

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 that is able to emit an electron beam (18) into the vacuum chamber (12), the electron beam (18) developing about an axis (19); and
 - an anode (76) that receives the electron beam (18) and that comprises a target (20) that is able to generate ionizing radiation (22) from the energy received from the electron beam (18); the ionizing radiation (22) being
 - 10 generated toward the exterior of the vacuum chamber (12);
- the anode (76) comprises a cavity (80) into which the electron beam (18) is intended to penetrate to reach the target (20) and the walls (88, 90) of the cavity (80) form a Faraday cage blocking parasitic ions (91) that may be emitted by the target (20) into the interior of the vacuum chamber (12); and at
- 15 least one getter (92) that is separate from the walls (88, 90) of the cavity (80) and that is intended to trap the parasitic ions (91) is placed in the cavity (80).

Figure 4a