$Li_2O$ tr.; $H_2O$ + 110° 12·45; $H_2O$ −110° 3·3; $TiO_2$ n.f.; $P_2O_5$ 0·01; MnO n.f., $CO_2$ n.f. Spectrographic analysis: Ag 0·015; Pb 0·015; Sn <0·01; Ba 0·05. Not detected: V, Cd, As, Be, Zn, W, Mo, Ni, Cr, Co, Bi, Sb, B, La, Yt, Ce. Total: 99·44. J. A. Ritchie *anal.*, s. g. 2·23 ± 0·01.

Structural formula: $(Ca_{2\cdot9}Sr_{0\cdot5}Na_{1\cdot5}K_{0\cdot5})Al_{9\cdot2}Si_{26\cdot8}O_{72}.24{\cdot}8H_2O$ in satisfactory agreement with that of Hey and Bannister (1934) and Appendix C above.

Refractive indices variable, $\alpha$ 1·500–1·505 ± 0·001, $\beta$ 1·500–1·506 ± 0·001, $\gamma$ 1·506–1·512 ± 0·002.

*Prehnite*

Locality: Prospect Quarry, New South Wales. Large, transluscent, very pale green botryoidal masses in cavities in dolerite. Average of comparable analyses by A.M.T. and by J. A. Ritchie, Dominion Laboratory, Wellington: $SiO_2$ 43·7; $Al_2O_3$ 24·05; $Fe_2O_3$ 0·93; FeO 0·03; MgO 0·11; CaO 26·85; $Na_2O$ 0·04; $K_2O$ n.f.; $Li_2O$ n.f.; $H_2O$ + 110° 4·54; $H_2O$ −110° 0·03; $TiO_2$ tr.; $P_2O_5$ 0·02; MnO n.f.; $CO_2$ n.f.; Spectrographic analysis (Dominion Laboratory): Ag 0·01; Pb 0·04; SnO 0·01; BaO <0·003. Not detected: V, Cd, etc., as above. Total: 100·36; s. g. 2.93.

Formula on basis of eleven oxygen atoms:
$(Ca_{1\cdot98}Mg_{0\cdot01}Na_{0\cdot01})(Al_{1\cdot95}Fe_{0\cdot05})Si_{3\cdot01}O_{11}.1{\cdot}04H_2O$ in very close agreement with the conventional formula $Ca_2Al_2Si_3O_{10}(OH)_2$. $\alpha$ 1·615 ± 0·001; $\beta$ 1·624 ± 0·001; $\gamma$ 1·643 ± 0·002; $\gamma-\alpha$ 0·028; $2V_\gamma$ 69° ± 2° $r > v$ strong.

As is common in prehnite from such environments, and in contrast to the prehnite described in Section 2 above from the New Zealand greywackes, basal sections show complex lamellar twinning, and when thick, anomalous interference tints and incomplete extinction.

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