

**ABSTRACT****Compact source for generating ionizing radiation, assembly comprising a plurality of sources and process for producing the source**

The invention relates to a source for generating ionizing radiation and in particular x-rays, to an assembly comprising a plurality of sources and to a process for producing the source. The source comprises:

- a vacuum chamber (12);
  - 5   • a cathode (14) that is able to emit an electron beam (18) into the chamber (12);
  - an anode (16) that receives the electron beam and that comprises a target (20) that is able to generate ionizing radiation (22) from the energy received from the electron beam (18);
  - 10   • an electrode (24) that is placed in the vicinity of the cathode (14) and that allows the electron beam (18) to be focused;
  - a stopper (32) ensuring the seal tightness of the vacuum chamber (12); and
  - a mechanical part (28) that is made of dielectric and that forms a portion
  - 15   of the vacuum chamber; and
- the stopper (32) is fastened to the mechanical part (28) by means of a conductive brazing film (42) that is used to electrically connect the electrode (24).

20                   Figure 1.