SENATE RULES COMMITTEE

Office of Senate Floor Analyses

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THIRD READING

Bill No: SCR 99 Author: Allen (D) Introduced: 7/9/25 Vote: 21

SUBJECT: Eunice Newton Foote

SOURCE: Author

DIGEST: This resolution honors the life and legacy of Eunice Newton Foote and proclaims July 17, 2025, as Eunice Newton Foote Day.

ANALYSIS: This resolution makes the following legislative findings:

- 1) Eunice Newton Foote was a principal activist in the women's rights movement, an inventor, and a groundbreaking scientist whose work helped establish the field of climate science.
- 2) As an amateur scientist and distant relative of Sir Isaac Newton, Foote conducted a series of experiments in the 1850s analyzing the interaction of the sun's rays on a fixed volume of various gases, from which she demonstrated that carbon dioxide was heated to a higher temperature by the same exposure to sunlight and cooled more slowly than air, and the influence of the water content of a gas on heat retention.
- 3) Having observed the pronounced effect of sunlight on carbon dioxide as compared to normal air or hydrogen, Foote concluded that, "An atmosphere of that gas would give to our earth a high temperature; and if as some suppose, at one period of its history the air had mixed with it a larger proportion than at present, an increased temperature from its own action, as well as from increased weight, must have necessarily resulted."
- 4) Foote laid out her findings and conclusions in her paper "Circumstances Affecting the Heat of the Sun's Rays," which she submitted for the 10th annual meeting of the American Association for the Advancement of Science (AAAS),

- marking the first published work to recognize climatic warming caused by an increased proportion of carbon dioxide in the atmosphere.
- 5) Upon its complete publication in the 1856 edition of the American Journal of Science and Arts, Foote's paper became the first physics publication written by an American woman outside the field of astronomy to be included in a scientific journal, later being printed or summarized in a myriad of journals throughout 1856 and 1857.
- 6) In addition to her published scientific works and multiple patents held under her name, Foote had many inventions patented under her husband's name, and highlighted to Elizabeth Cady Stanton the pervasive practice of women's inventions being patented under their husbands' names as a consequence of the social and legal infrastructure of the time, acknowledging the mechanism by which countless innovations and technological advancements by women have been kept out of the historical record.
- 7) Eunice Newton Foote died on September 29, 1888, at 69 years of age after a lifetime of research, activism, and innovation, often without the credit or recognition of which her contributions were deserving, the depth of which was only fully understood nearly a century after her death when historians rediscovered her published work.

This resolution honors the life and legacy Eunice Newton Foote and proclaims July 17, 2025, as Eunice Newton Foote Day, a day of remembrance and education to ensure that all Californians recognize and honor the incalculable scientific and social contributions of Eunice Newton Foote and the countless women whose contributions have been overlooked

FISCAL EFFECT: Appropriation: No Fiscal Com.: No Local: No

SUPPORT: (Verified 7/16/25)

None received

OPPOSITION: (Verified 7/16/25)

None received

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