

crystals so formed, which must have constituted a somewhat solid rock, was however completely permeated by the magma (which on account of the crystallization already taken place would frequently have become somewhat more acidic), and with this these crystal-free spaces would naturally have been filled. By continued cooling this magma, beginning at the walls, also crystallized out slowly and uninterruptedly, often mixed with minerals which had been formed by special "agents minéralisateurs"; the conditions of such crystallization proceeding from the walls of the *lumina* inwards, must have been somewhat different from those of the former crystallization which took place within the mass of the whole solidifying rock-matter, where the separate individuals must have crowded upon one another, etc.; hence the ever increasing size of grain, the zonal structure (conditioned by the crystallization from the walls inward), etc. If the magmatic silicate solution were not concentrated to such an extent that the *lumina* were completely filled by its crystallization, first, open drusy cavities must have resulted, which finally through continued circulation might be filled in with minerals deposited from solutions at first still hot but later less and less hot (c.f. the description of the separate phases of vein formation of the veins of the boundary zone on the Langesundfjord, "Die Mineralien der Syenitpegmatitgänge.") The filling up of the drusy cavities corresponds according to this interpretation pretty exactly to the complete vein formation of the pegmatitic veins which occur outside the normal-grained rock mass; the explanation throws light in both cases upon the continuous transition from the rock formed purely by magmatic solidification to the final minerals of the druses deposited from solutions not exactly magmatic (less concentrated).¹

. This successive filling up of the drusy cavities under conditions of formation changing little by little, which in a

¹ The difference between the explanation given above and that of Rosenbusch and others is not so very great, and is, essentially, that I consider the principal filling of the drusy cavities as also the pegmatitic veins to be magmatic, which it will be difficult to deny in face of the totality of the observations given above.