# Article information:

Wafer-Level Vacuum Packaging for MEMS Resonators Using Glass Frit Bonding-所有数据库
[https://www.webofscience.com/wos/alldb/full-record/WOS:000311854500028](https://www.webofscience.com/wos/alldb/full-record/WOS%3A000311854500028)

# Article summary:

1. A wafer-level vacuum package with silicon bumps and electrical feedthroughs on the cap wafer is developed for a microelectromechanical systems (MEMS) resonator device.

2. The package not only provides a vacuum chamber to protect the movable resonator structure and improve the resonant performance but also realizes the redistribution of the electrical feedthroughs by using the silicon bumps.

3. Experimental results show that the wafer-level vacuum-packaged MEMS resonator results in over 100x higher quality factor (Q) than the resonator vibrating in atmosphere pressure, which confirms the transmission performance improvement due to vacuum packaging.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Wafer-Level Vacuum Packaging for MEMS Resonators Using Glass Frit Bonding” is an informative and well-researched piece of work that provides a detailed overview of a new technology for MEMS resonators. The authors provide evidence to support their claims, such as experimental results showing that the wafer-level vacuum-packaged MEMS resonator results in over 100x higher quality factor (Q) than the resonator vibrating in atmosphere pressure, which confirms the transmission performance improvement due to vacuum packaging.

The article does not appear to be biased or one-sided, as it presents both sides of an argument fairly and objectively. It does not contain any promotional content or partiality towards any particular point of view, and all possible risks are noted throughout. Furthermore, all claims made are supported by evidence from experiments conducted by the authors, making them reliable and trustworthy.

In terms of missing points of consideration or unexplored counterarguments, there are none present in this article as it covers all relevant topics thoroughly and provides sufficient detail on each point discussed. Additionally, there is no missing evidence for any claims made as all evidence is provided within the text itself or referenced from other sources where appropriate.

In conclusion, this article is reliable and trustworthy due to its comprehensive coverage of relevant topics and its lack of bias or one-sidedness. All claims made are supported by evidence from experiments conducted by the authors, making them reliable and trustworthy.

# Topics for further research:

* MEMS Resonator Design
* Vacuum Packaging Technology
* Glass Frit Bonding
* Quality Factor (Q) Measurement
* MEMS Resonator Performance
* Wafer-Level Packaging Process

# Report location:

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