The proportion of the quantities of Silica, Oxyds of Iron, Lime, Magnesia and Alkalies, which were washed out from (1) during its transformation into (2) is therefore the following :

A		Oxygen.	
Silica,	95.58		50.58
Oxyds of Iron,	14.36	4.40	
Lime,	21 41	6.10	
Magnesia,	38.91	15.51	28.65
Potash,	0.56	0.09	
Soda,	9.90	2.55	

The proportion of the quantities of Silica, Oxyds of Iron, &c., which were washed out from (2) during its transformation into (3), is as follows :

B		Oxygen.	
Silica,	106 12		56.13
Oxyds of Iron,	25.12	7.53	
Lime,	21.13	6.03	
Magnesia,	2.28	0.91	19.96
Potash,	3.36	0.57	
Soda,	19.07	4 92	

By subtraction of the quantities given in (3) from those in (1), we get the whole quantity of substances, which were washed away during both periods of degradation. Hence it follows the following composition in per cent. :

C		Oxygen.	
Silica,	56.		29.1
Oxyds of Iron,	11.5	3.5	
Lime,	11.9	3.4	
Magnesia,	11.6	4.3	13.5
Potash,	1.	0.2	
Soda,	8.	2.1	
	100.0		

It will be seen that with advancing degradation the quantities of Silica and Lime decrease in a constant proportion, which is however not the case with Magnesia and Alkalies ; the former has been washed out almost entirely during the transformation of (1) into (2); whilst the greatest part of the latter had not disappeared till the transformation of (2) into (3) took place, consequently during the second period of degradation. The proportion between the quantity of Oxygen in the bases to that in the Silicic acid is