

The intergranular matrix is very varied; all of it is probably derived from deformed, possibly recrystallised, lithic material. A fine-grained mass of broken quartz fragments, clays and granules of carbonate is most abundant and generally has a grain size of the order of 0.05-0.1 mm. Carbonate is present as distinctly brown idiomorphic and sub-idiomorphic grains approximately 0.02-0.04 mm across which have grown in the matrix and have replaced a little of the quartz grains. The intergranular material appears to consist of the whole range of matter from genuine pore-filling matrix to practically undisturbed rock fragments - in a highly-deformed rock such as this it is hardly surprising that the matrix should reflect the effects of several processes which have operated to varying degrees.

'Rouleaux' of kaolinite/dickite were noted in a few intergranular spaces.

Opaques are present in curved seams which are probably microstylolites; these are only of limited extent and dissolution of quartz was probably widespread, rather than having been concentrated in a few stylolitic zones.

Considering the amount of compaction, the rock contains numerous voids. Most are 0.2-0.5 mm across and are possibly interconnected over short distances.

This rock has suffered extreme deformation, presumably due to compaction. Sutured grain boundaries and internal mortar textures are unusually abundant.

Sample: 10072' : TS C7863

Rock Name:

Coarse ferruginous sandstone

Thin Section:

An optical estimate of the constituents gives the following:

BASIC