

WOMEN IN CHEMISTRY HISTORY



EMILY ASTON
BORN 1866 DIED 1948

Carried out research on topics including mineral analysis, atomic weights, and molecular surface energies. Coauthored 14 research papers over a 16-year period.



IRMA GOLDBERG
BORN 1871 DIED ?

One of the few women with an organic chemistry reaction named after her: The Goldberg amidation reaction, which joins an aniline and an aryl halide.



MARY ENGLE PENNINGTON
BORN 1872 DIED 1952

A biological chemist who developed new refrigeration techniques to help people preserve food. The first female lab chief of the US Food and Drug Administration.



MICHIYO TSUJIMURA
BORN 1888 DIED 1969

Carried out research on green tea, isolating several of its chemical components. She was awarded a doctorate degree in agriculture, the first woman in Japan to achieve this.



SYBIL ROCK
BORN 1909 DIED 1981

Engineer and pioneer in mass spectrometry who developed techniques to analyse results from mass spectrometers, as well as developing procedures in mixture analysis.



LONEY GORDON
BORN 1915 DIED 1999

Analysed cultures of *Bordetella pertussis*, the cause of pertussis, also known as whooping cough. Her work led to the creation of the pertussis vaccine.



ELIZABETH HARDY
BORN 1915 DIED 2008

Discovered the Cope Rearrangement, an important reaction in organic chemistry, while working in Arthur Cope's lab. She also researched and developed organic dyes.



SINAH ESTELLE KELLEY
BORN 1916 DIED 1982

Worked on mass production of the antibiotic penicillin in the United States after World War II. Also researched sugar, fermentation products, and strontium-90.



SARA BORRELL RUIZ
BORN 1917 DIED 1999

An analytical chemist who researched the biochemistry of steroid hormones. She was a founding member of the Spanish Society of Biochemistry.



GAO XIAOXIA
BORN 1919 DIED 1998

An analytical chemist who developed tools and methods to detect elements in small quantities. Her work led to further ways of separating rare earth elements.



KATHERYN LAWSON
BORN 1926 DIED 2008

Investigated transition metal compound properties. Her data helped evidence Crystal Field Theory, which describes electron orbital energies in the compounds.



DARSHAN RANGANATHAN
BORN 1941 DIED 2001

A bioorganic chemist who researched supramolecular chemistry and chemical simulation of key biological processes, such as protein folding.

