http://www.geology.19thcenturyscience.org/books/1850-Lyell-Principles/README.htm

tint upon its surface, is less easily acted upon, and, as the stream widens, the surface, having lost its state of perfect solution, grows harder and harder, and cracks into innumerable fragments of very porous matter, to which they give the name of scoriæ, and the appearance of which has led many to suppose that it proceeded thus from the mountain. There is, however, no truth in this. All lava, at its first exit from its native volcano, flows out in a liquid state, and all equally in fusion. The appearance of the scoriæ is to be attributed only to the action of the external air, and not to any difference in the materials which compose it, since any lava whatever, separated from its channel, and exposed to the action of the external air, immediately cracks, becomes porous, and alters its form. As we proceeded downward, this became more and more evident; and the same lava which at its original source flowed in perfect solution, undivided, and free from encumbrances of any kind, a little farther down had its surface loaded with scoriæ in such a manner, that, upon its arrival at the bottom of the mountain, the whole current resembled nothing so much as a heap of unconnected cinders from an iron-foundery." In another place he says, that "the rivers of lava in the plain resembled a vast heap of cinders, or the scoriæ of an iron-foundery, rolling slowly along, and falling with a rattling noise over one another."* Von Buch, who was in company with MM. de Humboldt and Gay-Lussac, describes the lava of 1805 (the most fluid on record) as shooting suddenly before their eyes from top to bottom of the cone in one single instant. Professor J. D. Forbes remarks that the length of the slope of the cone proper being about 1300 feet, this motion must correspond to a velocity of many hundred feet in a few seconds, without interpreting it literally. The same lava, when it reached the level road at Torre del Greco, moved at the rate of only eighteen inches per minute, or three tenths of an inch per second.†

It appears that the intensity of the light and heat of the lava varies considerably at different periods of the same eruption, as in that of Vesuvius in 1819 and 1820, when Sir H. Davy remarked different degrees of vividness in the white heat at the point where the lava originated.‡

When the expressions "flame" and "smoke" are used in describing volcanic appearances, they must generally be understood in a figurative sense. We are informed, indeed, by M. Abich, that he distinctly saw, in the eruption of Vesuvius in 1834, the flame of burning hydrogen§; but what is usually mistaken for flame consists of vapour or scoriæ, and impalpable dust illuminated by that vivid light which is emitted from the crater below, where the lava is said to glow with the splendour of the sun. The clouds of apparent smoke are formed either of aqueous and other vapour, or of finely comminuted scoriæ.

* Otter's Life of Dr. Clarke.
† Phil. Trans. 1846, p. 154.
‡ Phil. Trans., 1828, p. 241.
§ Bulletin de la Soc. Géol. de France, tom. vii. p. 43.; and Illustrations of Vesuvius and Etna, p. 3.