## C Basis of hornblende or basalt, with imbedded minerals.

- 1. Amphibolite. Basis of hornblende.
- 2. Basanite Basis of compact basalt, with disseminated minerals. (Basalt is viewed as a mixture of augite, olivine, and titaniferous iron.)
- 3. Trappite.—The basis hard and compact, holds mica, felspar, &c.
- Melaphyre, or trap porphyry. The basis is a black petrosiliceous hornblende (by other writers said to be augite), with crystals of felspar.

D. Basis of petrosilex coloured by hornblende.

- 1. Porphyry. Basis a paste red or reddish, with crystals of felspar.
- 2. Ophite. Basis a paste green, with crystals of felspar.
- 3. Amygdaloid.— Holds nodules similar (except in colour) to the basis.
- 4. Euphotide, or diallage rock.— Encloses crystals of diallage.
- E. Basis of petrosilex, or compact felspar.
  - 1. Eurite.— The disseminated minerals are mica, felspar, garnets, &c.
  - 2. Leptenite. Basis of granular felspar with mica and quartz.
  - 3. Trachyte. Encloses crystals of glassy felspar in a dull (earthy) basis.
- F. Basis of claystone (an earthy or granular felspar).
  - 1. Clay porphyry. The enclosed crystals are felspar.
  - 2. Domite porphyry. -- The enclosed crystals are mica.
- G. Basis of pitchstone or obsidian. Stigmite. — Encloses crystals of felspar (pitchstone porphyry of authors).
- H. Base undetermined. Many kinds of lava.

## Gradations among Igneous Rocks.

The rocks of igneous origin exhibit among one another particular relations and gradations, which it is important to attend to before proceeding to discuss some other

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