

rising to the highest point of generality, have yet their several scopes and ranges of extensive application, they must be well and perfectly understood in all their bearings. Should we ever arrive at an analysis of these bodies, the chemical properties of the new elements which will then come into view will be known only by our knowledge of these, or of other compounds of the same class, which they may be capable of forming. Not but that such an analysis would be a most important and indeed triumphant achievement, and change the face of chemistry; but it would undo nothing that has been done, and render useless no point of knowledge which we have yet arrived at.

(339.) The atomic theory, or the law of definite proportions, which is the same thing presented in a form divested of all hypothesis, after the laws of mechanics, is, perhaps, the most important which the study of nature has yet disclosed. The extreme simplicity which characterizes it, and which is itself an indication, not unequivocal, of its elevated rank in the scale of physical truths, had the effect of causing it to be announced at once by Mr. Dalton, in its most general terms, on the contemplation of a few instances,* without passing through subordinate stages of painful inductive ascent by the intermedium of subordinate laws, such as, had the contrary course been pursued by him, would have been naturally preparatory to it, and such as would have led others to it by the prosecution of Wenzel's and Richter's researches, had they been duly attended to. This is, in fact, an example, and a most remarkable one, of the effect of that natural propensity to generalize and simplify (noticed in 171.), which, if it occasionally leads to over-hasty conclusions, limited or disproved by further experience, is yet the legitimate parent of all our most valuable and our soundest results. Instances like this, where great and, indeed, immeasurable steps in our knowledge of nature are made at once, and almost without intellectual effort, are well calculated to raise

* Thomson's First Principles of Chemistry, Introduction.