

previously been confounded. Among crystals which in the collections were ranked together as "heavy spar," and which were so perfect as to admit of accurate measurement, he found that those which were brought from Sicily, and those of Derbyshire, differed in their cleavage angle by three degrees and a half. "I could not suppose," he says,⁷ "that this difference was the effect of any law of decrement; for it would have been necessary to suppose so rapid and complex a law, that such an hypothesis might have been justly regarded as an abuse of the theory." He was, therefore, in great perplexity. But a little while previous to this, Klaproth had discovered that there is an earth which, though in many respects it resembles baryta, is different from it in other respects; and this earth, from the place where it was found (in Scotland), had been named *Strontia*. The French chemists had ascertained that the two earths had, in some cases, been mixed or confounded; and Vauquelin, on examining the Sicilian crystals, found that their base was strontia, and not, as in the Derbyshire ones, baryta. The riddle was now read; all the crystals with the larger angle belong to the one, all those with the smaller, to the other, of these two sulphates; and crystallography was clearly recognized as an authorized test of the difference of substances which nearly resemble each other.

Enough has been said, probably, to enable the reader to judge how much each of the two persons, now under review, contributed to crystallography. It would be unwise to compare such contributions to science with the great discoveries of astronomy and chemistry; and we have seen how nearly the predecessors of Romé and Haüy had reached the point of knowledge on which these two crystallographers took their stand. But yet it is impossible not to allow, that in these discoveries, which thus gave form and substance to the science of crystallography, we have a manifestation of no common sagacity and skill. Here, as in other discoveries, were required ideas and facts;—clearness of geometrical conception which could deal with most complex relations of form; a minute and extensive acquaintance with actual crystals; and the talent and habit of referring these facts to the general ideas. Haüy, in particular, was happily endowed for his task. Without being a great mathematician, he was sufficiently a geometer to solve all the problems which his undertaking demanded; and though the mathematical reasoning might have been made more compendious

⁷ *Traité*, ii. 320.