tered numerous crystals of orthoclase, sometimes also a triclinic felspar, black hornblende and glancing scales of dark biotite. It contains from 55 to 65 per cent of silica, thus differing from quartz-porphyry and felsite in its smaller proportion of this acid. It is also rather more easily scratched with the knife, but except by chemical or microscopical analysis, it is often impossible to draw a distinction between this rock and its equivalents in the acid series.

Orthoclase-porphyry occurs in veins, dikes, and intrusive sheets. Probably many so-called "felstones," whether occurring as lavas or as intrusive masses among the older Palæozoic formations, are really orthoclase-porphyries. Some highly micaceous varieties have been called Mica-trap—a vague term under which have also been included Minettes, Micaceous Quartz-porphyries, etc. The name Lamprophyre, originally given by Gümbel to some mica-traps from the Fichtelgebirge, has been proposed by Rosenbusch as a general term for the Mica-traps, divisible into two groups—the Orthoclastic, or syenitic, where the felspar is orthoclase (Minettes), and the Plagioclastic or dioritic, where the felspar is a plagioclase variety (Kersantites).[182] The lamprophyres occur abundantly as dikes or veins of a fine-grained texture, and dull reddish to brownish color, among the older Palæozoic rocks of Britain.[183]

The orthoclase-porphyry of Pieve in the Vicentin was found by Von Lasaulx to have the following composition:—silica, 61·07; alumina, 18·56; peroxides of iron and manganese, 2·60; potash, 6·83; soda, 3·18; lime, 2·86; magnesia, 1·18; carbonic acid, 1·36; loss, 2·13—specific gravity, 2·59.[184]

Diorite.[185]—Under this name is comprehended a group of

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[182] The typical locality for these rocks is Kersanton in Brittany, where they are dark-green and remarkably durable. A singular vein of kersantite, 3 to 6½ feet broad, has been traced for nearly five miles in the Harz. Lossen, Zeitsch. Deutsch. Geol. Ges. xxxii. (1880) p. 445. Jahrb. Preuss. Geol. Landesanst. 1880. A. von Groddeck, op. cit. 1882. M. Koch, op. cit. 1886. Barrois, Assoc. Française (1880), p. 561; Ann. Soc. Géol. Nord, xiv. (1886), p. 31.

[183] For an account of the Lamprophyres of the classical district of the Plauenscher-Grund, see B. Doss, Tschermak's Mineral Mittheil. xi. (1889).

[184] Zeitsch. Deutsch. Geol. Ges. xxv. p. 320.

[185] On diorite, its structure and geological relations, consult the memoir on Belgian plutonic rocks by De la Vallée Poussin and A. Renard, Mém. Acad. Royale Belg. 1876; Behrens, Neues Jahrb. Min. 1871, p. 460; Zirkel, "Microscopical Petrog." p. 83. J. A. Phillips, Q. J. Geol. Soc. xxxii. p. 155, and xxxiv. p. 471—two valuable papers in which the constitution of some of the "green-