

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

Publication

EP 1735250 A2 20061227 (DE)

Application

EP 05732180 A 20050405

Priority

- EP 2005003549 W 20050405
- DE 102004018887 A 20040415

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.

IPC 8 full level

C03C 3/06 (2006.01); **C03B 19/01** (2006.01); **C03B 19/14** (2006.01); **C03B 32/00** (2006.01); **C03C 4/00** (2006.01); **H01J 61/30** (2006.01)

CPC (source: EP US)

C03B 19/01 (2013.01 - EP US); **C03B 19/1453** (2013.01 - EP US); **C03B 32/00** (2013.01 - EP US); **C03C 3/06** (2013.01 - EP US); **C03B 2201/03** (2013.01 - EP US); **C03B 2201/04** (2013.01 - EP US); **C03B 2201/07** (2013.01 - EP US); **C03B 2201/23** (2013.01 - EP US)

Citation (search report)

See references of WO 2005102950A2

Designated contracting state (EPC)

AT DE FR GB NL

DOCDB simple family (publication)

WO 2005102950 A2 20051103; **WO 2005102950 A3 20060302**; CN 1968903 A 20070523; DE 102004018887 A1 20051110; DE 102004018887 B4 20090416; EP 1735250 A2 20061227; JP 2007532459 A 20071115; US 2007272685 A1 20071129

DOCDB simple family (application)

EP 2005003549 W 20050405; CN 200580019852 A 20050405; DE 102004018887 A 20040415; EP 05732180 A 20050405; JP 2007507696 A 20050405; US 57839305 A 20050405