

# GENEALOGY DATABASE ENTRY

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Washburn, Edward Wight

1881 - 1934

DEGREE: PhD

DATE: 1908

PLACE: MIT

TEACHER/RESEARCH ADVISOR: Noyes, A. A.

first to apply thermodynamic treatments to buffer solutions; first to accurately measure transference numbers - the fraction of an electric current carried by each ion in an electrolyte solution; pioneered the study of hydration of ions; developed thermodynamic treatments of a number of colligative properties and apparatus for the precise measurement of electrical conductance and viscosity; applied physiochemical principles to the study of ceramics, glasses at high temperatures, and the manufacture of optical glass; devised greatly improved techniques for the fractionation and isolation of the chemical constituents of petroleum; succeeded in obtaining rubber in crystal form; suggested that the electrolysis of water should yield gaseous hydrogen and oxygen richer in the lighter isotopes, the residual water thereby becoming richer in the heavier isotopes, thus developing the first practical method for producing deuterium oxide in quantity.

1. *Dictionary of Scientific Biography*; Charles Scribner's Sons: 1970-1990; vol. 14, p182-183.
2. *Dictionary of American Biography*; Malone, D., Ed.; Charles Scribner's Sons: 1936; vol. 19, p498-499.
3. *Biog. Mem. Nat. Acad. Sci.* **1937**, 17, 67-81.
4. *Bull. Am. Ceram. Soc.* **1934**, 13(3), 78.
5. *Nature* **1934**, 133, 712-713.
6. *Science* **1934**, 79, 221-222.