

## Kansas Sesquicentennial 2011



**JOSEPH W. KENNEDY**  
CHEMISTRY

*Photo courtesy of Dept. of Chemistry  
Washington University in St. Louis*



### Joseph W. Kennedy 1916-1957

- Received masters degree in chemistry from the University of Kansas in 1937.
- In 1941 he, along with colleagues Glenn Seaborg, Edwin McMillan and Arthur Wahl, co-discovered the chemical element plutonium.
- In 1943, not yet 27 years old, he was one of the first recruits to Project Y, the effort to develop an atomic bomb.
- Today plutonium is used at nuclear power plants to produce electricity for homes. It is also used to provide power on the Cassini, Voyager and New Horizons space probes.

**EXTRA COOL:** Awarded Medal of Merit by President Harry Truman in 1946. A lecture series is named in his honor at Washington University in St. Louis where he taught for many years.

Ad Astra Kansas Initiative Project [www.adastra-ks.org](http://www.adastra-ks.org)

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*Photo courtesy of Koch Industries*

**FRED C. KOCH**  
CHEMICAL ENGINEERING  
Koch Industries, Wichita



### Fred C. Koch 1900-1967

- Joined a Wichita engineering firm in 1925. It was renamed Winkler-Koch Engineering Company. In 1927 he developed an improved method to turn heavy oil into gasoline. He designed and helped build refineries in Kansas including Wichita, McPherson and Eldorado.
- Larger oil companies, afraid of competition from this new process, forced him out of business in the U.S. for several years. Ever resilient, Koch built units in other countries.
- By the 1940s, Koch co-owned his own refining company in the U.S. and established Koch Engineering in Wichita in 1945.
- Today Koch Industries includes refining, chemicals, chemical processing equipment, consumer and building products, polymers and fibers, fertilizers, ranching and other businesses.

**EXTRA COOL:** The headquarters for Koch Industries is in Wichita. The company has a presence in nearly 60 countries.

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### Karma MASON current

- Attended Price Elementary, Coleman Jr. High and Southeast High in Wichita.
- Earned geology degree from Wichita State University.
- Uses naturally-occurring microbes (good bacteria) to clean harmful chemicals or other materials from groundwater, surface water and soils.
- Appointed by the governor to the Kansas Water Authority, a panel which advises on the best use of Kansas water resources.
- Owns and is president of iSi Environmental Services.

**EXTRA COOL:** Inherited a rock collection from her father and has added rocks from all over the world including Saudi Arabia, Aruba and Uruguay.

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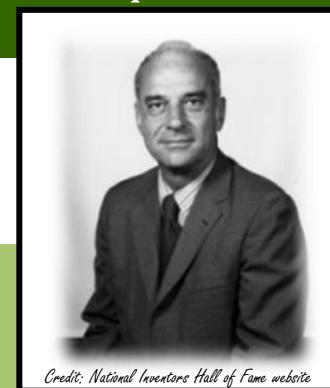


*Photo courtesy of iSi Environmental*

**Karma MASON**  
Geology / Environmental Science  
iSi Environmental Services, Wichita

2011 **SCIENCE in KANSAS**  
*150 years and counting*

## Kansas Sesquicentennial 2011



*Credit: National Inventors Hall of Fame website*

**OTIS RAY McINTIRE**  
ENGINEER, INVENTOR  
Dow Chemical Company



### Otis Ray McIntire 1918-1996

- Born in Gardner.
- Graduated from the University of Kansas in 1940 and went to work as a research engineer for Dow Chemical.
- During WW II, when rubber was in short supply, he focused on developing a rubber-like substance that could be used as a flexible insulator.
- Combined styrene with isobutylene and created styrofoam—a solid yet flexible material 30 times lighter and more flexible than solid polystyrene.
- Styrofoam is used for everything from cups, to insulation to packing peanuts.

**EXTRA COOL:** McIntire was inducted into the National Inventors Hall of Fame in 2008.

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