



Helen Blair Barlett

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MEMORIAL OF HELEN BLAIR BARLETT

December 14, 1901—August 25, 1969

KARL SCHWARTZWALDER, *1151 Terr. Rd., Holly, Mich. 48442*

Helen Blair Barlett was born at Sharpsville, Pa. on December 14, 1901 and died on August 25, 1969 at Southern Pines, North Carolina where she had located upon her retirement from the AC Spark Plug Division in February, 1966.

Dr. Barlett was granted a B.S. degree in geology from the Ohio Wesleyan University in 1927. She then attended the Ohio State University on an AC Spark Plug Division fellowship and was granted a Ph. D. degree in Mineralogy in 1931. At the University she was a member of Phi Beta Kappa, Sigma Xi, and Pi Mu Epsilon. During the summer months, while working on her doctorate, she served as petrographer in the Ceramic Laboratory at AC.

Upon graduation, she joined the AC Ceramic Research Department as a mineralogist-geologist. She became a ceramic research specialist in 1955 and was promoted to supervisor, ceramic research, in 1956 and ceramic scientist in 1959. She was the first woman to attain a top technical position in the General Motors organization.

Dr. Barlett was a fellow of the Mineralogical Society of America and a fellow of the American Ceramic Society. She was also a member of The American Chemical Society and the American Association for the Advancement of Science. On many occasions, Dr. Barlett was the only woman attending many of the American Ceramic Society technical sessions.

Early in her career she became identified with alumina ceramics having discovered that high alumina melts containing about 0.35 percent lithium oxide precipitated zeta alumina, $\text{Li}_2\text{O} \cdot 5\text{Al}_2\text{O}_3$. Over the years she became an authority on sintered alumina ceramic structures, particularly those relating to spark plug insulators. Her ceramic interests, though, were wide and varied, as indicated by her 7 patents.

During World War II Dr. Barlett was granted a leave in order to work on the Manhattan Project at the Massachusetts Institute of Technology under Dr. John Chipman and she received a citation for her work.

During her retirement she taught mineralogy to a group of young students and became interested in a small college, Campbell College, Buies Creek, North Carolina. A memorial has been established at Campbell College and memorial contributions can be sent to Dr. Norman Wiggins, President. Another memorial, a mobile oxygen unit for the Whispering Pines area, was established.

Dr. Barlett was an ardent golfer and approached golf experimentally. Her vacations were spent preparing for the Michigan summer season of golf. For years, she was the influencing member of Flint's Zonta International. She took an active interest in the Flint Science Fair.

She was an outstanding woman scientist. A pleasant smile showed her warm personality and her love for others of her profession. She had the respect of all who had the opportunity to know her, they will miss her lovable presence.

PUBLICATIONS OF HELEN BLAIR BARLETT

- (1931) X-ray and microscopic studies of silicate melts containing ZrO_2 . *Amer. Ceram. Soc. J.* 14, 837-843.
- (1933) (WITH KARL SCHWARTZWALDER) Effect of organic grinding media on water-soluble silica frits. *Amer. Ceram. Soc. J.* 16, 452-454.
- (1934) (WITH R. R. THOMAS) Study of the mineralogical and physical characteristics of two lithia-zirconia bodies. *Amer. Ceram. Soc. J.* 17, 17-20.
- (1940) Rate of decomposition of kyanite at various temperatures. *Amer. Ceram. Soc. J.* 23, 249-251.
- (1949) (WITH KARL SCHWARTZWALDER) Trends in the chemical mineralogical constitution of spark plug insulators. *Amer. Ceram. Soc. Bull.* 28, 462-470.
- (1965) (WITH KARL SCHWARTZWALDER) Whiteware ceramics; the development of spark plug insulator compositions. *GM Eng. J.* 12, No. 4, 2-7.

PATENTS OF HELEN BLAIR BARLETT

- (April 4, 1939) (WITH FESSLER AND McDOUGAL) Spark plug insulator. *U.S. Pat.* 2,152,655.
- (October 31, 1939) (WITH FESSLER AND McDOUGAL) Ceramic body for spark plug insulators. *U. S. Pat.* 2,177,943.
- (September 17, 1940) (WITH FESSLER AND McDOUGAL) Ceramic body for spark plug insulators. *U. S. Pat.* 2,214,931.
- (February 25, 1941) (WITH FESSLER AND T. G. McDOUGAL) Ceramic body for spark plug insulators. *U. S. Pat.* 2,232,860.
- (March 21, 1944) Method of processing mica. *U. S. Pat.* 2,344,670.
- (August 28, 1956) (WITH KARL SCHWARTZWALDER) Ceramic composition and process for making same. *U. S. Pat.* 2,760,875.
- (April 16, 1968) Corrosion-resistant coating for magnesium die castings. *U. S. Pat.* 3,378,410.

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MEMORIAL OF OLIVER BOWLES

January 10, 1877-August 1, 1958

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When one of his sons first began struggling with the Linnean binomials in biology classes, Oliver Bowles told him about the way he had mem-