



PATENTED TECHNOLOGIES AT OAKLAND UNIVERSITY--2013

Sheet metal stretch-bend-draw simulator apparatus and method (Lorenzo Smith, Patent No. 8,511,172) August 20, 2013

Lay summary: The objective of this simulator is to allow the experimental evaluation of forces associated with pulling off sheet metal strips over a rigid tool, and for further understanding the mechanisms triggering surface distortions in sheet metal products. The stretch-bend-draw bead simulator (SBDS) apparatus can be used to evaluate a proposed draw bead design/geometry before it is implemented in a continuous manufacturing process.

Method of Wafer-Level Fabrication of MEMS Devices (Hongwei Qu, Patent No. 8,445,324) May 21, 2013

Lay summary: This invention relates to wafer-level microfabrication methods for micro-electromechanical systems (MEMS) devices. The method can be applied to the fabrication of complementary metal oxide semi-conductor (CMOS) -MEMS sensors and actuators, where electrical isolation of MEMS structures and conditioning circuitry is needed. The method overcomes drawbacks of other microfabrication processes, including isolation trench sidewall contamination.

Ionic Liquid Thin Layer Sensor for Electrochemical and/or Piezoelectric Measurements (Xiangqun Zeng, Patent No. 8,375,768) February 19, 2013

Lay summary: This sensor can detect environmental gases, such as explosive vapors. The technology has the advantage of combining two different methods (electrochemical and piezoelectric) in a single sensor, which can be used in quantitative and qualitative detection systems.