

Modesto Bargalló (1894--1981)



Modesto Bargalló was born in Catalonia, Spain, in 1894 and following completion of his education to the doctorate level, pursued a productive career in science, science education and history of science. During his life in Spain he authored several texts in chemistry, biology, and physics and published studies in science education including: *Manual de Química* (1919); *La Vida de las Plantas : Experiencias Sencillas para la Escuela Primaria* (1920); *Cómo se Enseñan las Ciencias Fisicoquímicas* (1923); *Manual de Física* (1925, 1932); and *Metodología de las Ciencias Naturales y de la Agricultura* (1932). He also translated texts by Richard Meyer (*Popular Chemistry*) and Wilhelm Ostwald (*Elements of Chemistry*) in order to make their work available in Spanish. His own book dealing with the methodology of the natural sciences saw extensive use.

In 1939, at the close of the Spanish Civil War leading to the Franco dictatorship, he fled Spain and started a new life in Mexico. He became a member of the National Polytechnic Institute of Mexico in Mexico City as well as the National School of Biological Sciences.

All of Bargalló's papers and books were written in Spanish. After coming to Mexico he published primarily in *Revista de la Sociedad Química de México* and *Ciencia*. He wrote a paper on the importance of the history of chemistry in education and research (*Revista* 19 (1975): 90–92) in which he advocated the use of biographical materials to set standards for both students and mature workers. He was deeply concerned about the correct use of terms and the proper boundaries of the several areas of chemistry.

Two particularly important papers dealing with the development of knowledge of sulfuric acid are "Classical and Modern Ideas and Investigations of the Composition and Structure of Sulfuric Acid and Its Solutions. I. From Sylvius and Mayow to the Theory of Hantzsch (1908–1925) (*Ciencia* 18 (1958): 7–20) and "The Architecture of the Sulfate Ion and the Constitution of Sulfuric Acid and Its Solutions" (*Ciencia* 19 (1959):229–242 [English translation of Spanish titles]. Bargalló is best known for his many books, specifically *La Minería y la Metalurgia en la América Española durante la Epoca Colonial* (1955); *Las Ferrerías de los Primeros Veinticinco Años del México Independiente* (1965); *Andrés Manuel del Río y su obra Científica* (1966); *La Amalgamación de los Metales de Plata en Hispanoamérica Colonial* (1969); *Neuva Theorica del Beneficio de los Metales de Oro y Plata of Joseph Garcés y Equia* (1970); and *Los Trabajo, los Artículos, y Apuntes, 1942-1972, Sobre Química, Educación y la Metalurgia y de México y en Hispanoamérica Colonial* (1973).

Modesto Bargalló was a founding member of the Mexican Society of History of Science and Technology, established in 1964. He received the Dexter Award in 1977 for his numerous contributions to the history of chemistry and in particular for his contributions to the history of metallurgy in the New World during the Colonial Period. He died in Mexico City in 1981.

Sources

Aaron J. Ihde, *A Quarter Century of Dexter Awards*, 1981, unpublished manuscript. Copy in the University of Pennsylvania Library, QD21 .Q8 1981a; an abridged version can be found in *Bulletin for the History of Chemistry* 4 (1989):23.

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