Analyses of orthoclase from Buckingham.

Silica	63·690
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Potash	12·752
Soda	3·106

27. *Orthoclase.*

This felspar is the predominating constituent of the granitoid quartzo-felspathic rock occurring in connection with the vein of graphite on the twenty-seventh lot of the sixth range of Buckingham.

The rock is composed of orthoclase, small quantities of colourless, translucent quartz and dark olive-green pyroxene, with a little clove-brown, subtranslucent sphene and an occasional crystal of pale wine-red, subtranslucent zircon.

This feldspar has a hardness a little above 6. Specific gravity 2·5780. Colour pale violet-grey. Lustre vitreous. Subtransparent. Two distinct cleavage planes meeting at the angle 90°. Fracture uneven. Before the blowpipe in fine splinters it fuses (at about 5) on the edges to a semi-transparent vesicular glass. Carefully selected material dried at 100° C., gave :—

Silica	63·460
Alumina	18·780
Sesquioxide of iron	0·394
Protoxide of manganese	trace.
Lime	1·280
Magnesia	0·216
Potash	13·923
Soda	2·173
Loss by ignition	0·466
	100·692

Oxygen ratio of R O : $R_2 O_3$: $Si O_2$ = 1 : 2·62 : 10·02.