Schwarcz_hp-1960

Fig. 2

Metamorphism in the Winchester-Hemet Area Riverside Co., California

Legend

1. Metamorphic zones

The zones are defined on the basis of mineral assemblages within the pelitic schists where the assemblage may be inferred to have been in equilibrium:

1 — Muscovite Zone: muscovite-biotite-quartz-K-feldspar-oligoclase (-chloritoid)

2 — Andalusite Zone: andalusite-biotite-K-feldspar-quartz-oligoclase (-cordierite)

3 — Sillimanite Zone: sillimanite-biotite-K-feldspar-quartz-oligoclase (-cordierite)

4 — Almandine Zone: almandine-sillimanite-biotite-K-feldspar-oligoclase-quartz

Muscovite is locally present in pelitic schists of all zones, though above zone 1 it is largely retrograde. For fuller description of metamorphic zones, see text.

2. Observed critical minerals

Om — Mineralogy observed in thin-section

m — Mineralogy observed in outcrop (partially indicated)

Pelitic schists	Amphibolites ("A. ")	Calcareous quartzites ("C. ")
m muscovite	h hornblende (indicated where no other mafic phase occurs).	e epidote
a andalusite	cp clinopyroxene	cp diopside
s sillimanite	g pyralspite garnet	h amphibole
co cordierite		g ugrandite garnet
ch chlorite		w wollastonite
g pyralspite garnet		

⊕ Location of muscovite samples used to determine minimum temperatures of last recrystallization.

B4 — Location of chemically analyzed specimen of sub-unit fvB4 of the French Valley formation.

3. Igneous rocks

Kia — Older foliated rocks, concordantly intruded: Kim, Kb, Kwm and, in part, Ksm

Kib — Younger unfoliated rocks, discordantly intruded: Ksm and Kdv

D — banded gneiss: formed by metamorphic differentiation (fvC7d shown separately on geologic map)