References

Title: In Search of El Dorado: John Dalton and the Origins of the Atomic Theory.
Authors: Rocke, Alan J.
Source: Social Research; Spring2005, Vol. 72 Issue 1, p125-158, 34p

Abstract: This article examines how John Dalton formulated his atomic theory of matter. Dalton's v called forth a vigorous international research program that has a continuous history from the present--nanoscience long before the word became vogue. Almost from the start, that program utterly transformed the science; moreover, it was atomistic theory that enabled chemistry, two generations after Dalton, to become the earliest example of a well-develop science-based theory acquiring the practical power to transform the world of technology commerce. Dalton knew that water consists of 87.5 oxygen and 12.5 percent hydrogen by that is exactly seven times as much as oxygen as hydrogen. If one assumes, with Dalton, invisibly small water molecule consists of an atom of hydrogen united to an atom of oxyg every oxygen atom must weigh seven times as much as every hydrogen atom, for under t circumstances it is obvious that the weight ratio of the atoms must match the composition compound. In contrast to Dalton, Humphry Davy and Jacob Berzelius assumed (in 1812 1814, respectively) that the formula for water was H2O rather than Dalton's HO.

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Title: Find More Like This***J***. ***J***. ***Thompson***: The Discovery of the Electron and the Chemists.
Authors: Chayut, Michael
Source: Annals of Science; Nov91, Vol. 48 Issue 6, p527, 18p, 1bw
Document Type: Article
Subject Terms: CHEMISTRY
ELECTRONS
People: THOMSON, J. J.

Abstract: This article examines the origins and development of ***J***. ***J***. Thomson's chemical thought, reception of his theories by chemists. Thomson's interest in chemical combination and at theories of matter dates from his formative schooldays at Owens College, Manchester. Th themes constituted a persistent leitmotif in the development of Thomson's style of though provided a powerful stimulus which enabled him to enunciate the concept of ***electrons*** as fundamental particles. Thomson's influence on chemists during the years 1903 to 1923 re the richness and fertility of his chemical thought.. He influenced the absorption of the Vi physical tradition by American chemists, thus adding a mechanistic, picture-embedded st theoretical chemistry. Thomson's Style of thought resonated with the needs of American chemists, but was ignored in Germany.

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Authors:	Crepeau, Bob
Source:	Niels Bohr; 1/1/2006, p2, 1p
Document Type:	Biography
Subject Terms:	ATOMS -- Models CHEMICAL models PHYSICISTS PHYSICS -- History BOHR, Niels Henrik David, 1885-1962
People:	RUTHERFORD, Ernest
Abstract:	The article discusses the history and development of Neils ***Bohr's*** atomic ***model***. The reviews how the ***Bohr model*** shows the atom as a small, positively charged nucleus su by orbiting electrons. ***Bohr*** discovered that electrons travel in separate orbits around t nucleus, and that the number of electrons in the outer orbits determines the properties elements. He established that an electron could drop from a higher-energy orbit to a lo giving off energy in the process. According to the author, ***Bohr*** based his work on tha Rutherford, who had suggested that the atom has a miniature, dense nucleus surrounde electrons.
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Web Pages

The Rutherford model

http://myweb.usf.edu/~mhight/timeline.html

http://www.mhhe.com/physsci/chemistry/essentialchemistry/flash/ruther14.swf
Great website with animations of the Thompson model through the gold foil experiment

The Bohr model

http://csep10.phys.utk.edu/astr162/lect/light/bohr.html

http://www.upscale.utoronto.ca/GeneralInterest/Harrison/BohrModel/BohrModel.html
This document was written in March 1999 by David M. Harrison, Department of Physics,

University of Toronto, mailto:harrison@physics.utoronto.ca. This is version 1.9, date (m/d/y) 05/21/03.

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