

25. *Orthoclase.*

From the twenty-seventh lot of the sixth range of Buckingham.

Analyses of  
orthoclase from  
Buckingham.

The mode of occurrence of this felspar has been referred to under analysis 16. It was intimately associated with calcite and small quantities of an almost colourless translucent quartz.

Hardness 6. Specific gravity 2.5364. Colour white. Lustre vitreous. Translucent. Two distinct cleavage planes meeting at the angle  $90^\circ$ . Fracture uneven. Before the blowpipe in fine splinters it fuses (at about 5) on the edges to a semi-transparent vesicular glass.

The material employed for analysis was very carefully selected; after drying at  $100^\circ$  C. its composition was found to be as follows:—

|                              |        |
|------------------------------|--------|
| Silica .....                 | 64.140 |
| Alumina .....                | 18.620 |
| Sesquioxide of iron .....    | 0.374  |
| Protoxide of manganese ..... | trace  |
| Lime .....                   | 0.740  |
| Magnesia .....               | 0.065  |
| Potash .....                 | 14.868 |
| Soda .....                   | 1.766  |
| Loss by ignition .....       | 0.406  |

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100.979

Oxygen ratio of  $\text{R O} : \text{R}_2 \text{O}_3 : \text{Si O}_2 = 1 : 2.73 : 10.63$ .

26. *Orthoclase.*

From the twenty-second lot of the seventh range of Buckingham.

It is the principal gangue of the greater number of the true veins of graphite in the Townships of Buckingham and Templeton. Authority, Mr. H. G. Vennor. The felspar was associated with a very small quantity of colourless translucent quartz.

Hardness slightly above 6. Specific gravity 2.5796. Colour pearl-grey. Lustre vitreous. Sub-transparent. Two distinct cleavage planes meeting at the angle  $90^\circ$ . Fracture uneven. Before the blowpipe in fine splinters it fuses (at about 5) on the edges to a semi-transparent vesicular glass.

The material employed for analysis was carefully selected; after drying at  $100^\circ$  C., it was found to contain:—