



Departamento de Mineralogía y Petrología
Universidad de Granada

**THE GREDOS SECTOR OF THE AVILA BATHOLITH,
CENTRAL IBERIA: AN INTRODUCTION**

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Fernando Bea, Pilar Montero, Jane H. Scarrow and José F. Molina

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GEOCHEMISTRY OF GRANITIC ROCKS AND THEIR FELDSPARS AND MICAS -FROM SEGURA, CENTRAL PORTUGAL

I.M.H.R. ANTUNES⁽¹⁾, A.M.R. NEIVA⁽²⁾, M.M.V.G. SILVA⁽²⁾

⁽¹⁾ POLYTECHNIC INSTITUTE OF CASTELO BRANCO, QUINTA DA SENHORA DE MÉRCELES, 6000 CASTELO BRANCO, PORTUGAL. imantunes@esa.ipcb.pt

⁽²⁾ DEPARTMENT OF EARTH SCIENCES, UNIVERSITY OF COIMBRA, LARGO MARQUÊS DE POMBAL, 3000 COIMBRA, PORTUGAL

Several types of Hercynian peraluminous granitic rocks occur at Segura. The tin-bearing two-mica granite, muscovite granite, aplite veins and granitic pegmatite veins intruded the Cambrian schist-metagraywacke complex. Aplite veins also intruded the granites. Granodiorite porphyry veins intruded the complex. Variation diagrams of most major and trace elements of the rocks show fractionation trends from muscovite granite to aplite and Sn content increases. K-feldspar and albite from muscovite granite and aplite veins show the highest P₂O₅ contents, but K-feldspar retains more phosphorous than coexisting albite. Two-mica granite and muscovite granite are probably originated from two distinct granite magmas derived by partial melting of heterogeneous metasedimentary materials.

The compositions of biotites from two-mica granite and granodiorite porphyry veins confirm that these rocks are not related. Variation diagrams of major elements of magmatic muscovites from two-mica granite and Li-Sn bearing granitic pegmatite veins show fractionation trends. Lepidolite from granitic pegmatite veins is richer in Si, F, Rb and poorer in Al^{IV}+Al^{VI} than the magmatic muscovite that it partially replaces and a gap was found between both compositions.

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