NEW MINERAL NAMES

Rankinite


Name: For G. A. Rankin, formerly physical chemist at the Geophysical Laboratory, who, with E. S. Shepherd and F. E. Wright, studied the systems CaO-SiO₂ and CaO-Al₂O₃-SiO₂ and first found the compound.

Chemical Properties: The composition is Ca₃SiO₇. Insufficient material was available for quantitative analysis, identification being based on optical properties and microchemical tests. Gelatinizes readily in weak HCl-H₂SO₄ solutions, precipitating abundant gypsum. Contains no Mg nor Al. Unaffected by prolonged heating at 1100°. Melts incongruently at 1475°.

Optical Properties: Monoclinic, α = 1.640–1.641, β = 1.644, γ = 1.650, 2V, 64°, positive; b = β, α: edge of (001) = 15°. These data agree with those given by Gordon (Am. Mineral., 8, 110 (1923) on crystals from slag.

Occurrence: Found in two associations at Scawt Hill, Ireland; (a) as rounded or irregular grains in melilite rocks, associated with larnite or wollastonite in melilite, and (b) at the contact of flint nodules in metasomatized limestone, as a narrow zone of crystals separating wollastonite and larnite. Artificial material is also described from blast-furnace slag and from limestone xenoliths in glass from a bottle factory.

Michael Fleischer

Correction

On page 619, Table 1, line J, in the column on observed epsilon index, the value 1.695 is that of epsilon prime rather than epsilon.