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7. R. Siegfried, "Lavoisier's Table of Simple Substances: Its Origin and Interpretation", *Ambix*, **1982**, *29*, 29.

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9. W. D. Miles, "The Columbian Chemical Society", *Chymia*, **1959**, *5*, 145.

10. W. D. Miles, "Early American Chemical Societies", *Chymia*, **1950**, *3*, 95. Also W. D. Miles, "John Redman Coxe and the Founding of the Chemical Society of Philadelphia in 1792", *Bull. Hist. Medicine.*, **1956**, *30*, 469 and H. C. Bolton, "Early American Chemical Societies", *Pop. Sci. Monthly*, **1897**, *51*, 819.

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22. J. Locke, *An Essay Concerning Human Understanding (1690)*, Oxford University Press, Oxford, 1975.

23. P. Alexander, *Ideas, Qualities and Corpuscles*, Cambridge Univeristy Press, London, 1985.

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27. For summaries of the accomplishments of the 19th century chemist in this area see, S. Smiles, *The Relations Between Chemical Constitution and Some Physical Properties*, Longmans, Green and Co., London, 1910, and H. Kauffmann, *Beziehungen Zwischen Physikalischen Eigenschaften und Chemischen Konstitution*, Enke, Stuttgart, 1920.

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29. J. W. Llana, "A Contribution of Natural History to the Chemical Revolution in France", *Ambix*, **1985**, *32*, 71, and H. Cassebaum and G. Kauffman, "The Analytical Concept of a Chemical Element in the Work of Bergman and Scheele," *Ann. Sci.*, **1976**, *33*, 447.

30. See the accounts in M. E. Weeks, *Discovery of the Elements*, 6th ed., J. Chem. Educ., Easton, PA, 1960.

31. E. Cassirer, *Substance and Function*, Open Court, Chicago, IL, 1923, p. 153.

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A BIOGRAPHICAL CHECKLIST

The following is a checklist of biographies of Lavoisier in the *Oesper Collection in the History of Chemistry* at the University of Cincinnati. For teachers and practicing chemists looking for brief, accessible introductions, Guerlac (1975), McKie (1952) and Davis are recommended. For more scholarly detail on specific aspects, Guerlac (1961) and Holmes are recommended.

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* M. Berthelot, *Notice Historique sur Lavoisier*, Académie des Sciences, Paris, 1889.

* J. A. Cochrane, *Lavoisier*, Constable, London, 1931.

* M. Crosland, *Les Héritiers de Lavoisier*, Palais de la Découverte, Paris, 1968.

* C. Cuttlota, *Respiration and the Lavoisier Tradition*, American Philosophical Society, Philadelphia, PA, 1972.

* M. Daumas, *Lavoisier*, Gallimard, Paris, 1941.

* M. Daumas, *Lavoisier, Théoricien et Expérimentateur*, Presses Universitaires de France, Paris, 1955.

* K. S. Davis, *The Cautionary Scientists: Priestley, Lavoisier and the Founding of Modern Chemistry*, Putnam, New York, 1966.

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* D. I. Duveen and H. S. Klickstein, *A Bibliography of the Works of Antoine Laurent Lavoisier*, 1743-1794, Dawson, London, 1954.
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* A. L. Lavoisier, *Correspondence*, 3 Volumes, Michel, Paris, 1955-1964.
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* D. McKie, *Antoine Lavoisier, The Father of Modern Chemistry*, Lippincott, Philadelphia, PA, 1935.
* D. McKie, *Antoine Lavoisier: Scientist, Economist, Social Reformer*, Schuman, New York, 1952.
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* M. Speter, *Lavoisier und seine Vorlaüfer*, Enke, Stuttgart, 1910.
* A. Susac, *The Clock, The Balance, and the Guillotine. The Life of Antoine Lavoisier*, Doubleday, Garden City, NY, 1970. (A fictionalized account intended for pre-teens)
* F. Szabadváry, *Antoine Laurent Lavoisier, The Investigator and His Times*, University of Cincinnati, Cincinnati, OH, 1977.
* L. Velluz, *Vie de Lavoisier*, Plon, Paris, 1966.

A REVOLUTIONARY TIMETABLE

Year	*Lavoisier's Life*	*Concurrent Political and Chemical Events*
1743	* Born 26 August in Paris.	* Franklin founds the American Philosophical Society, Birth of Jefferson and Klaproth.
1745		* Lead chamber process, birth of Gahn.
1748	* Death of mother.	
1751		* Publication of Diderot's *Encyclopédie* and Macquer's *Elémens de Chymie*, discovery of nickel (Cronstedt).
1754	* Enters the Collège Mazarin.	
1755		* Birth of Fourcroy.
1756		* Start of Seven-Years War, publication of Black's *Experiments upon Magnesia, Quicklime and Other Alkaline Substances.*
1758		* Publication of Cronstedt's *Essay on the New Mineralogy.*
1760	* Death of sister.	
1761		* Death of Stephen Hales.
1762	* Attends Rouelle's chemical lectures.	
1763	* Obtains law degree, begins geological studies with Guettard.	* Peace of Paris, birth of Vauquelin.
1764	* Admitted to the bar.	* Publication of Macbride's *Experimental Essays.*
1765	* Reads first memoir (on gypsum) to the Académie.	* Death of Lomonosov, discovery of prussic acid (Scheele).
1766	* Receives medal for essay on lighting.	* Birth of Dalton and Wollaston, Cavendish reports the discovery of hydrogen, publication of Macquer's *Dictionaire de Chymie.*
1767	* Geological tour with Guettard.	
1768	* Election to the Académie, purchase of interest in the Ferme Génerale.	
1770	* Memoirs on transmutation of water and earth.	* Discovery of tartaric acid (Scheele), death of Rouelle.
1771	* Marriage to Marie Anne Paulze.	
1772	* Formulates program for study of airs, first experiments on combustion, (sealed note), combustion of diamond, associate at the Académie.	* Publication of Guyton's *Digressions Académique* and Priestley's first paper in his series on *Observations on Different Kinds of Air*, discovery of nitrogen (Rutherford).
1774	* Publication of *Opuscules Physique et Chimique,*	* Ascension of Louis XVI, discovery of manganese (Gahn),