Dale Corson's Significant Scientific Papers

Selected Papers

- ❏ Dale Corson and Robert Brode, "The Specific Ionization and Mass of Cosmic Ray Particles," *The Physical Review,* Vol. 53, May 15, 1938
- ❏ D. R. Corson and R.I. Thornton, "Disintegration of Uranium", *Physical Review Letters,* February 15, 1939
- ❏ D. R. Corson, K. R. MacKenzie and E. Segre, "Artificially Radioactive Element 85" *Physical Review,* October 15, 1940[1]
- ❏ Magazine Discussion of Advances in Radar, *Radar,* November 15, 1944
- ❏ D. R. Corson, K. R. MacKenzie and E. Segre, "Astatine: the Element of Atomic Number 85", *Nature,* January 4, 1947[2]
- ❏ Dale R. Corson and Robert Wilson, "Particle and Quantum Counters", *The Review of Scientific Instruments,* April 1948
- ❏ Dale R. Corson, "Multiple Scattering of Fast Electrons in Nuclear Emulsions", *Physical Review Letters,* July 28, 1950
- ❏ Dale Corson, "Multiple Scattering of Electrons in Nuclear Emulsions", *The Physical Review,* November 1, 1951
- ❏ Dale Corson, "Radiation by Electrons in Large Orbits", *The Physical Review,* June 1, 1953
- ❏ D.R. Corson and A.O. Hanson, "Extranuclear Interactions of Electrons and Gamma Rays, *Annual Review of Nuclear Science,* 1953
- ❏ H.L. Davis and D.R. Corson, "Elastic Photoproduction of Pi0 Mesons from Deuterium at 270 MEV", *The Physical Review,* July 1, 1955
- ❏ Dale Corson, "Electromagnetic Induction in Moving Systems", *American Journal of Physics,* March 1956
- ❏ W.S. Mc Donald, V.Z. Peterson and D.R. Corson, "Photo production of Neutral Pions from Hydrogen at Forward Angles from 240 to 480 MEV", *The Physical Review,* July 15, 1957
- ❏ D.R. Corson, J.W. DeWire, B.D. McDaniel, R.R. Wilson, "The Cornell 300 MEV Synchrotron", Report for Office of Naval Research, 1953[3]
- ❏ Dale Corson, "Astatine", *Chemical and Engineering News,* September 8, 2003[4]

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1 This is the definitive paper on the discovery of a new element in the Periodic Table.

2 The new element, Astatine, is named.

3 This 78-page report documents in detail the design and early operation of the 300 MEV synchrotron, Cornell's first post WW II electron accelerator. Dale Corson was one of the major designers of this machine, one of the very first synchrotrons to operate successfully. The report is included in full on the DVD and on line as a scanned PDF..

4 The September 8, 2003 issue of Chemical and Engineering News is a commemorative issue that included one-page summaries documenting the circumstances surrounding the discovery of each of the chemical elements. Dale Corson was one of only a few of the discoverers still around to give a first hand account of the discovery, in this case, of Astatine.