http://www.geology.19thcenturyscience.org/books/1901-Zittel-HistGeol/README.htm

suggested sulphur as the cause of fluxion, Spallanzani believed that the expansion of vapours was the main cause of the explosive phenomena of eruptions, and Humboldt and Poulett-Scrope accepted and extended Spallanzani's view. Scrope regarded the elastic vapours as original constituents of the earth-magma; on the other hand, Humboldt contended that water had passed down from the surface through fissures, had there come in contact with the glowing magma, been converted into steam, and absorbed in the magma. The majority of later geologists agree with Humboldt's explanation.

Humboldt had chiefly in view the descent of sea-water through crust-fissures, as the geographical distribution of active volcanoes would suggest, but he by no means excluded the likelihood that similar results ensue from the percolation of meteoric water through the rocks. The obvious difficulty, pointed out by Humboldt himself, was whether the hydrostatic pressure of the descending column of water could overcome the resistance of the vapours at high tension in the earth's interior. Bischof and Daubrée have shown that surface water may, in virtue of capillarity and the pressure of its own column, descend into the heated depths of the earth. Angelot also concluded that the tension of a column of water would at any depth be overcome by the pressure of the superincumbent masses of water; in his opinion, the ocean is the source of the vapours dissolved in deep-seated magma. And Bischof shows that not only water-vapour but also carbonic acid, hydrochloric acid, and other gases imprisoned in rock-magma play a considerable part in eruption.

In more recent geological writings, Reyer has investigated the question of supply in reference to the constituents of molten magmas, and his conclusions are in agreement with those of Angelot, Fourier, and Poulett-Scrope. According to Reyer, at the formation of the earth, not only vapour of water, but many other gases and liquids were intermixed with the material matter of the earth, and these have been preserved in it. The continual separation of the less fusible parts from the magma is always accompanied by the escape of gases. These are absorbed by the liquids with which the magmas are soaked, and owing to a relief of superincumbent pressure, the liquids may at any time vaporise and the magma may be expelled towards the surface in fluid condition. Experiments