

Hyperammina friabilis.

Silica,	93.63
Ferric oxide,	2.02
Carbonate of lime,	3.95
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	99.60

On the other hand, some of the smaller specimens of *Hyperammina elongata* have finely cemented tests, resembling *Trochammina* in their compact texture and smooth or sometimes polished exterior.

Fragments of the gigantic *Syringammina* were found on analyses to contain more than 35 per cent. of carbonate of lime, notwithstanding the loose friable consistence of the test. Further examination, however, showed that this was due to the presence of large numbers of the minuter Foraminifera amongst the sand of which it was built, and not in any great degree to secreted calcareous matter.

The chemical features of the LITUOLIDÆ have only been investigated so far as concerns two species, *Haplophragmium latidorsatum*¹ and *Cyclammina cancellata*, the analyses of which gave the following figures:—

	<i>Haplophragmium latidorsatum.</i>	<i>Cyclammina cancellata.</i>
Silica,	76.1	84.8
Ferric oxide, with a little alumina,	16.3	9.4
Carbonate of lime,	7.3	5.5
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	99.7	99.7

The proportion of alumina in both cases was too small to be worth separate estimation, and was probably due to traces of adherent foreign matter.

From these determinations it is evident that, in a considerable section of the arenaceous genera, whether ASTRORHIZIDÆ or LITUOLIDÆ, the substance secreted by the animal for the incorporation of foreign bodies in the construction of the test, is composed of ferric oxide and carbonate of lime in variable proportions, the former being often in considerable excess. There are some cases, however, for example the large specimens of *Reophax nodulosa* described at page 294, in which after careful treatment with acids, under conditions to ensure the complete removal of ferruginous and calcareous constituents, the test is not disintegrated but retains its form, the sand-grains of which it is built still cohering with sufficient firmness to admit of the specimen being freely handled. Seeing that this occurs in dead and empty tests, it can scarcely be attributed to any remaining organic matter, so that it is probably due to the presence of small quantities of silica, free or combined, as an element of the cement. The fact that there are a few species which, in the absence of siliceous material, form their tests of calcareous sand,

¹ The *Lituola subglobosa* of M. Sars.