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(54) **REFRACTIVE INDEX SENSOR DEVICE**

BRECHUNGSINDEX-SENSORVORRICHTUNG

DISPOSITIF DE CAPTEUR D'INDICE DE RÉFRACTION

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(56) References cited:
WO-A1-2009/112288

• **AUGEL L ET AL: "An Integrated Plasmonic Refractive Index Sensor: Al nanohole arrays on Ge PIN photodiodes", 2017 IEEE INTERNATIONAL ELECTRON DEVICES MEETING (IEDM), IEEE, 2 December 2017 (2017-12-02), XP033306110, DOI: 10.1109/IEDM.2017.8268528**
• **AUGEL L ET AL: "Integrated collinear refractive index sensor with Ge PIN photodiodes", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 4 February 2019 (2019-02-04), XP081024935, DOI: 10.1021/ACSPHOTONICS.8B01067**

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