

Title (en)
X-ray generating system.

Title (de)
Röntgenstrahlenerzeugungssystem.

Title (fr)
Système générateur de rayons X.

Publication
EP 0624052 A1 19941109 (EN)

Application
EP 94303246 A 19940505

Priority
JP 10668893 A 19930507

Abstract (en)
An X-ray generating system including an X-ray tube for generating X-rays and a tube voltage setting unit for setting a tube voltage applied to the X-ray tube. The system further includes an irradiation time setting unit for setting an irradiation time of the X-rays by the X-ray tube, a high voltage generating unit for supplying the tube voltage to the X-ray tube to cause the X-ray tube to generate the X-rays based on the tube voltage, and an irradiation control unit connected to the tube voltage setting unit and the irradiation time setting unit. The irradiation control unit compares the irradiation time with a maximum irradiation time determined by the tube voltage, divides the irradiation time into a plurality of divided irradiation times each being equal to or smaller than the maximum irradiation time when the irradiation time is larger than the maximum irradiation time, calculates a plurality of cooling times for the X-ray tube between the divided irradiation times and after a final one of the divided irradiation times when the irradiation time is larger than the maximum irradiation time, and controls the high voltage generating unit to cause the X-ray tube to generate the X-rays for one of divided irradiation times, respectively, and to cause the X-ray tube to suspend irradiation of the X-rays for one of cooling times, respectively. <IMAGE>

IPC 1-7
H05G 1/26; **H05G 1/36**; **H05G 1/54**

IPC 8 full level
H05G 1/38 (2006.01); **H05G 1/26** (2006.01); **H05G 1/36** (2006.01); **H05G 1/54** (2006.01)

CPC (source: EP)
H05G 1/26 (2013.01); **H05G 1/36** (2013.01); **H05G 1/54** (2013.01)

Citation (search report)
• [A] GB 1498824 A 19780125 - PHILIPS ELECTRONIC ASSOCIATED
• [A] US 4386320 A 19830531 - LAFRANCE ROBERT R [CA]
• [A] US 4819259 A 19890404 - TANAKA SHIGERU [JP]
• [A] EP 0022295 A1 19810114 - PHILIPS PATENTVERWALTUNG [DE], et al
• [A] US 3961173 A 19760601 - PERRY JOHN T, et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 5, no. 82 (E - 59)<754> 29 May 1981 (1981-05-29)

Cited by
CN100355324C; CN113056077A; FR2857818A1

Designated contracting state (EPC)
BE DE DK

DOCDB simple family (publication)
EP 0624052 A1 19941109; **EP 0624052 B1 19990714**; DE 69419454 D1 19990819; DE 69419454 T2 20000615; DK 0624052 T3 20000124; JP H06318500 A 19941115

DOCDB simple family (application)
EP 94303246 A 19940505; DE 69419454 T 19940505; DK 94303246 T 19940505; JP 10668893 A 19930507