

BIOGEOCHEMICAL PROCESSES IN A MOUNTAIN FOREST ENVIRONMENT

G. KARABEROU and S.P. VARNAVAS

Department of Geology, University of Patras

E-mail: S.P.Varnavas@upatras.gr

EXTENDED ABSTRACT

Field observations in the forest cluster of Oeti- Giona and Parnassos Mountains showed intensive chlorosis phenomenon on the *Abies Cephalonica*.

An attempt has been made to investigate this phenomenon in relation to the geological setting, rock types, substrate, soil conditions (chemical weathering, pH). pH measurements of the soil samples showed that the soil of the investigated area vary from slightly acid to alkaline. However, the majority of the soils studied are alkaline. Such an environment may lead to poor nutrition of the trees. The presence of bauxite deposits in the area may lead to desperation of toxic metals in the soils which at least ,in the slightly acid soils, may be incooperated in the roots of the trees playing an important role in the chlorosis of the trees. These phenomena will be investigated further.

Key words: forest quality, forest geochemistry, soil chemistry, chlorosis, soil pH