

Title (en)  
INFRARED-SURFACE IRRADIATOR

Publication  
**EP 0465766 B1 19930210 (DE)**

Application  
**EP 91103910 A 19910314**

Priority  
DE 4022100 A 19900711

Abstract (en)  
[origin: EP0465766A1] The invention relates to a surface irradiator for short infrared irradiations with high irradiation efficiency per surface unit, with a housing (1) and with one or more heating coils (9), with at least two current connections (4), the heating coils (9) being distributed to a very great extent uniformly behind the irradiation surface (16) of the housing (1) in its interior (5), the heating coils (9) being guided and held in receiving members by means of distance pieces (8), the parts of the receiving members being transparent towards the irradiation surface (16) for the infrared irradiation, the heating coils (9) being assigned on their side lying opposite the irradiation surface (16) a reflector (11) and the housing (1) having at least one supply and removal connection (2, 3) for a cooling medium which cools the irradiator as it passes through. In order, by means of a simple compact construction, to increase the economy and operational reliability of the high-performance infrared irradiator, in particular with regard to the heat generation occurring and the associated cooling measures, and to extend its area of application with regard to the tolerable temperature and external pressure conditions, the interior (5) of the housing (1), which is delimited by the irradiation surface (16) on one side, is closed off and has the supply connection (2) and the removal connection (3), and the cooling medium is an inert gas which flows through the interior (5) and flows around the heating coils (9), and the at least two current connections (4) are guided in a vacuum-tight manner through the wall delimiting the interior (5). <IMAGE>

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Cited by  
EP0985768A1; CN114885450A; CN100445678C; RU2664559C1; EP0563448A3; US5444813A; EP0881858A3; CN114126101A; US2023413391A1; WO9401982A1; WO2004042141A1; WO2022112306A1

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