

Title (en)
QUARTZ GLASS COMPONENT FOR A UV RADIATION SOURCE AND METHOD FOR PRODUCING AND TESTING THE APTITUDE OF SUCH A QUARTZ GLASS COMPONENT

Title (de)
BAUTEIL AUS QUARZGLAS FÜR EINE UV-STRAHLENQUELLE SOWIE VERFAHREN FÜR DIE HERSTELLUNG UND FÜR DIE EIGNUNGSDIAGNOSE EINES DERARTIGEN QUARZGLAS-BAUTEILS

Title (fr)
COMPOSANT EN VERRE DE QUARTZ DESTINE A UNE SOURCE DE RAYONS ULTRAVIOLETS ET PROCEDE DE PRODUCTION ET DE TEST D'APTITUDE DE CE COMPOSANT EN VERRE DE QUARTZ

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Application
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Abstract (en)
[origin: WO2005102950A2] A conventional method for producing a quartz glass component for a UV radiation source includes melting SiO₂ containing grains. The aim of the invention is to provide an improved and inexpensive method which allows for the production of a quartz glass component that is characterized by high radiation resistance. For this purpose, synthetically produced quartz crystals are smelted to give an initial product that consists of quartz glass, and contains hydroxyl groups in a number greater than the number of SiH groups. In order to remove the SiH groups, the initial product is subjected to a tempering step at a temperature of at least 850 DEG C, thereby obtaining the quartz glass component. The inventive quartz glass component is characterized in that the quartz glass is smelted from synthetically produced quartz crystals and has an SiH group content of less than 5×10^{17} molecules/cm³.

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