

This pdf file consists of figures containing photographs, and their captions,
scanned from:

PROGRESSIVE METAMORPHISM OF PELITIC SCHISTS FROM THE
TRI-STATE, MA, CT and NY, AREA: A FIELD AND
THEORETICAL ANALYSIS OF GARNET + CHLORITE +
CHLORITOID + BIOTITE ASSEMBLAGES

by

Ping Wang

A Dissertation

Submitted to the State University of New York at Albany

in Partial Fulfillment of

the Requirements for the Degree of

Doctor of Philosophy

College of Science and Mathematics

Department of Geological Sciences

1989

Table 1. Abbreviation of mineral symbols

abbr.	mineral
Ab	albite
Alm	almandine
An	anorthite
Ad	andalusite
Ann	annite
As	aluminum silicates
Bi	biotite
Cc	calcite
Cd	cordierite
Cela	Celadonite
Ch	chlorite
Ct	chloritoid
Ep	epidote
Ga	garnet
Grs	grossular
Hem	hematite
Ilm	ilmenite
Ksp	potassium feldspar
Ky	Kyanite
Mu	muscovite
Mt	magnetite
Pg	paragonite
Phl	phlogopite
Pl	plagioclase
Prl	pyrophyllite
Pyp	pyrope
Qz	quartz
St	staurolite
Sil	sillimanite
Sps	spessartine
Tur	tourmaline
W	water
Zrn	zircon

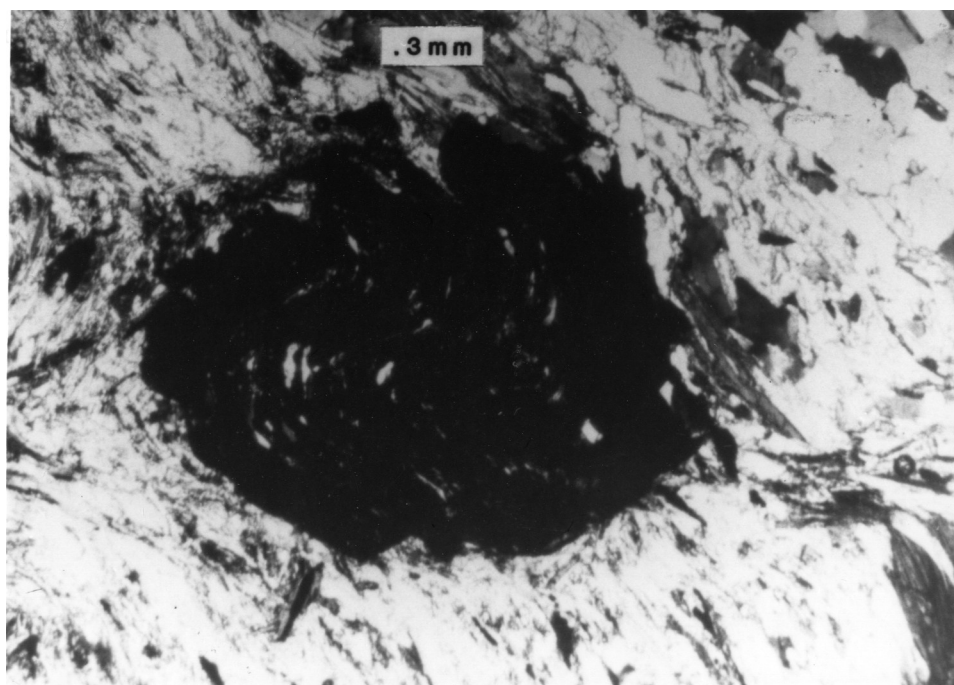


Plate 1. Garnet porphyroblast has quartz and muscovite inclusions which are parallel to the foliation of the matrix, showing the post-kinematic growth of garnet.

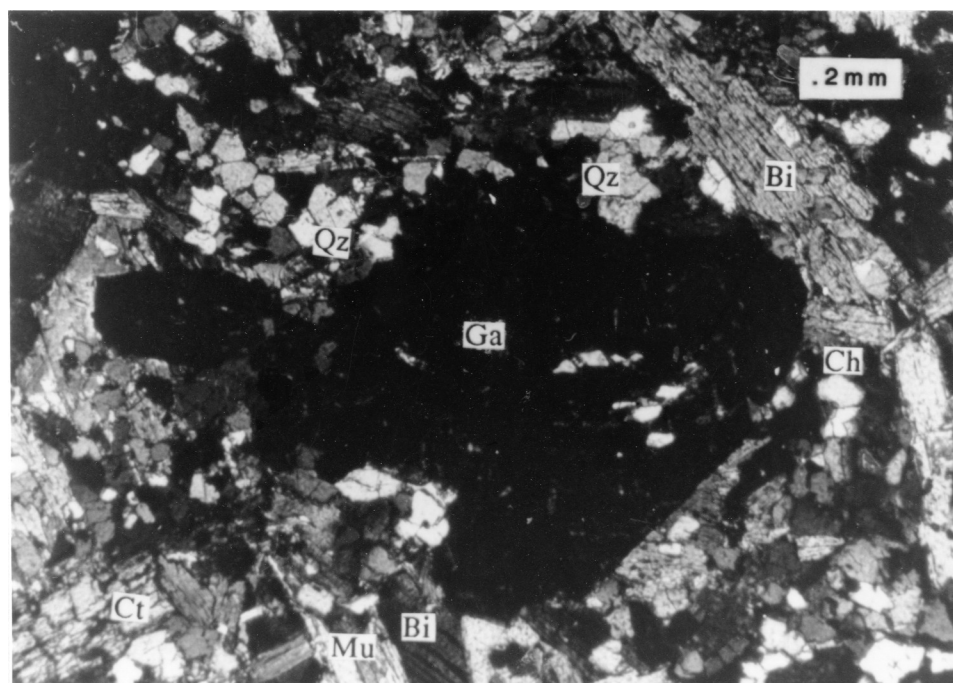


Plate 2. Subhedral garnet prophyroblast has euhedral outline where in contact with biotite, muscovite, chlorite and chloritoid (the latter is not shown), and anhedral where in contact with quartz aggregates (sample 282-2).

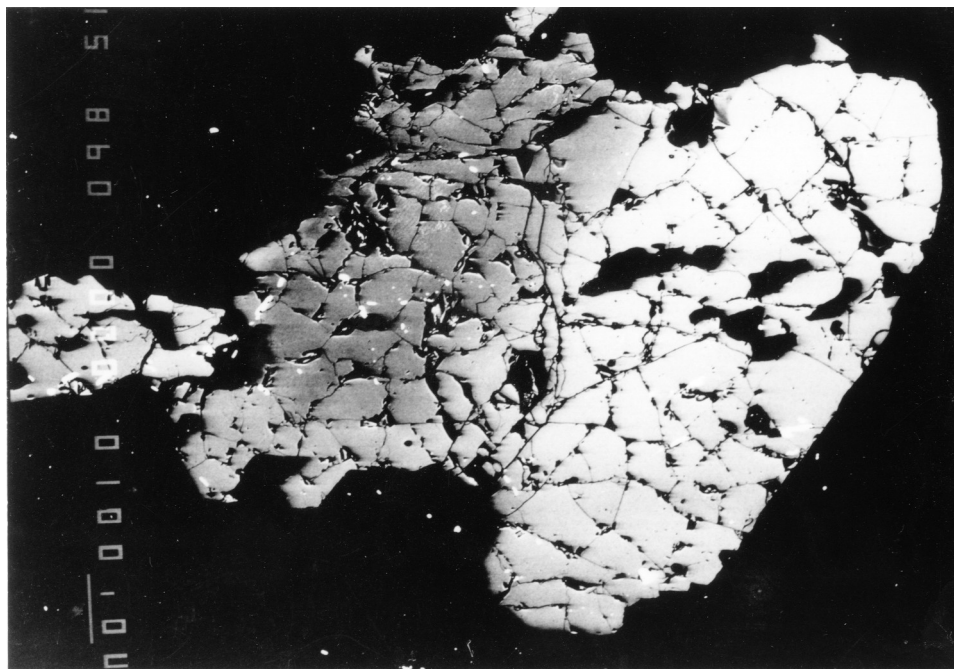


Plate 3. Backscattered electron image of garnet showing that the asymmetrically grown garnet has a core (dark) with very different composition from the rim (bright). (sample 282-2)

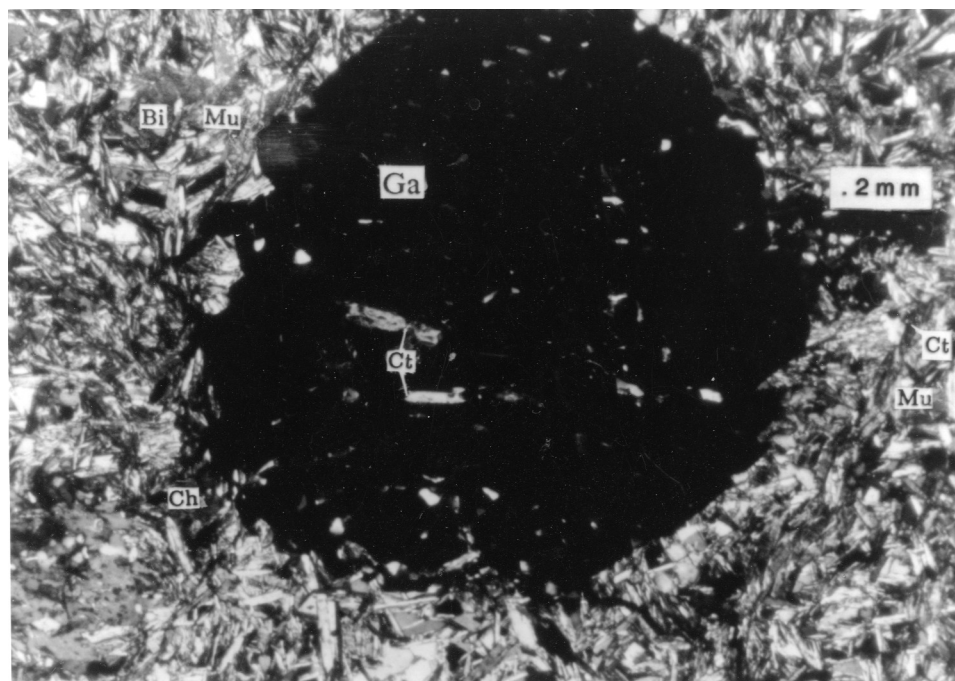


Plate 4. Porphyroblastic garnet with chloritoid and quartz inclusions (sample 106-3). Some of chloritoid inclusions are corroded.

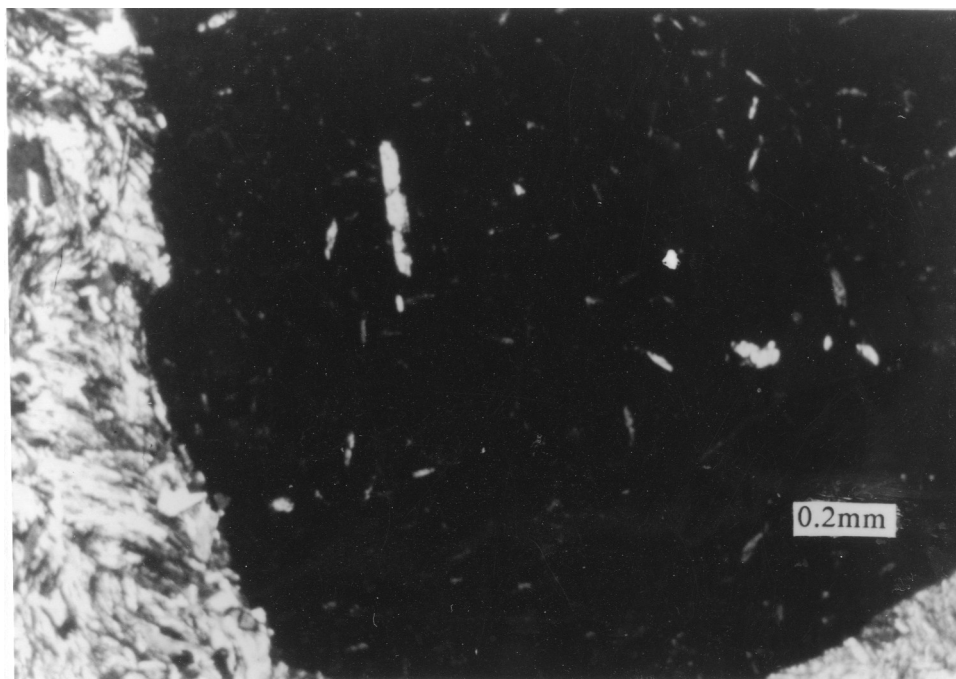


Plate 5 Photomicrograph of garnet in the assemblage Ga+Ch+Ct+St from the lower Ga-Ch-Ct-St zone (sample 111-1).

The garnet has many chloritoid inclusions.

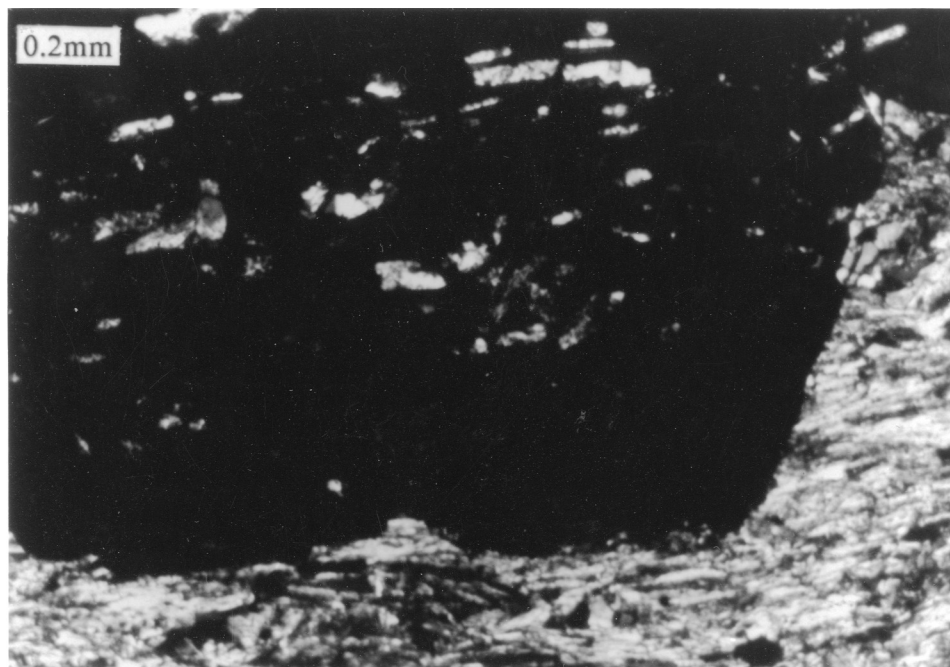


Plate 6 Photomicrograph of garnet in the assemblage Ga+Ch+Ct+St from the higher Ga-Ch-Ct-St zone (sample 103-4), showing that the garnet has many chloritoid inclusions at the core, but very few inclusions at the rim.

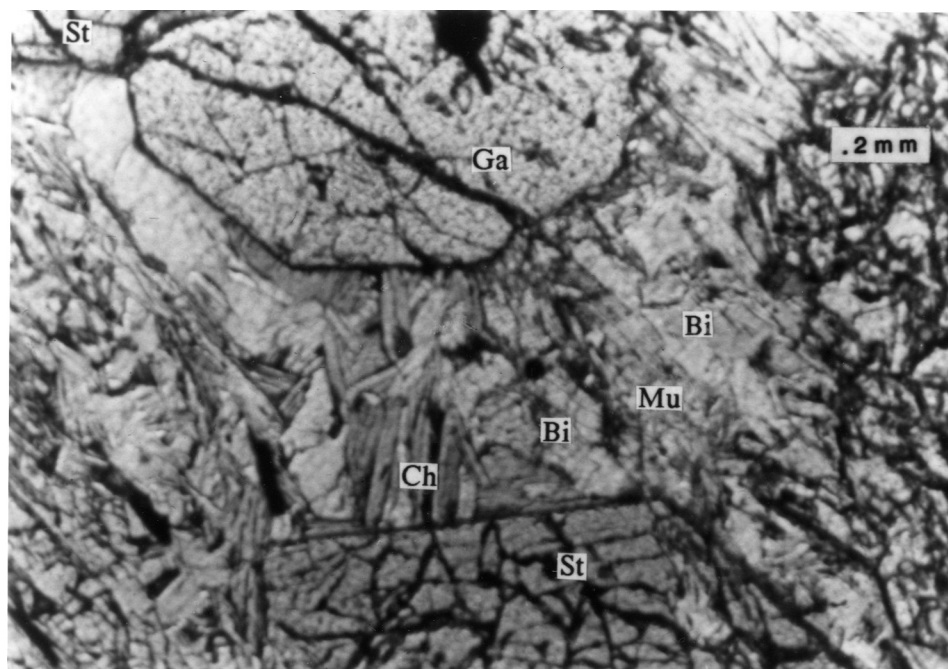


Plate 7 Texture of the assemblage Ga+Ch+Bi+St in the lower Ga+Ch+Bi+St zone (sample 444-14), showing a slight corrosion of garnet.

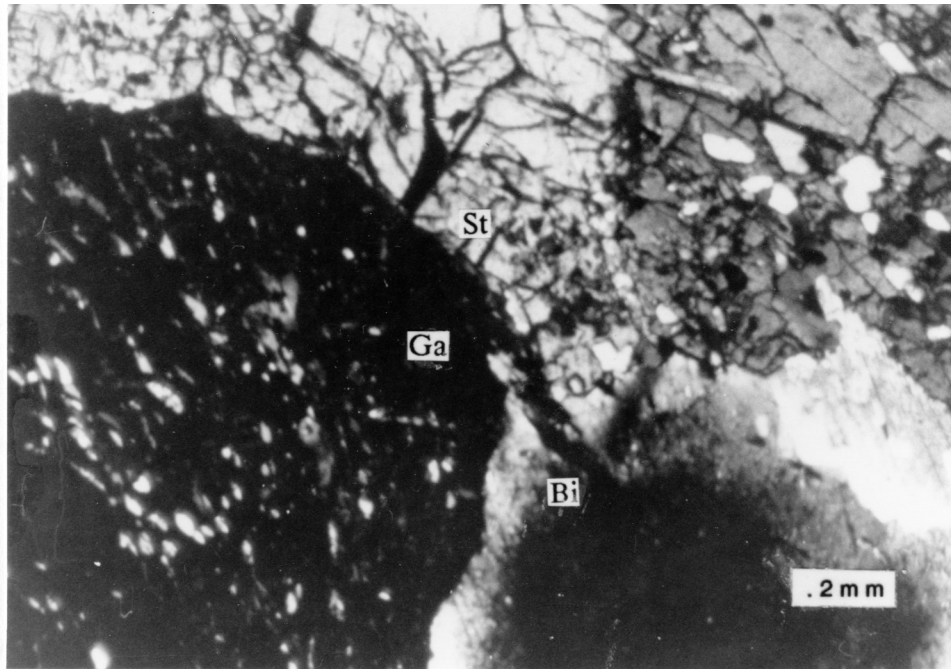


Plate 8 Texture of the assemblage Ga+Ch+Bi+St in the higher Ga+Ch+Bi+St zone (sample 124-1), showing an evident corrosion of garnet where in contact with biotite and staurolite. Muscovite and chloritoid are replaced by biotite and staurolite.