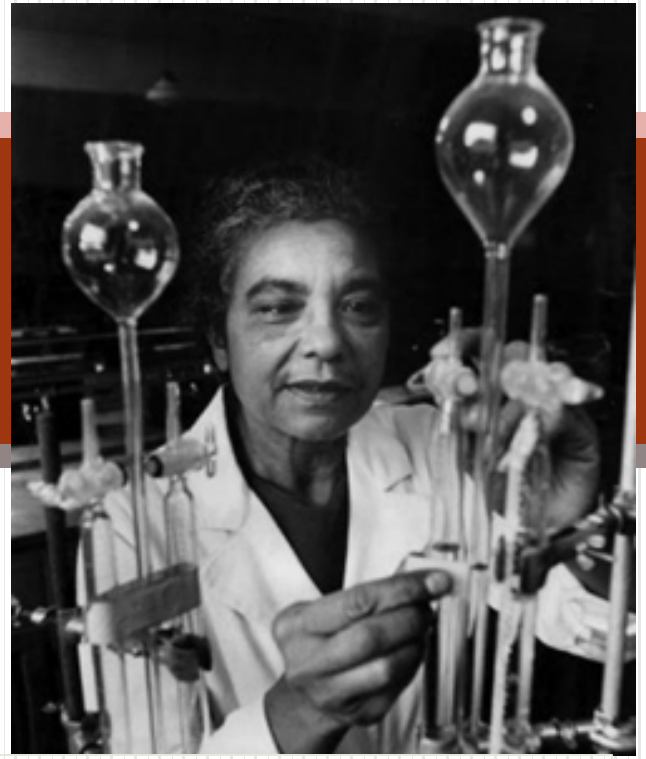
# Mary Elliot Hill



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Rachel Epplin

DEI Moment

March 2, 2021

# Early Life and Education

- Born on January 5, 1907 in South Mills, South Carolina
- Attended what is now known as Virginia State University and received her BS in chemistry in 1929

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# Early Career

- Taught chemistry at VSU Laboratory High School starting in 1930
- Started teaching chemistry part-time at the college level at the Hampton Institute in 1932
  - Became full-time faculty in 1937
- During the summers, studied and earned an MS in analytical chemistry at UPenn in 1941
  - First Black woman to earn an MS at UPenn
- Worked for a few years as an instructor at Dudley High School in North Carolina before serving as an assistant professor at Bennett College in NC for 1 year
- Was hard for Black chemists to find jobs in industry or academia except within HBCUs. If no jobs at HBCUs, would either need to teach at high school level or switch professions

- Accepted a position at Tennessee A&I (now Tennessee State University) where she was associate professor for 18 years before becoming the head of the department in 1951
- When her husband, Dr. Carl McClellan Hill, became the president of Kentucky State University in 1962, she was able to join the chemistry department there as professor
  - Spousal hires rare at the time

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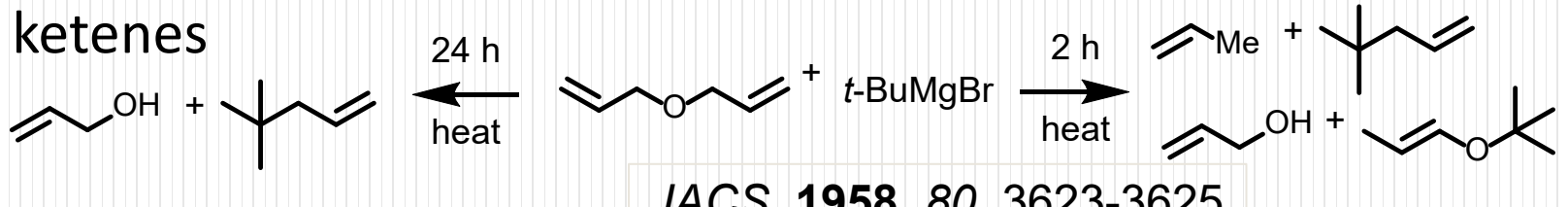
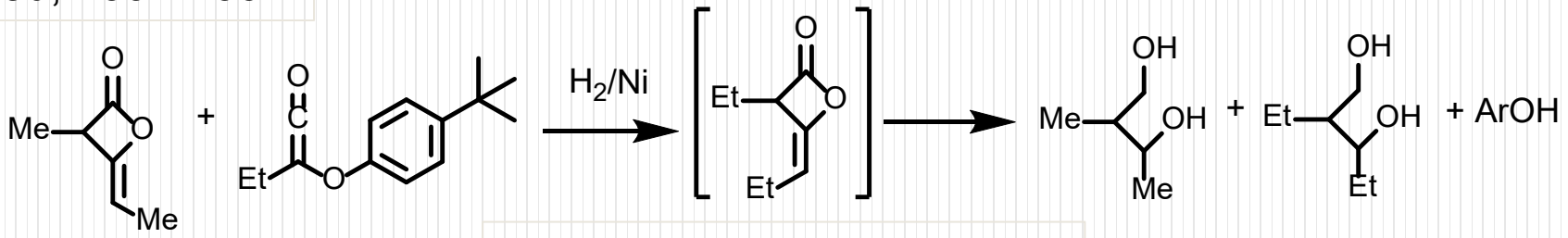
# Research

- Together with her husband Carl McClellan Hill (organic chemist), studied the Grignard reaction and ketenes


*JACS,* **1958**, *80*, 4602-4604




*JACS,* **1958**, *80*, 3623-3625




*JACS,* **1953**, *75*, 1084-1086

- As an analytical chemist, made advancements in UV spectroscopy and reaction monitoring
- Wrote two textbooks with husband

# Influence

- Established ACS chapters at Tennessee A&I and Kentucky State giving more Black students opportunities for advancement in chemistry
  - At least 20 of her students went on to become college professors
  - The Manufacturing Chemists Association named her one of the top 6 chemistry teachers in the US
- When asked about why luring women into chemistry was a challenge at the time: “Today’s emphasis on science tends to attract girls, but the prestige value wanes once they realize the physical work, the self-discipline, and the study that chemistry requires. Girls like to be dressed up and feminine—high heels and long hair are not only out of place in a lab, they are unsafe. Don’t think this doesn’t influence a lot of prospects.”
  - Although not known for her progressive feminist views, her influence in chemistry and advancing Black people in science cannot be overstated

## African American Female
## STEM Degree and Career Attainment
**(***Figures are only for U.S. Citizens/Permanent Residents***)**

- Bachelor's degrees awarded in S&E (2010)
  - Both sexes = 507,143
  - All females = 256,352
  - *Black females = 27,576 (10.7% of female Bachelor's degree recipients)*
- Master's degrees awarded in S&E (2010)
  - Both Sexes = 103,552
  - All females = 51,371
  - *Black females = 6,704 (13% of female Master's degree recipients)*
- Doctoral degrees awarded in S&E (2010)
  - Both sexes = 20,570
  - All females = 9,468
  - *Black females = 546 (<1% of female doctoral degree recipients)*
- Employed scientists and engineers across all occupational levels in business or industry (2008)
  - All races/both sexes = 4,874,000
  - All females = 1,308,000
  - *Black females = 75,000 (<1% of females employed in S&E)*
- Employed scientists and engineers, S&E managerial positions in business or industry (2008)
  - All races/both sexes = 314,000
  - All females = 63,000
  - African Americans = 14,000 *(<1 % of ALL employed in S&E Management; data not disaggregated for sex)*

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**Source**: National Science Foundation. *Women, Minorities, and Persons with Disabilities in Science and Engineering: 2013*. Special Report NSF 13-304. Arlington, VA.

# Bibliography

Brown, Jeannette. *African American Women Chemists*, Oxford University Press, Incorporated, 2011. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/iub-ebooks/detail.action?docID=797741.