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Chemistry did not emerge as a science until after the scientific revolution in the seventeenth century and then only rather slowly and laboriously. But chemical knowdedge is as old as history, being almost entirely concerned with the practical arts of living. Cooking is essentially a chemical process; so is the melting of metals and the administration of drugs and poisons. This basic chemical knowledge, which was applied in most cases as a rule of thumb, was nevertheless dependent on previous experiment. It also served to stimulate a fundamental curiosity about the processes themselves. New information was always being gained as artisans improved techniques to gain better results. The development of a scientific􀀁approach to chemistry was, however, hampered by several factors. The most serious problem was the vast range of material available and the consequent difficulty of organizing it into some system. In addition, there were social and intellectual difficulites, chemistry is nothing if not practical; those who practice it must use their hands, they must have a certain practical flair. Yet in many ancient civilizations, practical tasks were primarily the province of a slave population. The thinker or philosopher stood apart from this mundane world, where the practical arts appeared to lack any intellectual content or interest. The final problem for early chemical science was the element of secrecy. Experts in specific trades had developed their own techniques and guarded their knowledge to prevent others from stealing their livelihood. Another factor that contributed to secrecy was the esoteric nature of the knowledge of a alchemists, who were trying to transform base metals into gold or were concerned with the hunt for the elixir that would bestow the blessing of eternal life. In one sense, the second of these was the more serious impediment because the records of the chemical processes that early alchemists had discovered were often written down in symbolic language intelligible to very few or in symbols that were purposely obscure.