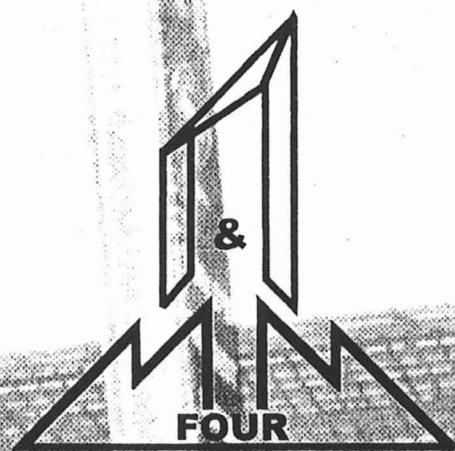


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Phosphuranylite from Minas Gerais, Brazil and its identity with yingjiangite

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The mineral specimen was found at the locality of S.Geraldo do Baixio, Minas Gerais, Brazil, as minute rectangular plates and laths coating cavities in the weathered zone of a uraniferous granite pegmatite.

In transmitted light the crystals show golden yellow colour and weak pleochroism slightly accentuated in Y and Z.

They are length-slow and have $Z \parallel c$. Other optical constants: $n_x = 1.660(2)$, $n_y = 1692(2)$, $n_z = 1.705(2)$, $2V_x = 54(2)^\circ$, $r > v$ strong, inclined. The three strongest diffraction lines found are: 3.990 (100), 8.055 (60) and 3.182 (20)

Chemical analysis in progress already confirm the following composition: hydrated phosphate of calcium and uranium, with a small and not yet defined amount of potassium.

Yiangjiangite was described by Chen *et al.* (1990) as $(K,Ca)(UO_2)_3(PO_4)_2(OH) \cdot 4H_2O$, differing from phosphuranylite only by the presence of K. At the time the formula proposed for phosphuranylite had no K. Nevertheless, on the basis of more accurate crystal study of this mineral, Demartin *et al.* (1991) obtained the chemical formula $KCa(H_3O)_3(UO_2)_7(PO_4)_4 \cdot 8H_2O$.

Optical, chemical and X-ray diffraction data for yiangjiangite and phosphuranylite are virtually identical. As the name phosphuranylite has priority, the name of yiangjiangite should be discarded.

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