

not peculiarly engaged in chemical research, but who was often distinguished by his rapid and happy generalizations, M. Ampère. He supported this analogy by many ingenious and original arguments, in letters written to Davy, while that chemist was engaged in his researches on fluor spar, as Davy himself declares.<sup>2</sup>

Still further changes have been proposed, in that classification of elementary substances to which the oxygen theory led. It has been held by Berzelius and others, that other elements, as, for example, sulphur, form *salts* with the alkaline and earthy metals, rather than sulphurets. The character of these *sulpho-salts*, however, is still questioned among chemists; and therefore it does not become us to speak as if their place in history were settled. Of course, it will easily be understood that, in the same manner in which the oxygen theory introduced its own proper nomenclature, the overthrow or material transformation of the theory would require a change in the nomenclature; or rather, the anomalies which tended to disturb the theory, would, as they were detected, make the theoretical terms be felt as inappropriate, and would suggest the necessity of a reformation in that respect. But the discussion of this point belongs to a step of the science which is to come before us hereafter.

It may be observed, that in approaching the limits of this part of our subject, as we are now doing, the doctrine of the combination of *acids* and *bases*, of which we formerly traced the rise and progress, is still assumed as a fundamental relation by which other relations are tested. This remark connects the stage of chemistry now under our notice with its earliest steps. But in order to point out the chemical bearing of the next subjects of our narrative, we may further observe, that *metals*, *earths*, *salts*, are spoken of as known *classes* of substances; and in like manner the newly-discovered elements, which form the last trophies of chemistry, have been distributed into such classes according to their analogies; thus *potassium*, *sodium*, *barium*, have been asserted to be metals; *iodine*, *bromine*, *fluorine*, have been arranged as analogical to *chlorine*. Yet there is something vague and indefinite in the boundaries of such classifications and analogies; and it is precisely where this vagueness falls, that the science is still obscure or doubtful. We are led, therefore, to see the dependence of Chemistry upon Classification; and it is to Sciences of Classification which we shall next proceed; as soon as we have noticed the most general views

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<sup>2</sup> Paris, *Life of Davy*, i. 370.