by Black, with its train of important consequences, including the scientific theory of the steam-engine.

3. The establishment of Wenzel's law of definite proportions on his own experiments, and those of Richter, a discovery subsequently merged in the greater generality of the atomic theory of Dalton.
4. The precise determination of the atomic weights of the different chemical elements, mainly due to the astonishing industry of Berzelius, and his unrivalled command of chemical resources, as well as to the researches of the other chemists of the Swedish and German school, and of our countryman, Dr. Thomson.
5. The assimilation of gases and vapors, by which we are led to regard the former, universally, as particular cases of the latter; a generalization resulting chiefly from the experiments of Faraday on the condensation of the gases, and those of Gay Lussac and Dalton, on the laws of their expansion by heat compared with that of vapors.
6. The establishment of the laws of the combination of gases and vapors by definite volumes, by Gay Lussac.
7. The discovery of the chemical effects of electricity, and the decomposing agency of the Voltaic pile, by Nicholson and Carlisle; the investigation of the laws of such decompositions, by Berzelius and Hisinger: the decomposition of the alkalies by Davy, and the consequent introduction into chemistry of new and powerful agents in their metallic bases.
8. The application of chemical analysis to all the objects of organized and unorganized nature, and the discovery of the ultimate constituents of all, and the proximate ones of organic matter, and the recognizance of the important distinctions which appear to divide these great classes of bodies from each other.