

RADIOISOTOPE MICORBATTERY BASED ON LIQUID SEMICONDUCTORS

The solid state semiconductors in state of the art betavoltaic micro batteries result in poor coupling between the rectified junction and the semiconductor junction and degradation of the conversion device, which has been the major challenge of commercializing betavoltaic micro batteries. This invention reports a novel technique using liquid semiconductors for a microbattery based on MEMS technology. The specially designed microbattery is provided with high efficiency and a long life time.

POTENTIAL AREAS OF APPLICATIONS:

- Any field that requires a reliable small power source with a long life
- Particularly well suited for powering sensors in inaccessible environments
- Micro electro mechanical systems (MEMS) such as:
 - Thermal, magnetic and optical sensors and actuators
 - Micro chemical analysis systems
 - Wireless communication systems
 - Biomedical devices
 - Normal and extreme environments

PATENT STATUS: Non provisional patent application on file

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