FLUORINE AS A TOOL IN GEOCHEMICAL EXPLORATION

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Fluorine - a gaseous reactive element is a good indicator of mineralization (Rupasinghe et al, 1984; Dissanayake and Weerasooriya, 1986). Fluorine chemistry of granitic material is relevant to economic prospecting in granitic terrains, since fluorine is associated with tin - tungsten - molybdenum deposits, the rare earth elements, zirconium-beryllium deposits and lithium-rubidium-caesium pegmatities (Bailey, 1977). A number of researchers (e.g. Parry, 1972; Fuge & Andrews, 1986) have suggested that other halogens, Cl and I may also have potential as pathfinder elements in geochemical prospecting programmes.

200 groundwater samples from a mineralized area around Rattota - Matale areas were studied for their fluoride concentraitons, using an Orion model specific ion electrode. Fluoride contents ranged from 0.01 to 2.0 ppm, and showed dispersion patterns associated with mineralization, particularly in the topaz ($Al_2F_2Sio_4$) bearing regions. This indicates the potential use of fluorine in mineral exploration in Sri Lanka.

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