

$K(\text{P}_2\text{O}_5) = 0.170$ gives a density of 3.26 for the Huddersfield apatite, and it gives a better agreement between the measured and calculated densities in Deer, Howie & Zussman. It is therefore suggested that $K(\text{P}_2\text{O}_5) = 0.170$ be used when applying the rule of Gladstone and Dale. Young & Munson (1966) also suggested that the K -value for P_2O_5 in Larsen & Berman (1934) is too high.

Initially the work on the Huddersfield apatite was done to establish a phosphate standard for our microprobe laboratory. As a result about 15 grams of the analyzed crystal are available for exchange with interested laboratories for other standards.

REFERENCES

- BOYD, F.R., FINGER, L.W. & CHAYES, F. (1969) : Computer reduction electron-probe data. *Carnegie Inst. Wash. Yearbook* **67**, 210-215.
- DEER, W.A., HOWIE, R.A. & ZUSSMAN, J. (1962) : *Rock-Forming Minerals*. **5**, John Wiley & Sons, New York.
- HILDEBRAND, W.F., LUNDELL, G.E.F., BRIGHT, M.S. & HOFFMAN, J.I. (1953) : *Applied Inorganic Analysis*. John Wiley & Sons, New York.
- JAFFE, H.W. (1956) : Application of the rule of Gladstone and Dale to minerals. *Amer. Mineral.* **41**, 757-777.
- KRETZ, R. (1957) : Litchfield-Huddersfield area, Pontiac electoral district. *Quebec Dept. Mines PR.* **338**.
- LARSEN, E.S., & BERMAN, H. (1934) : The microscopic determination of the nonopaque minerals. *U.S. Geol. Surv. Bull.* **848**, 30-32.
- McCLELLAN, G.H. & LEHR, J.R. (1969) : Crystal-chemical investigation of natural apatite. *Amer. Mineral.* **54**, 1374-1391.
- SABINA, A. (1964) : Rocks and mineral collecting in Canada : Ontario and Quebec. *Geol. Survey Can., Misc. Rpt* **8**.
- SHAW, D.M. (1958) : Radioactive mineral occurrences of the Province of Quebec. *Que. Dept. Mines G. R.* **80**.
- STEWART, D.B., KRUGER, G.J., AMMON, H.L., DICKINSON, C. & HALL, S.R. (1972) : The X-ray system. *Tech. Rpt TR-192*, Computer Science Center, Univ. Maryland, College Park, Maryland.
- YOUNG, E.J. & MUNSON, E.L. (1966) : Fluor-chloroxy-apatite and sphene from Crystal Lode pegmatite, near Eagle, Colorado. *Amer. Mineral.* **51**, 1476-1493.

Manuscript received November, 1973.

NOTICES

THE MINERALOGICAL SOCIETY OF GREAT BRITAIN & IRELAND

invites application for membership from Canadian mineralogists and petrologists.
Ordinary Members receive

MINERALOGICAL MAGAZINE (four issues a year)

MINERALOGICAL ABSTRACTS (four issues a year, plus Index number)

CLAY MINERALS (two issues a year)

for an annual subscription of £9.00 (approx. \$21.60), and may purchase Monographs at reduced prices.

Special terms for research students.

For a prospectus and application form, please write to :

The General Secretary, Mineralogical Society, 41, Queen's Gate, London,

SW7 5HR, England.

THE CANADIAN MINERALOGIST **(quarterly)**

The Canadian Mineralogist is published quarterly (February, May, August, November). Manuscripts from residents or non-residents of Canada, on subjects of general interest in CRYSTALLOGRAPHY, GEOCHEMISTRY, PETROLOGY and MINERALOGY will be considered for publication. Please submit manuscripts to either editor :

Dr. L.G. Berry, Miller Hall, Queen's University,
Kingston, Ontario K7L 3N6

Dr. J.L. Jambor, Geological Survey of Canada,
601 Booth Street, Ottawa, Ont. K1A 0E8

The desire of the Mineralogical Association of Canada is to increase the number of petrological and geochemical papers published in the journal. An issue devoted to the St. John's, Newfoundland, MAC symposium on "Low-Grade Metamorphism" is planned.
