

Title (en)
DEFORMATION MEASUREMENT SENSOR OPERATING IN A HOSTILE ENVIRONMENT AND INCLUDING AN INTEGRATED OPTICAL MOVEMENT MEASUREMENT MODULE, AND A MEASUREMENT SYSTEM USING SAID SENSOR

Title (de)
SENSOR FÜR VERFORMUNGSMESSUNG MIT BETRIEB IN EINER AGGRESSIVEN UMGEBUNG MIT INTEGRIERTEM OPTISCHEM BEWEGUNGSMESSMODUL UND MESSSYSTEM MIT DIESEM SENSOR

Title (fr)
CAPTEUR DE MESURE DE DEFORMATION, FONCTIONNANT EN MILIEU HOSTILE, INTEGRANT UN MODULE OPTIQUE DE MESURE DE DEPLACEMENT, ET SYSTEME DE MESURE UTILISANT LE CAPTEUR

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Application
EP 12748009 A 20120809

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Abstract (en)
[origin: WO2013023976A1] The invention relates to a deformation measurement sensor operating in a hostile environment and including an integrated optical movement measurement module, and to a measurement system using said sensor. The sensor (2) includes: an enclosure (12) comprising an opening (14); a movable element (16) having a first surface (22) that is brought into contact with an object (4) that can deform, for example a nuclear fuel rod, and a second surface (24) that is reflective and extends into the enclosure through the above-mentioned opening; a sealed, resilient connecting component (18) performing a return function between the element and the enclosure; and, inside the enclosure, a module (20) for creating an interference light (36) using a light (30) reflected by the second surface of the element. According to the invention, deformation of the object results in a modification to the interference light that is representative of the deformation.

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Citation (search report)
See references of WO 2013023976A1

Citation (examination)
• US 6697162 B1 20040224 - SAKAI HISAYOSHI [JP], et al
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• DE 4124755 A1 19930128 - ESD GMBH SICHERHEITS UND DICHT [DE]
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• ANONYMOUS: "Pressurisation - Wikipédia", 20 December 2016 (2016-12-20), XP055396572, Retrieved from the Internet <URL:https://fr.wikipedia.org/wiki/Pressurisation> [retrieved on 20170807]

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