



Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number:

0 025 688
A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 80303161.6

(51) Int. Cl.³: H 05 G 1/46, H 05 G 1/56

(22) Date of filing: 09.09.80

(30) Priority: 13.09.79 US 75187

(71) Applicant: PFIZER INC., 235 East 42ND Street, New York, N.Y. 10017 (US)

(43) Date of publication of application: 25.03.81
Bulletin 81/12

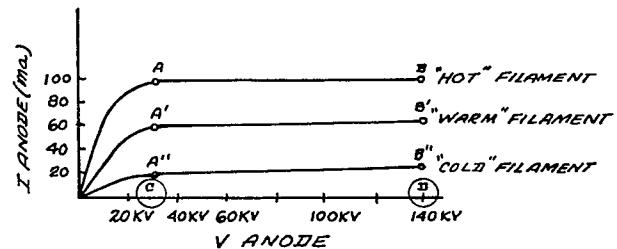
(72) Inventor: Bax, Ronald Frank, 5592 Eaglebeak Row, Columbia Maryland (US)

(84) Designated Contracting States: BE CH DE FR GB IT LI
LU NL SE

(74) Representative: Pennant, Pyers et al, Stevens, Hewlett & Perkins 5 Quality Court Chancery Lane, London, WC2A 1HZ (GB)

(54) Apparatus for controlling X-ray tube emissions and X-ray source.

(57) An apparatus for rapidly achieving stabilized x-ray emissions from an x-ray tube is disclosed. The essentially constant current characteristics of an x-ray tube are utilized so as to initially establish relatively low voltage (C) but approximately full current (A) operating condition in the x-ray tube during an initial tube preparation time period. Any relatively low energy x-rays emitted during this initial period are of little concern since they are readily absorbed by the usual beam hardening materials placed in the x-ray path. Once the x-ray tube has been stabilized at such relatively low energy output, the operating voltage may thereafter be very rapidly raised to normal operating levels (D) while permitting concurrent rapid stabilization of the relatively small corresponding further required increase in x-ray tube current (B) which, in turn, provides for rapid stabilization of the useful high energy x-ray tube emissions.



EP 0 025 688 A3



EUROPEAN SEARCH REPORT

0025688
Application Number
EP 80 30 3161

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	TECHNICAL FIELDS SEARCHED (Int. Cl.3)
	<p><u>DE - A - 1 639 397</u> (SIEMENS A.G.)</p> <p>* Page 1, lines 1-16; page 2, lines 18-32; page 7, lines 21-24 *</p> <p>--</p> <p><u>DE - B - 1 062 831</u> (SIEMENS-REINIGER-WERKE AKTIENGESELLSCHAFT)</p> <p>* Column 1, lines 1-9, 27-53 *</p> <p>--</p> <p><u>FR - A - 2 389 294</u> (N.V. PHILIPS' GLOEILAMPENFABRIEKEN)</p> <p>* Page 1, lines 1-20; page 2, line 21 - page 3, line 2; page 6, lines 10-14; page 12, lines 31-34 *</p> <p>& <u>US - A - 4 208 584</u></p> <p>--</p> <p><u>US - A - 4 195 229</u> (TOKYO SHIBAURA ELECTRIC CO.)</p> <p>* Abstract; column 6, lines 31-52 *</p> <p>--</p> <p><u>US - A - 3 636 355</u> (CGR MEDICAL CORP.)</p> <p>* Abstract; column 1, lines 46-60; column 4, line 74 - column 6, line 15 *</p> <p>--</p> <p><u>GB - A - 2 005 878</u> (DEN-TAL-EZ MFG. CO.)</p> <p>* Page 1, lines 5-23, 79-96 *</p> <p>--</p>	1-5, 7	H 05 G 1/46 1/56
		1, 6	H 05 G 1/46 1/56 1/32 1/34 1/60 1/30
		7, 8	
		1	CATEGORY OF CITED DOCUMENTS
A, P		1, 7	<p>X: particularly relevant</p> <p>A: technological background</p> <p>O: non-written disclosure</p> <p>P: intermediate document</p> <p>T: theory or principle underlying the invention</p> <p>E: conflicting application</p> <p>D: document cited in the application</p> <p>L: citation for other reasons</p>
	The present search report has been drawn up for all claims		&: member of the same patent family, corresponding document
Place of search	Date of completion of the search	Examiner	
The Hague	04-03-1981	HORAK	





DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<p>US - A - 4 072 865 (AMERICAN RADIO- 1,7 LOGIC SYSTEMS, INC.)</p> <p>* Abstract; column 1, line 49 - column 2, line 28 *</p> <p>-----</p>		
			TECHNICAL FIELDS SEARCHED (Int. Cl. 3)