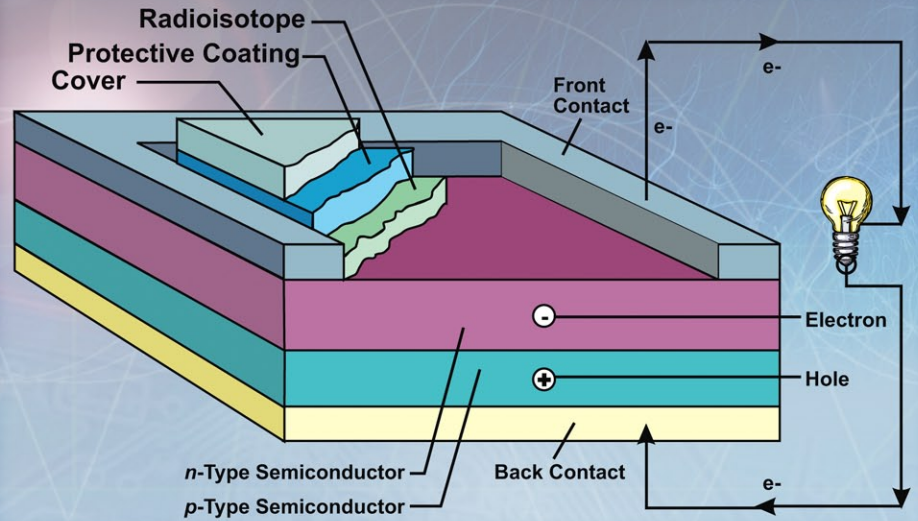


Compact Nuclear Battery™ (CNB) Utilizes Wideband Gap Materials

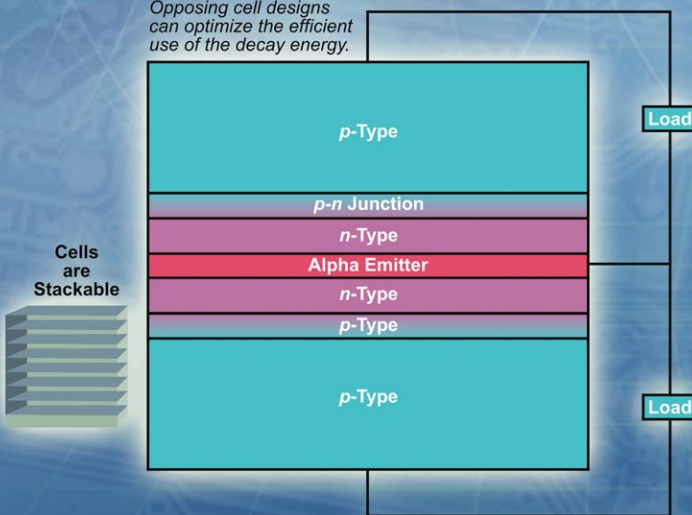
Featuring:

- > High energy density capability
- > Radiation damage resistance
- > Long, engineered lifetimes
- > High efficiency

Basic CNB Structure



Opposing cell designs can optimize the efficient use of the decay energy.



The flexibility of the radiation-resistant Compact Nuclear Battery* allows for different configurations that can be tested for optimum performance.

*patent pending

Cell Characteristics

Noble gas excimer fluorecscers will generally produce very narrowband UV photons in the range from about 7 eV to 14 eV, depending on the exact excimers employed. Since 1 photon yields 1 electron, wideband gap materials will more effectively utilize the photon energy by producing essentially the same current at higher voltages.

Traditional Materials:

Si: ~0.7V

Wideband Gap Materials:

Silicon Carbide: ~1.68V

Gallium Nitride: ~1.92V

Diamond: ~3.24V

Aluminum Nitride: ~3.72V