

than pure metals; but we have given a reason for the supposition that, if the substances of which we have spoken were existent in a deoxydised state, it would not be in union with each other. If it could be imagined that the earth was originally a ball of potassium, the theory might then be supported; for the decomposition of water and the burning of potassuretted hydrogen might be supposed to mimic the exhibitions of Etna, if not of Tomboro. **But**, as the constituent elements of lava evince no tendency to act agreeably to our requisitions, we must renounce the theory, unless we can give the substances imaginary properties. No one would be led to think of a volcanic eruption from the effect of water on a cold cannon-shot; yet the chymical action is as strong in this experiment as it would be if the water were acting upon the deoxydised nucleus of the earth. Iron is much more readily oxydised than the bases of silica and alumina; for in a spongy state it will decompose water, and become redhot on being exposed to the air at common temperatures. We are therefore justified in stating, that we should as soon receive Southey's assertion, that the atmosphere of Elysium and the Fortunate Islands consists of the protoxyde of nitrogen, as this theory for an explanation of volcanic phenomena.

It is but just to those who may support the theory we have attempted to disprove, that we should insert Dr. Daubigny's reply to our objections; but we shall take another opportunity of expressing those opinions which this reply has suggested.

"It has been alleged," says the doctor, "that the two principal constituents of lava, namely, the bases of silica and alumina, are not highly inflammable. Silicon, when perfectly pure, resists a white heat without uniting with oxygen, and aluminium may be boiled in water without decomposing it. But, in the first place, it is rare to meet with these oxydes, without finding them accompanied either with lime or an alkali, and the basis of the former, we have reason, from Davy's experiments, to believe, is highly inflammable; the latter we know to be so.

"Secondly, silicon kindles readily if united with a little hydrogen, or with carbonate of soda: and aluminium, even by itself, burns brilliantly when heated to redness, and dissolves with the evolution of hydrogen, in very dilute solutions of potass.