

Title (en)
MONOLITHIC FBAR-CMOS STRUCTURE SUCH AS FOR MASS SENSING

Title (de)
MONOLITHISCHE FBAR-CMOS-STRUKTUR, Z. B. FÜR MASSENERFASSUNGEN

Title (fr)
STRUCTURE FBAR-CMOS MONOLITHIQUE TELLE QUE POUR UNE DÉTECTION DE MASSE

Publication
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Application
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Abstract (en)
[origin: WO2010127122A1] An apparatus comprises a thin-film bulk acoustic resonator such as including an acoustic mirror, a piezoelectric region acoustically coupled to the acoustic mirror, and first and second conductors electrically coupled to the piezoelectric region. In an example, an integrated circuit substrate can include an interface circuit connected to the first and second conductors of the resonator, the integrated circuit substrate configured to mechanically support the resonator. An example can include an array of such resonators co-integrated with the interface circuit and configured to detect a mass change associated with one or more of a specified protein binding, a specified antibody-antigen coupling, a specified hybridization of a DNA oligomer, or an adsorption of specified gas molecules.

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H10N 80/00 (2023.01)

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Citation (search report)
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• [X] US 2006202779 A1 20060914 - FAZZIO R S [US], et al
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• [X] BREDERLOW R ET AL: "Biochemical sensors based on bulk acoustic wave resonators", INTERNATIONAL ELECTRON DEVICES MEETING 2003. IEDM. TECHNICAL DIGEST. WASHINGTON, DC, DEC 8 - 10, 2003; [INTERNATIONAL ELECTRON DEVICES MEETING], NEW YORK, NY : IEEE, US, 8 December 2003 (2003-12-08), pages 992 - 994, XP010684243, ISBN: 978-0-7803-7872-8
• See also references of WO 2010127122A1

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