US5698945	A	1997-12-16	US5698945
EP0727810	A3	1998-03-11	EP-727810
EP0727810	B1	2002-05-22	EP-727810
DE69621271	D1	2002-06-27	DE69621271
DE69621271	T2	2002-10-10	DE69621271
JP3361644	B2	2003-01-07	JP3361644

**Abstract**

(EP-727810)

A gas discharge tube comprises an envelope (11) for sealing a gas; lead pins(13-16); and a light-emitting assembly (20).The light-emitting assembly includes: a focusing electrode support member (21) of an insulator; a hot cathode (31) for emitting thermoelectrons; an anode (24) for receiving thermoelectrons; a focusing electrode (29) for converging paths of thermoelectrons; a spacer (50) of an insulator or a conductive material being arranged between the focusing electrode support member and the anode; and an anode support member (22) of an insulator for pushing the anode onto the focusing electrode support member through the spacer.A gas discharge tube having a long service life and capable of improving the operational stability during long-time continuous light emission can be provided.

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

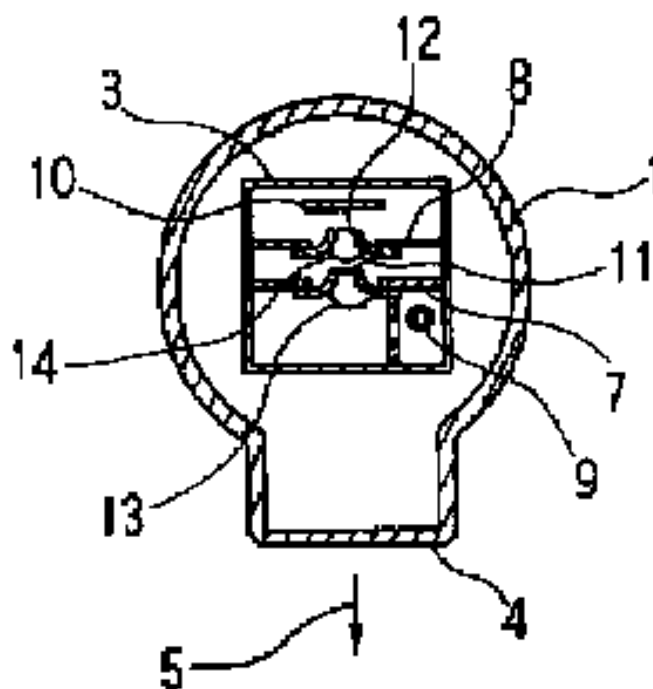
Family 5/15 - FAMPAT - ©Questel

Title

(JP06310101)

Deuterium discharge tube

Images

**Publication data including kind & date**[JPH06310101](#)

A 1994-11-04 JP06310101

**Abstract**

(JP06310101)

PURPOSE:To provide a deuterium discharge tube where luminance can be enhanced by a simple structure.
CONSTITUTION:A plurality of small holes 11, 12 for narrowing discharge paths inside a deuterium discharge tube 1 are arranged on an optical axis, thus providing the structure where positive column lights 13, 14 emitted through the small holes 11, 12 are superposed each other. With this constitution, it is possible to realize luminance twice as high as in a conventional device. Consequently, the use of this deuterium discharge tube 1 can enhance analyzing sensitivity of an analyzer for performing analysis by liquid chromatograph and light absorption. Furthermore, a discharge current and a

temperature at a tube wall of the discharge tube are the same as in the conventional device, thus preventing any adverse effect on the analyzer.

Inventors

ARAI YOJI

KIMURA TAKESHI

YASUDA MAKOTO

FUKUDA TAKESHI

MURAYAMA SEIICHI

Latest standardized assignees - inventors removed

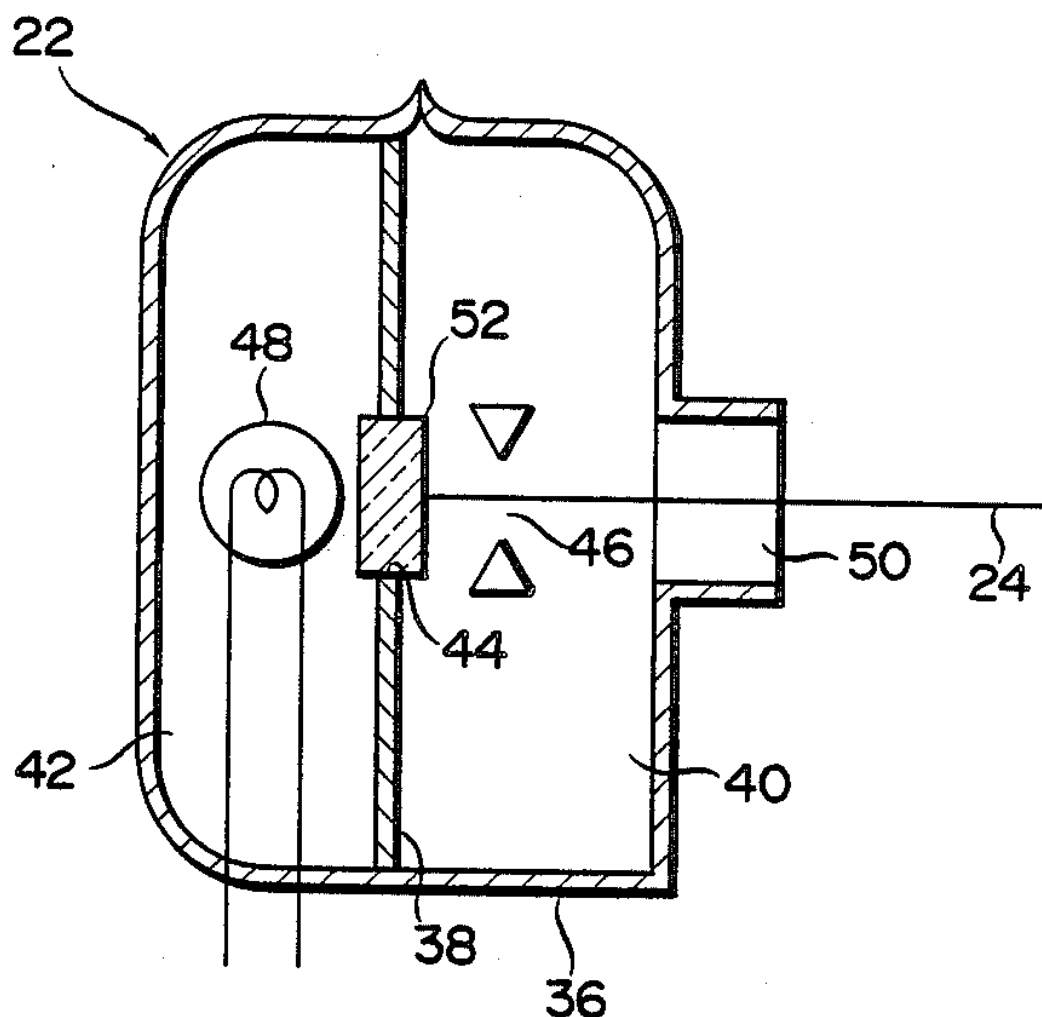
HITACHI

Family 6/15 - FAMPAT - ©Questel

Title

(US4812657)

Multiunit tube and a spectrophotometer

Images**Publication data including kind & date**[JPS62103529](#)

A 1987-05-14 JP62103529

[US4812657](#)

A 1989-03-14 US4812657

**Abstract**

(US4812657)

The inside of a casing of a multiunit tube is divided into two chambers by a partition wall. The partition wall is formed with an

opening through which light is transmitted. A deuterium lamp for emitting ultraviolet light, and a tungsten lamp for emitting visible light, are disposed in the first and second chambers, respectively. The casing is formed, on its first-chamber side, with a window, through which the ultraviolet and visible lights from the lamps are let out. The opening is fitted with a filter for reducing the luminous intensity of the visible light from the tungsten lamp.

Inventors

MINEKANE TOMIHARU

Latest standardized assignees - inventors removed

TOSHIBA

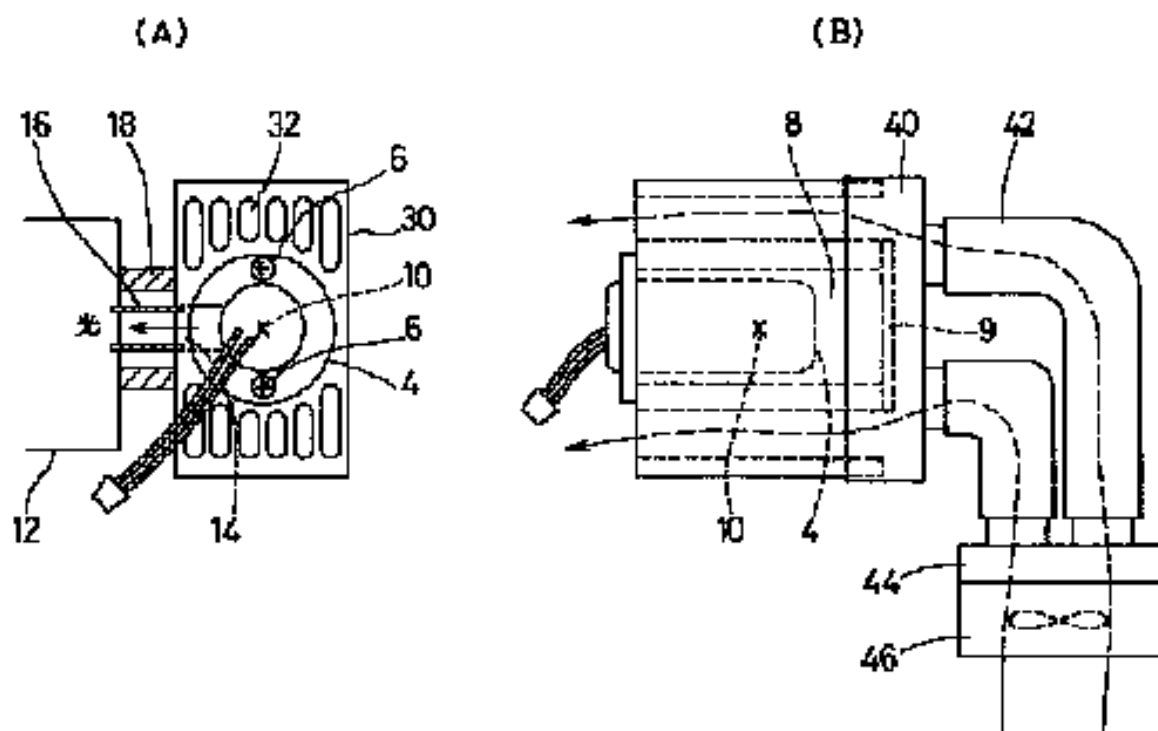
Family 7/15 - FAMPAT - ©Questel

Title

(JP08329732)

Light source device of spectroscope

Images



Publication data including kind & date

JPH08329732

A 1996-12-13 JP08329732



Abstract

(JP08329732)

PURPOSE: To effectively remove heat of a light source. **CONSTITUTION:** A light source block 32 has a space 8 into which a light source lamp 4 is inserted, and a light passing hole 14 leading to is space 8 is opened. The light passing hole 14 is communicated with a measuring optical system 12 by a cylindrical inside spacer 16. In order to pass a cooling air separately from the light passing hole 14, plural ventilation holes 32 penetrating in one direction are arranged in the light source block 30, and the ventilation holes 32 are joined to a fan 46 through a ventilation pipe 42. When a lamp 4 is lighted, the fan 46 is actuated, and the air from the fan 46 flows to the ventilation holes 32 through the ventilation pipe 42, and the light source

block 30 is cooled.

Inventors

KITAOKA MITSUO

Latest standardized assignees - inventors removed

SHIMADZU

Family 8/15 - FAMPAT - ©Questel

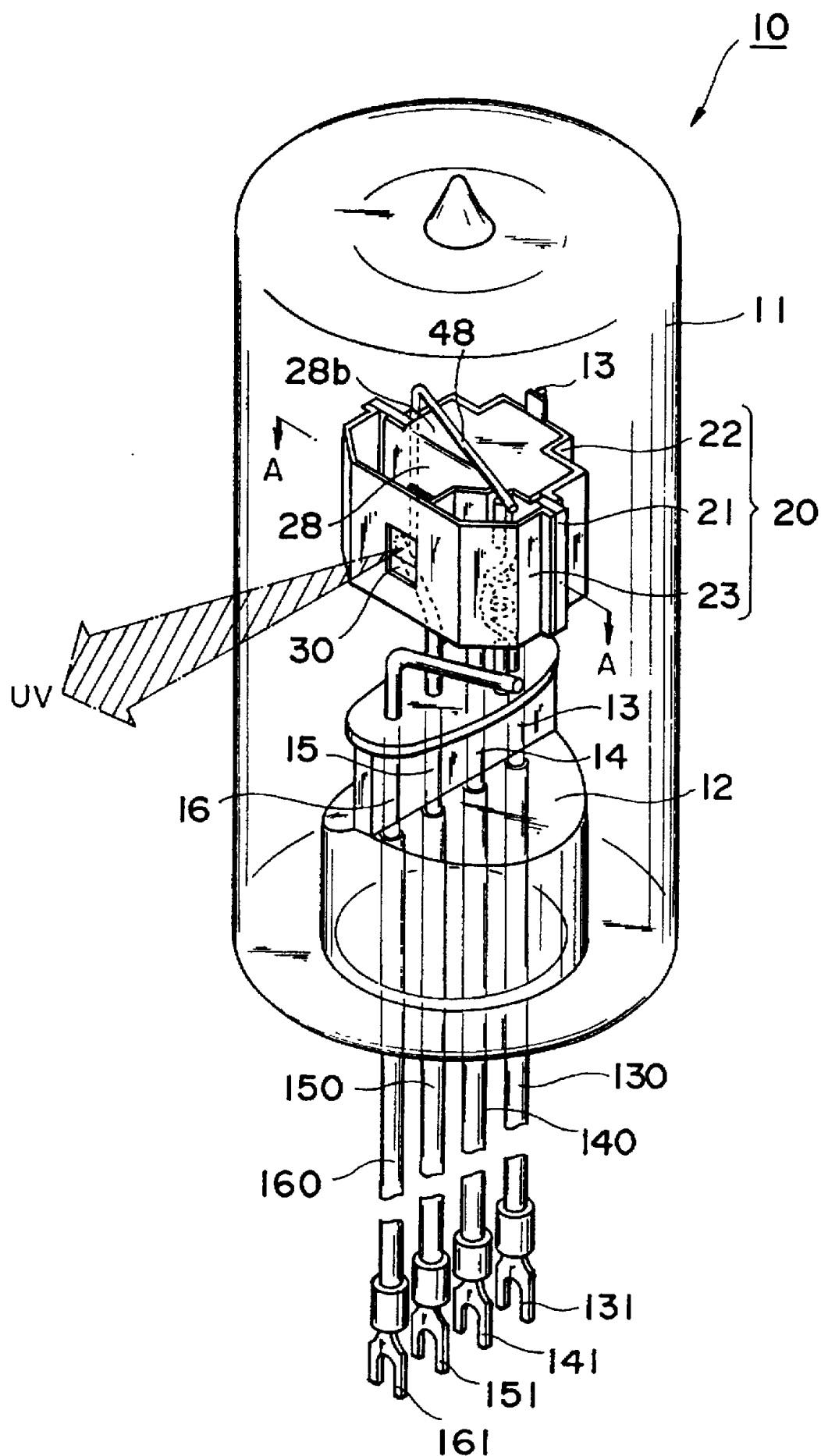
Title

(EP-727812)

Gas discharge tube

Images

Fig. 1



Publication data including kind & date

EP0727812	A2	1996-08-21	EP-727812
JPH08236081	A	1996-09-13	JP08236081
US5684363	A	1997-11-04	US5684363
EP0727812	A3	1998-03-11	EP-727812
EP0727812	B1	2002-05-02	EP-727812
DE69620936	D1	2002-06-06	DE69620936
DE69620936	T2	2002-11-07	DE69620936
JP3361402	B2	2003-01-07	JP3361402

**Abstract**

(EP-727812)

A gas discharge tube comprises an envelope (11) for sealing a gas, lead pins (13-16) and a light-emitting assembly (20). The light-emitting assembly includes: a focusing electrode support member (21) of a conductive material; a hot cathode (31) for emitting thermoelectrons; an anode (24) for receiving thermoelectrons; a focusing electrode (29) for converging paths of thermoelectrons; a first spacer (50a) of an insulator being arranged between the focusing electrode support member and the anode; a second spacer (50b) of an insulator being arranged at an opposite side to the first spacer through the anode; and an anode support member (22) of a conductive material for pushing the anode onto the focusing electrode support member through the first and second spacers. A gas discharge tube having a long service life and capable of improving the operational stability during long-time continuous light emission can be provided.

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

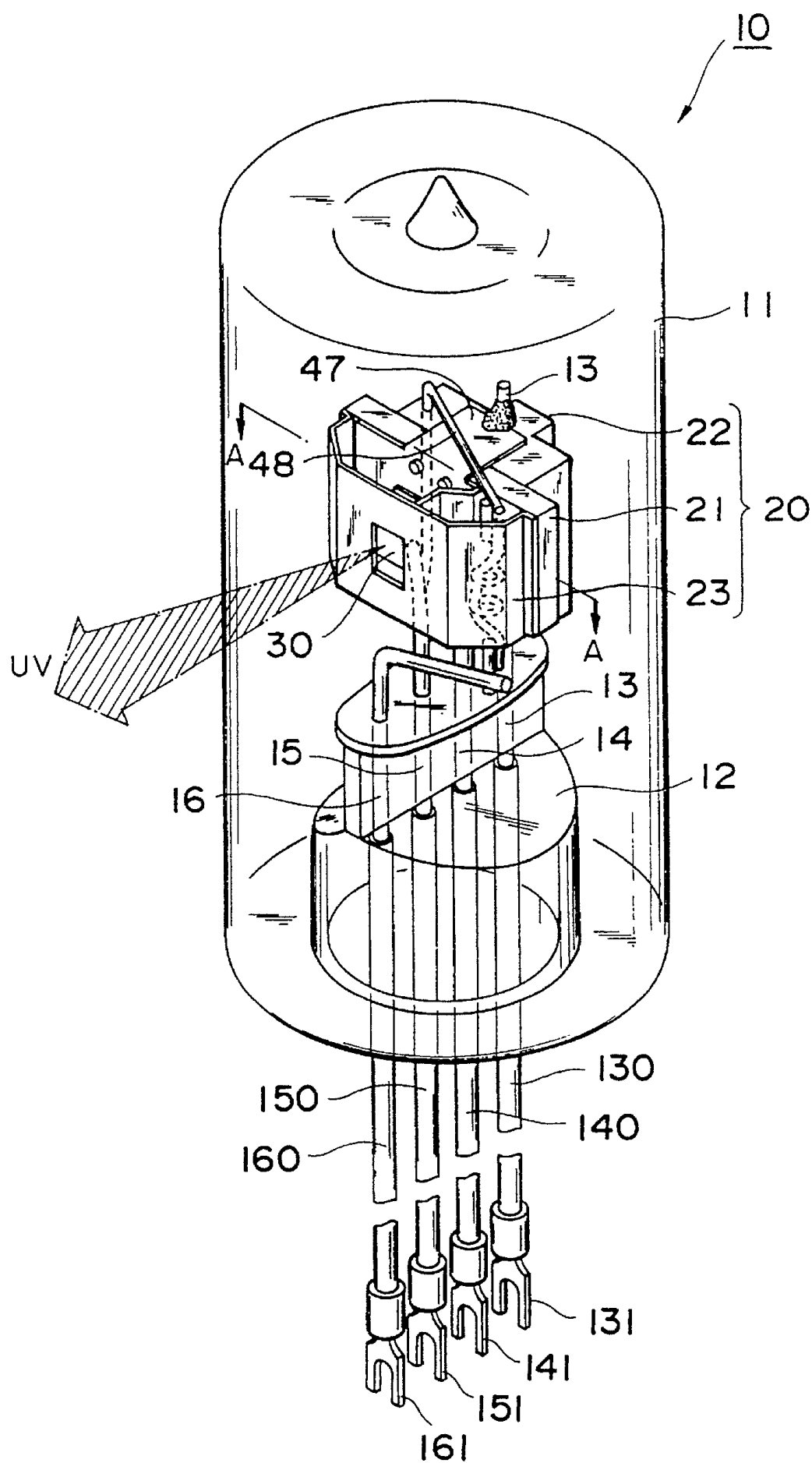
Family 9/15 - FAMPAT - ©Questel

Title

(EP-727811)

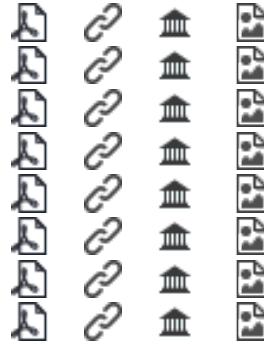
Gas discharge tube

Images

Fig. 1

Publication data including kind & date

EP0727811	A2	1996-08-21	EP-727811
JPH08222185	A	1996-08-30	JP08222185
US5619101	A	1997-04-08	US5619101
EP0727811	A3	1998-03-11	EP-727811
JP3361401	B2	2003-01-07	JP3361401
EP0727811	B1	2003-04-16	EP-727811
DE69627410	D1	2003-05-22	DE69627410
DE69627410	T2	2004-02-12	DE69627410

**Abstract**

(EP-727811)

A gas discharge tube comprises an envelope (11) for sealing a gas, lead pins (13-16) and a light-emitting assembly (20). The light-emitting assembly includes: a focusing electrode support member (21) of a conductive material; a hot cathode (31) for emitting thermoelectrons; an anode (24) for receiving thermoelectrons; a focusing electrode (29) for converging paths of thermoelectrons; a spacer (50) of an insulator being arranged between the focusing electrode support member and the anode; and an anode support member (22) of an insulator for pushing the anode onto the focusing electrode support member through the spacer. A gas discharge tube having a long service life and capable of improving the operational stability during long-time continuous light emission can be provided.

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

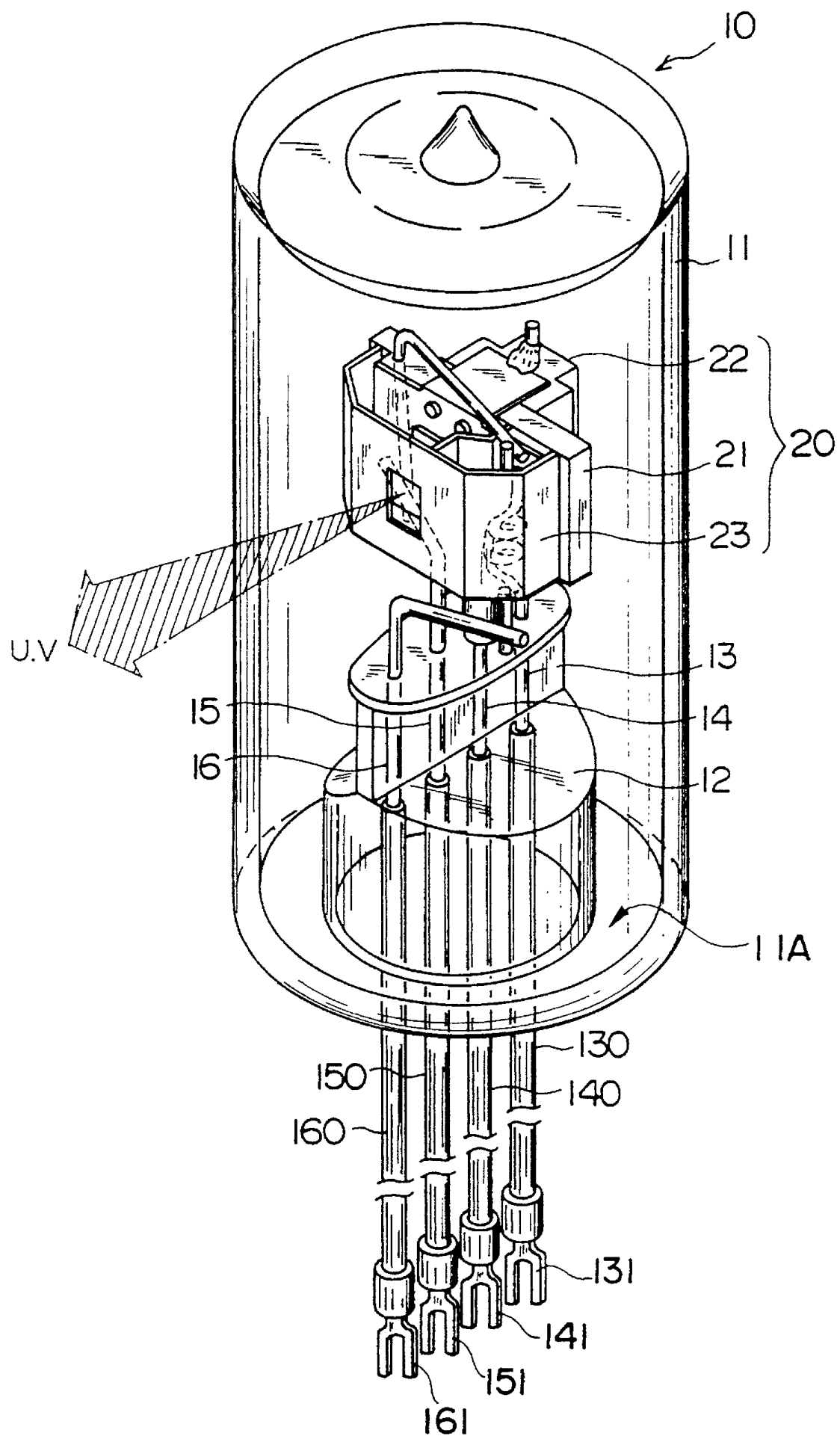
Family 10/15 - FAMPAT - ©Questel

Title

(EP-700073)

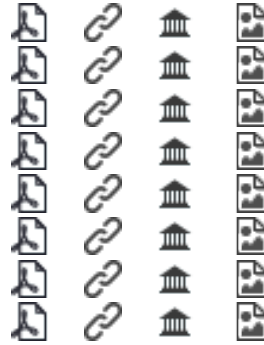
Gas discharge tube

Images

Fig. 1

Publication data including kind & date

EP0700073	A2	1996-03-06	EP-700073
JPH0877969	A	1996-03-22	JP08077969
US5587625	A	1996-12-24	US5587625
EP0700073	A3	1998-02-04	EP-700073
JP2740741	B2	1998-04-15	JP2740741
EP0700073	B1	2002-06-26	EP-700073
DE69527174	D1	2002-08-01	DE69527174
DE69527174	T2	2002-11-07	DE69527174

**Abstract**

(EP-700073)

The present invention is to provide a gas discharge tube having a long service life and capable of an operational stability during long-time continuous light emission. The gas discharge tube includes an envelop for accommodating a hot cathode for emitting thermoelectrons, an anode plate for receiving the thermoelectrons, a focusing electrode having a focusing opening for converging a path of the thermoelectrons, and a discharge shielding member of an insulator having a through hole coaxially arranged with an inner diameter larger than the focusing opening, and a support member having projections efficiently gripping the anode plate with the discharge shielding member so as to increase the heat radiation efficiency of the anode plate. <MATH>

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

Family 11/15 - FAMPAT - ©Questel

Title

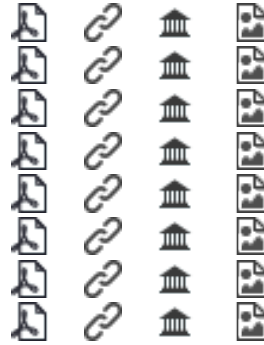
(EP-700071)

Gas discharge tube

Images

Publication data including kind & date

EP0700071	A2	1996-03-06	EP-700071
JPH0877979	A	1996-03-22	JP08077979
EP0700071	A3	1997-05-21	EP-700071
US5633563	A	1997-05-27	US5633563
JP2784148	B2	1998-08-06	JP2784148
EP0700071	B1	2000-07-19	EP-700071
DE69518045	D1	2000-08-24	DE69518045
DE69518045	T2	2001-03-22	DE69518045

**Abstract**

(EP-700071)

A gas discharge tube of the present invention comprises a light-emitting section (2) in an envelope (1) sealing a gas therein, positioned at distal ends of lead pins (4a to 4e) and supported by the lead pins while spaced from an inner side wall of the envelope. The light-emitting section includes a hot cathode (7), an anode (8), a focusing electrode (13), and a discharge shielding member (6) having a front surface which faces to the hot cathode. The front surface of the discharge shielding member is defined by a first surface being in directly contact with the focusing electrode, for defining a position of said focusing electrode, a second surface continued from the first surface, for defining a distance between the focusing electrode and the anode, and a third surface continued from the second surface and being in directly contact with the anode, for defining a position of the anode.

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

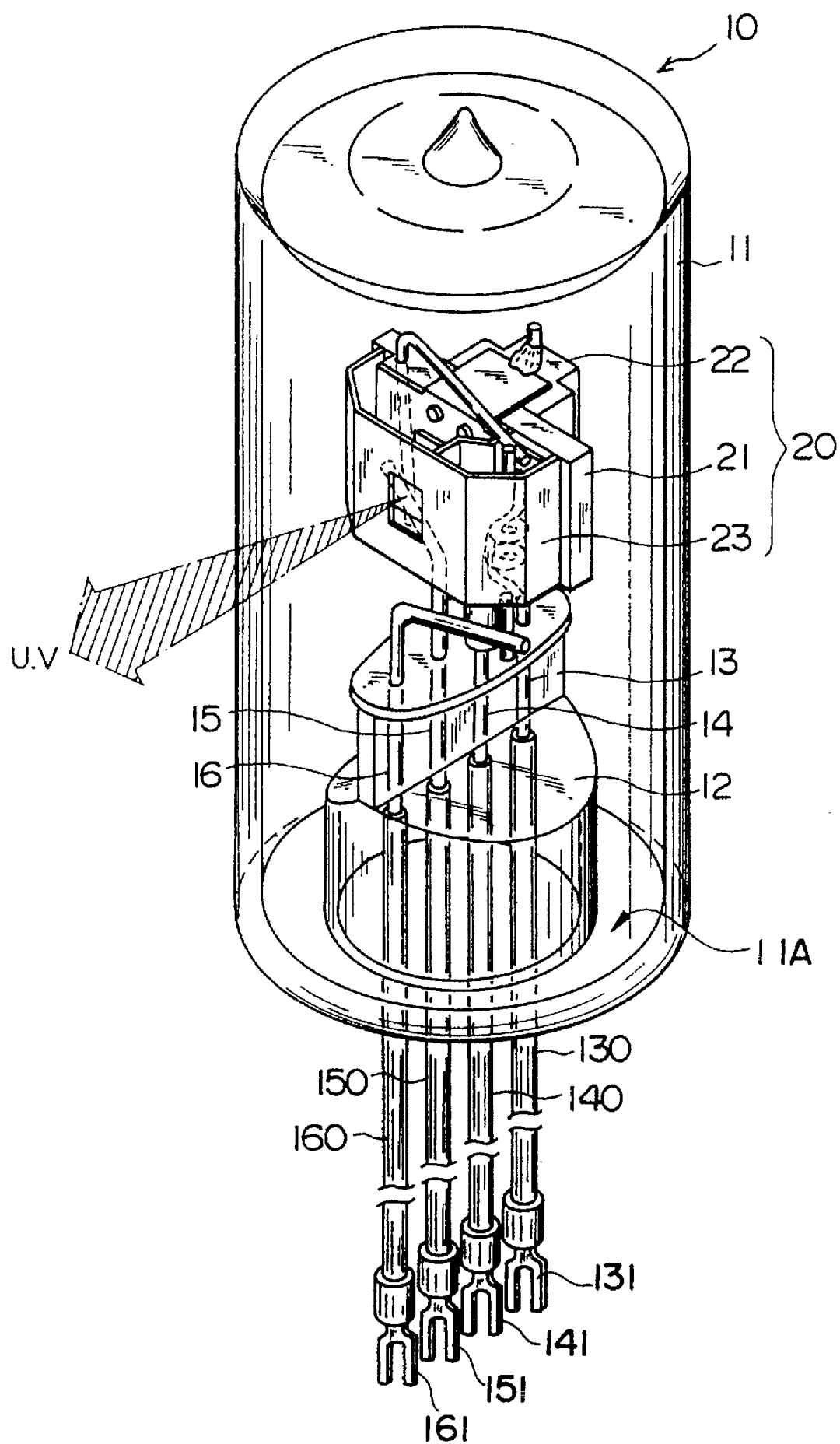
Family 12/15 - FAMPAT - ©Questel

Title

(EP-700072)

Gas discharge tube, lighting device using such a gas discharge tube and a method of operating such a lighting device

Images

Fig. 1

Publication data including kind & date

EP0700072	A2	1996-03-06	EP-700072
JPH0877965	A	1996-03-22	JP08077965
EP0700072	A3	1997-05-21	EP-700072
US5646487	A	1997-07-08	US5646487
JP2769436	B2	1998-06-25	JP2769436
EP0700072	B1	2000-07-12	EP-700072
DE69517891	D1	2000-08-17	DE69517891
DE69517891	T2	2000-12-07	DE69517891

**Abstract**

(EP-700072)

The present invention is to provide a gas discharge tube which is properly lighted to improve the reproducibility of a satisfactory light emission state. The gas discharge tube includes an envelop (11) for accommodating a hot cathode (25) for emitting thermoelectrons, an anode (24) for receiving the thermoelectrons, a focusing electrode (26) having a focusing opening for converging paths of the thermoelectrons, and a discharge shielding member (21) supporting the focusing electrode and the anode, the discharge shielding member further supporting a cathode box for surrounding the hot cathode while electrically insulated from the focusing electrode. And since a lighting device for the gas discharge tube sets the focusing electrode a zero or negative potential while an electric field generated between the hot cathode and the anode, the lighting device will be certainly turn on.

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

HAMAMATSU PHOTONICS

Family 13/15 - FAMPAT - ©Questel

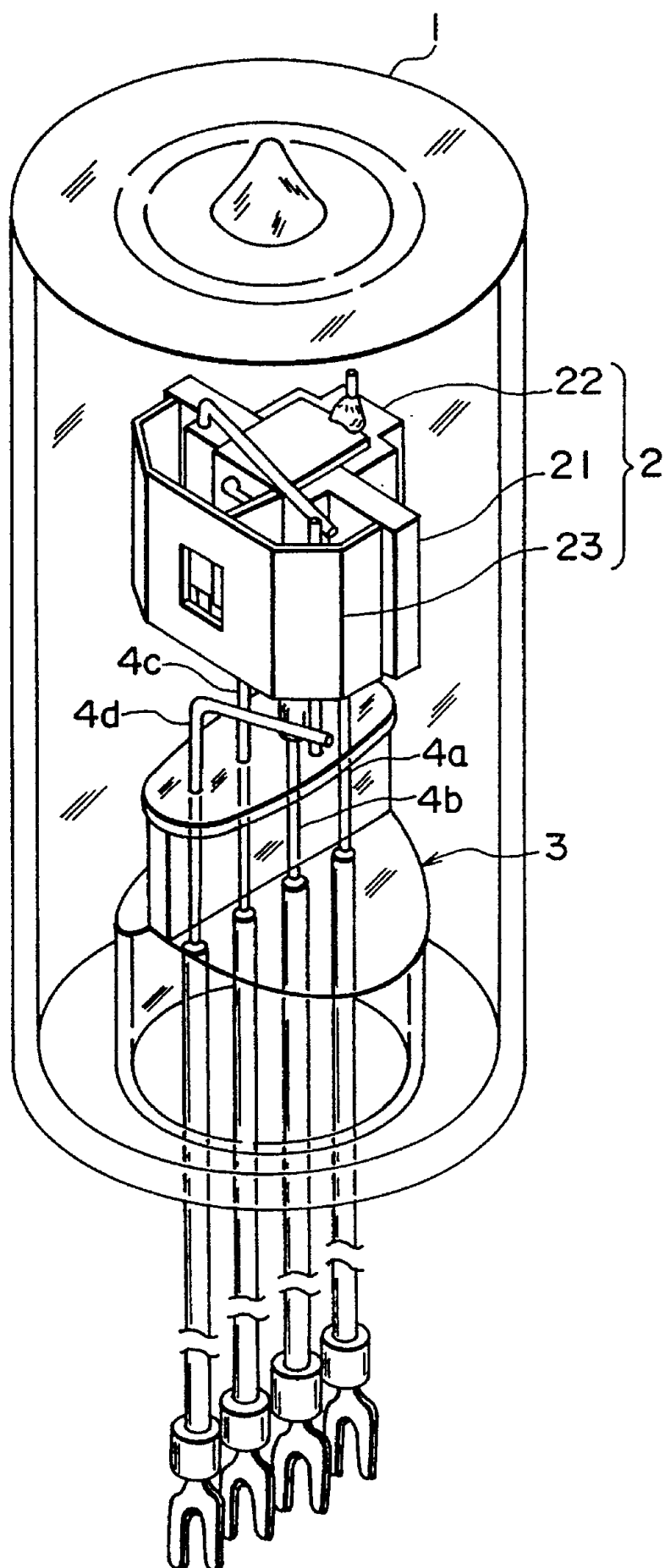
Title

(EP-685874)

Gas discharge tube

Images

Fig. 1



Publication data including kind & date

EP0685874	A1	1995-12-06	EP-685874
JPH07326324	A	1995-12-12	JP07326324
US5552669	A	1996-09-03	US5552669
JP2740738	B2	1998-04-15	JP2740738
EP0685874	B1	1999-01-13	EP-685874
DE69415966	D1	1999-02-25	DE69415966
DE69415966	T2	1999-07-15	DE69415966

**Abstract**

(EP-685874)

A gas discharge tube of the present invention has an envelope for accommodating an anode (24) for receiving thermoelectrons emitted from a thermionic cathode (25), a focusing electrode (26) for focusing a path of the thermoelectrons from the thermionic cathode to the anode, and a discharge shielding plate (21) consisting of a material having electrical insulating properties, the anode being arranged in contact with one end of the discharge plate, and the focusing electrode being arranged in contact with the other end of the discharge shielding plate. Since the anode and the focusing electrode are arranged in contact with both the sides of the discharge shielding plate consisting of an insulating material such as a ceramic, the positions of these electrodes are held at high accuracy, and the electrical insulating properties therebetween are maintained even at a high temperature during long-time continuous light emission. For this reason, a short circuit between the electrodes and variations in length of a discharge path can be prevented. Therefore, a gas discharge tube having a long service life and a high operational stability during long-time continuous light emission can be provided. <IMAGE>

Inventors

IKEDO TOMOYUKI

ITO YOSHINOBU

MATUI RYOTARO

Latest standardized assignees - inventors removed

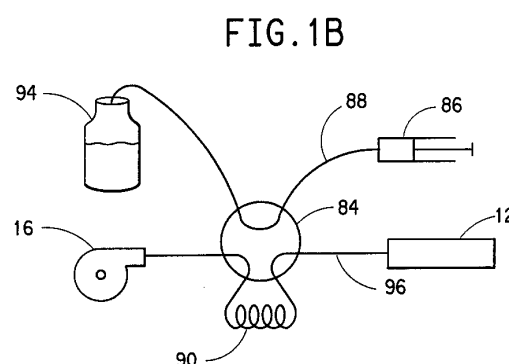
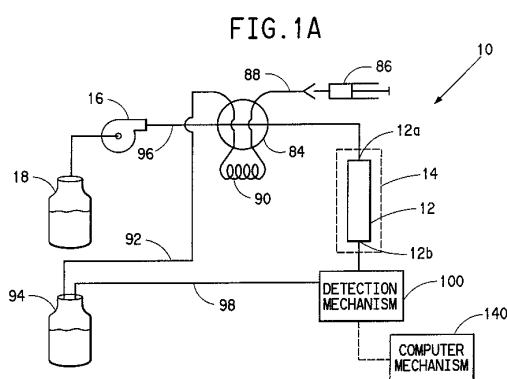
HAMAMATSU PHOTONICS

Family 14/15 - FAMPAT - ©Questel

Title

(EP-600213)

Field portable liquid chromatographic system.

Images**Publication data including kind & date**

EP0600213	A1	1994-06-08	EP-600213
---------------------------	----	------------	-----------

**Abstract**

(EP-600213)

A liquid chromatographic system is portable for allowing on-site detection of analytes in a sample of liquid. The system

comprises a high pressure pump for introducing a carrier fluid into a chromatographic column. A detection mechanism including a deuterium lamp is disposed in alignment with the outlet of the column for measuring the properties of the organic analytes in the sample while maintaining their chemical identity. The system provides high-speed separation and can be powered from a low energy-consuming power source. <IMAGE> <IMAGE>

Inventors

JOHNSON DAVID MICHAEL

STEENHOEK LARRY EUGENE

Latest standardized assignees - inventors removed

DU PONT DE NEMOURS

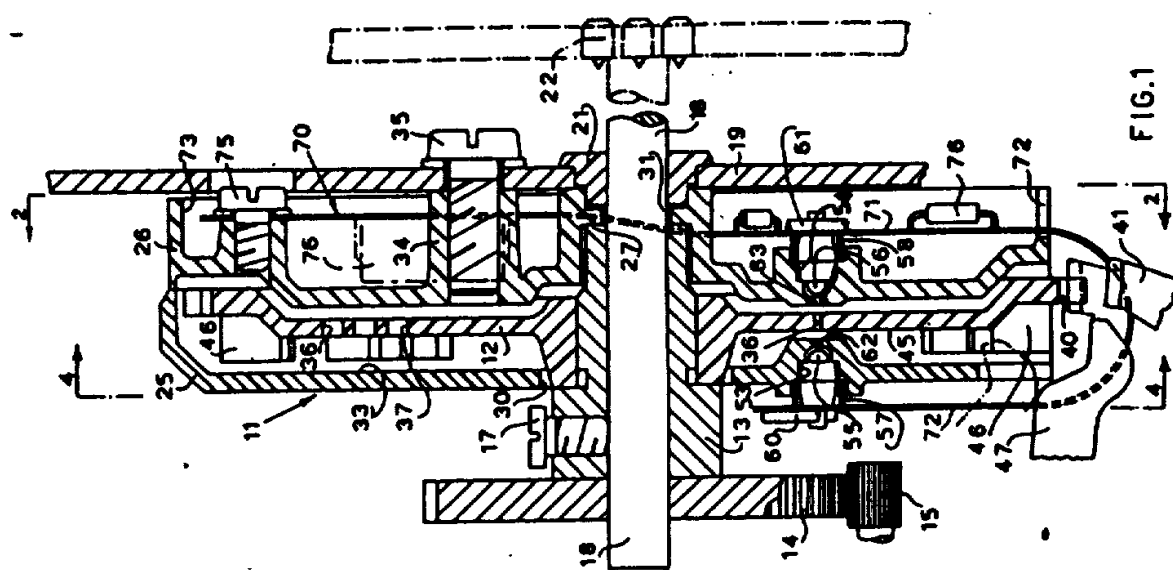
Family 15/15 - FAMPAT - ©Questel

Title

(EP--60021)

Optical transducer

Images



Publication data including kind & date

IT8167218	D0	1981-02-17	IT8167218
EP0060021	A2	1982-09-15	EP--60021
JPS57151816	A	1982-09-20	JP57151816
BR8200832	A	1982-12-28	BR8200832
MX151102	A	1984-09-28	MX-151102
EP0060021	A3	1984-11-21	EP--60021
IT1143507	B	1986-10-22	IT1143507



Abstract

(EP--60021)

An optical transducer for indicating the angular position of a rotating body with respect to a fixed structure comprising a housing 25, 26 of plastics material inside which a rigid disc 12 is rotatably mounted, this disc being connected to the rotating body and being provided with radial slots 36 arranged in two concentric annular tracks. At a position corresponding to the slots in the disc, the outer walls of the housing have seats 53, 54 provided in them during the moulding operation and these receive, in a detachable manner, a series of light sources 54 provided on one side, and on other side a corresponding series of light detector devices 56. In order to provide light beams which are orthogonal to the plane of the disc, windows 62, 63 having dimensions which are substantially equal to those of the radial slots 36 in the disc are formed in the housing at positions corresponding to those of the light sources and light detector devices. The periphery of the disc is furthermore provided with teeth 40 which partially extend outside the housing, a positioning mechanism 41 for the rotating body being adapted to cooperate with the teeth.

Inventors

MICHELETTI CREMASCO, VENANZIO

Latest standardized assignees - inventors removed

OLIVETTI