

Chemical and Physical Models for Atomistic Notion – Its Conceptual Development in Relation to the Evolution of the Concept of Chemical Substance. A Contribution to the History of Atomism (IV)

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Introductory Discussion

The author presents, in continuation of his foregoing articles on the history of atomism⁽¹⁾, a theoretical consideration on the development of atomistic notion, particularly that in chemistry, in its relation to the evolution of the concept “chemical substance”.

The latter part of this problem is considered to be an independent issue to be studied, because the chronological division of the history of chemistry from theoretical point-of-view should depend on the evolution of matter cognition. The chronological division of chemistry has been usually made more or less conventionally, but not in some logical sequence. A classical example is that of H. Kopp in his “*Geschichte der Chemie*”. He depicted the development of chemistry by setting five periods, namely : (1) ancient chemistry, (2) Alchemy, (3) Iatrochemistry, (4) phlogiston theory and (5) quantitative chemistry. If we divide the last period into (5) Lavoisier’s system of chemistry and (6) the Daltonian atomic theory, the whole range of chemistry until the beginning of its modern stage may be covered completely. Such mode of period division, although it is more or less convenient to bear in mind main events as well as to describe cultural-historical features of prehistorical stages of chemistry, it lacks logical consistency underlying the whole development of this science. The chemical atomic theory of Dalton was obviously the logical consequence of the Lavoisier’s

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