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**Development of Radioisotope Micropower Sources.**

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Microelectromechanical systems (MEMS) are considered to be one of the discriminating technologies of the 21st century. In order to take full advantage of the MEMS revolution, the power sources for these electromechanical systems must follow a similar trend of increased functionality at decreased size. Because of their high energy density, radioactive micropower sources are an alternative to next generation battery and fuel cell technologies for applications where volume is at a premium. This presentation will focus on our development of liquid-semiconductor nuclear batteries as compact power supplies for MEMS.