whenever it becomes necessary to have the option for traversing any direction in a mounted sample.

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Reference

SMITH (C. S.) and GUTTMAN (L.), 1953. Trans. Amer. Inst. Min. Eng., Journ. Metals, vol. 197, pp. 81–87.

A continuous density separator for mineral separation

A CONTINUOUS density separator in which the heavy liquid is recirculated by an air jet has been described by Jones (1965). We have found that a cheap electrically driven centrifugal pump instead of the airlift system gives a more easily constructed and more easily managed separator.

Our construction is shown in fig. 1. The feed hopper is of the type as described by Faul and Davis (1959). The separating vessel is made from a standard separating funnel equipped with an overflow tube. The light fraction is collected in a funnel fitted with sieve cloth with a suitable mesh size. The heavy fraction must be drained off at intervals. The pump used is made by Heidolf and has a maximum capacity of 1·5 litres per minute. The flow of the liquid is controlled by a pinchcock on the P.V.C. tube leading from the pump to the mixing funnel. The separator has given satisfactory results with mineral grains in the 100– to 200-mesh size-fraction.

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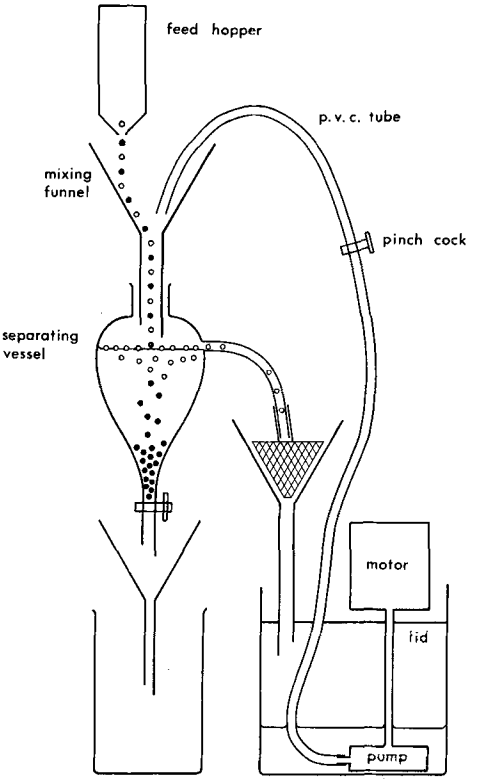

FIG. 1.

References

FAUL (H.) and DAVIS (G. L.), 1959. Amer. Min., vol. 44, p. 1076.
JONES (M. P.), 1965. Min. Mag., vol. 35, p. 536.

[*Manuscript received 22 November 1967*]

Computer programmes for the calculation of Niggli values, C.I.P.W. norms, and variation diagram data

A SET of programmes for the calculation of Niggli values, the C.I.P.W. norm, and variation diagram data have been written in Fortran II.