



Determinazione del grado metamorfico del complesso di Cima Dura (alpi orientali, BZ) mediante la cristallinità della grafite

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Relatore: Prof. Raffaele Sassi

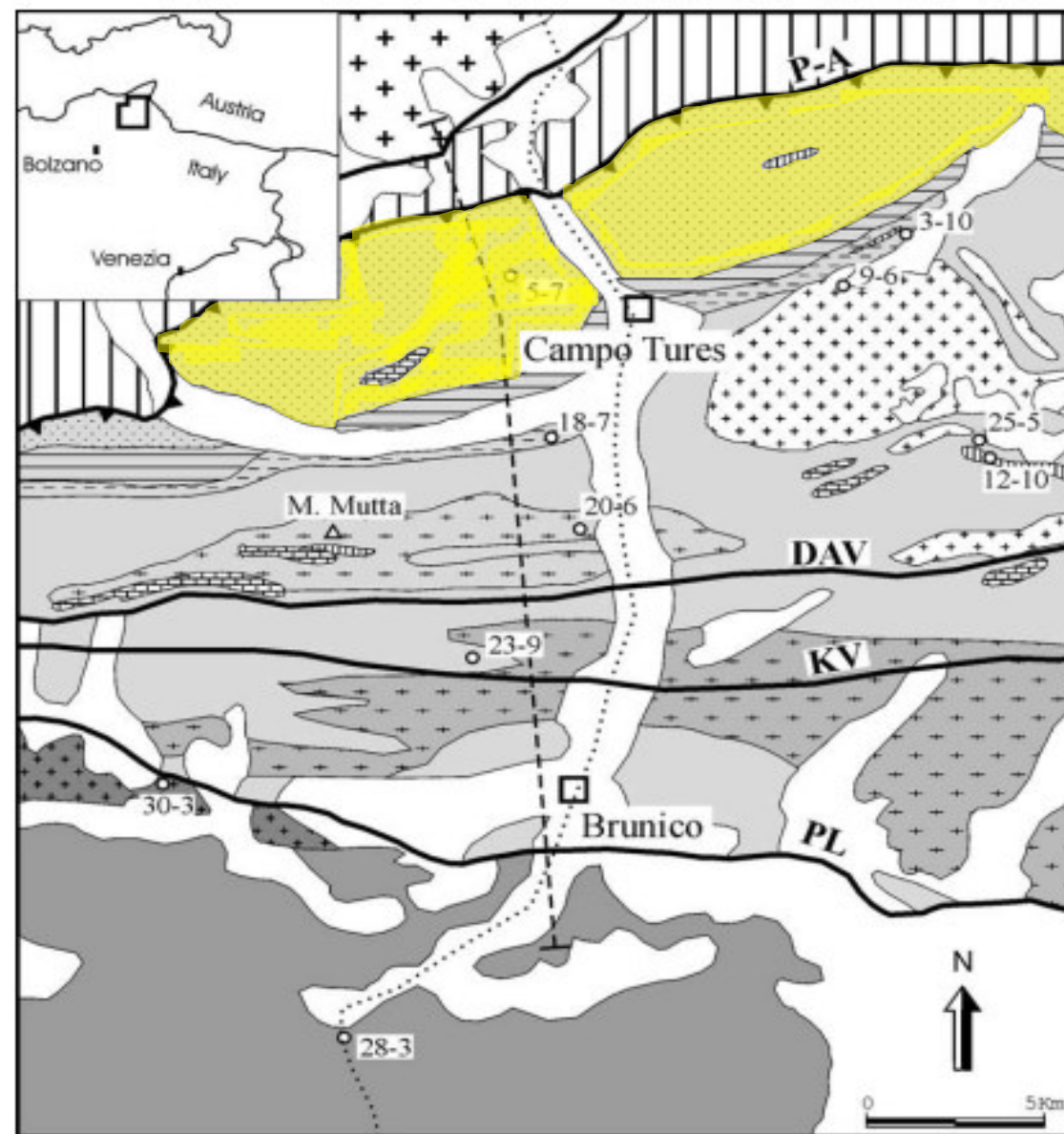
Correlatori: Prof. Claudio Mazzoli,

Dott.ssa Lisa Santello

SOMMARIO

- Obiettivo della tesi
- Area di studio e litologie
- Grafite
- La spettroscopia Raman
- Risultati
- Conclusioni

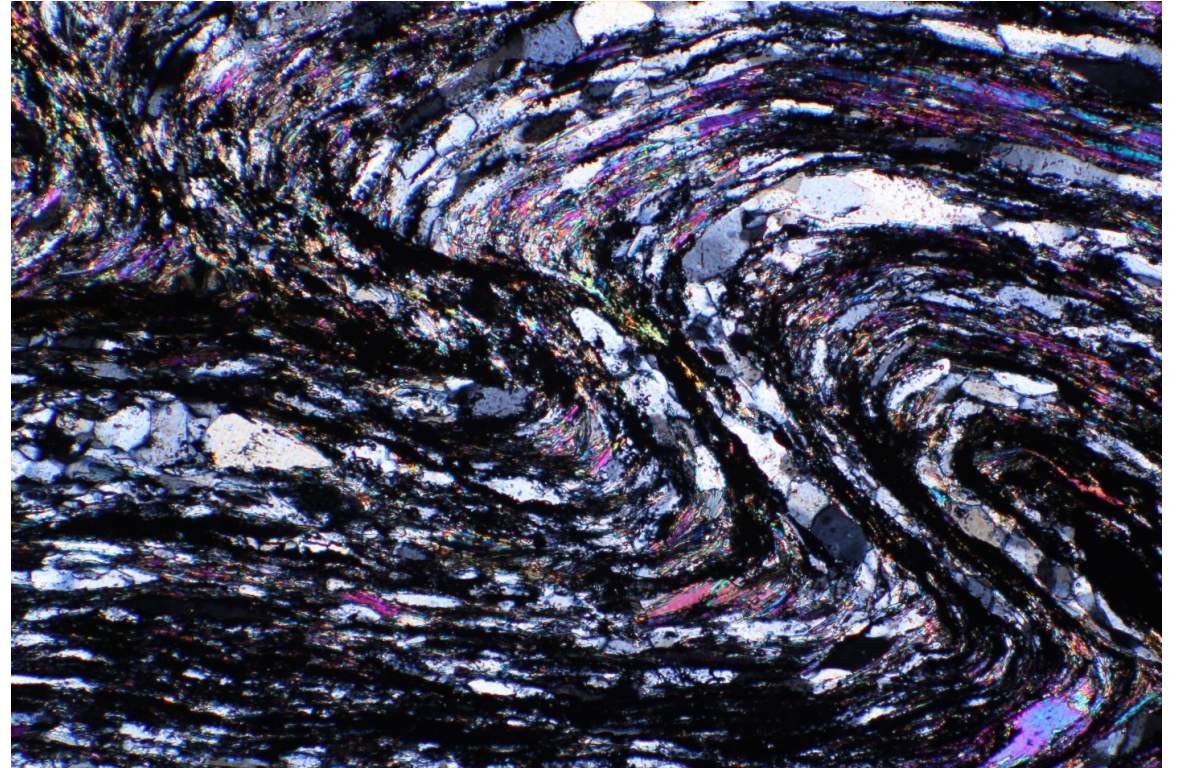
OBIETTIVO DELLA TESI e AREA DI STUDIO



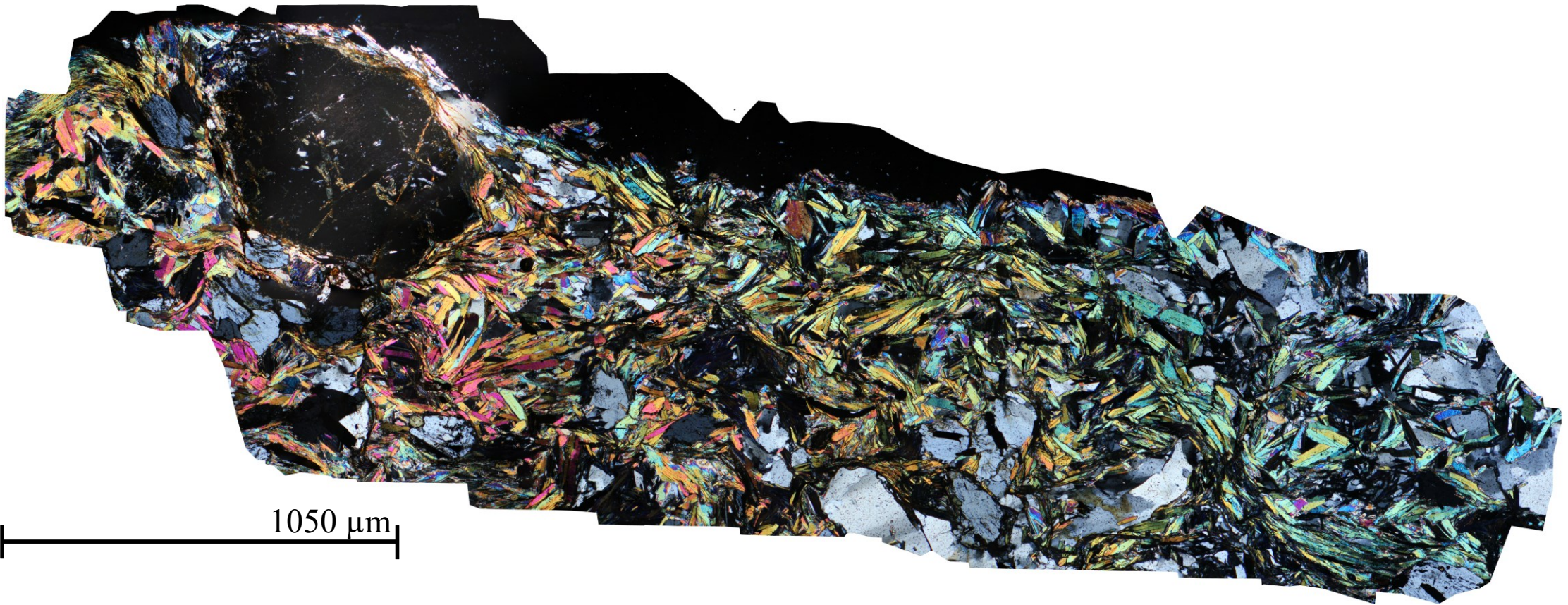
- PENNINIC UNITS**
- Central gneisses
 - Calcschists with Ophiolites
- AUSTROALPINE**
- Tonalites and granodiorites (Oligocene)
 - Phyllonites (Cima Dura Phyllites)
 - "Augen" gneisses (Campo Tures)
 - Amphibolites
 - Marbles
 - Fine-grained paragneisses
 - Paragneisses and micaschists
 - Pegmatitic gneisses
 - Orthogneisses (Anterselva and Casies)
- SOUTHALPINE**
- Granites (Bressanone Granite)
 - Phyllites
- Thrust
- Main tectonic lineaments
- Sample location
- P-A** Penninic-Austroalpine boundary
- DAV** Defereggen-Anterselva-Valles line
- KV** Kalkstein-Vallarga line
- PL** Periadriatic Lineament



1000 μm



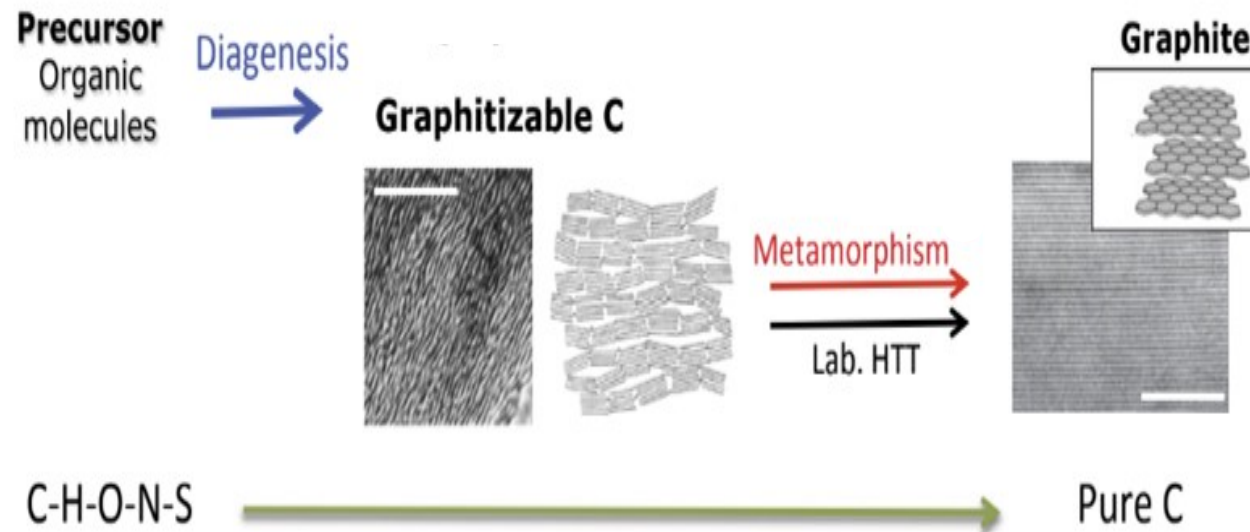
LE FILLADI DI CIMA DURA



LE FILLADI DI CIMA DURA

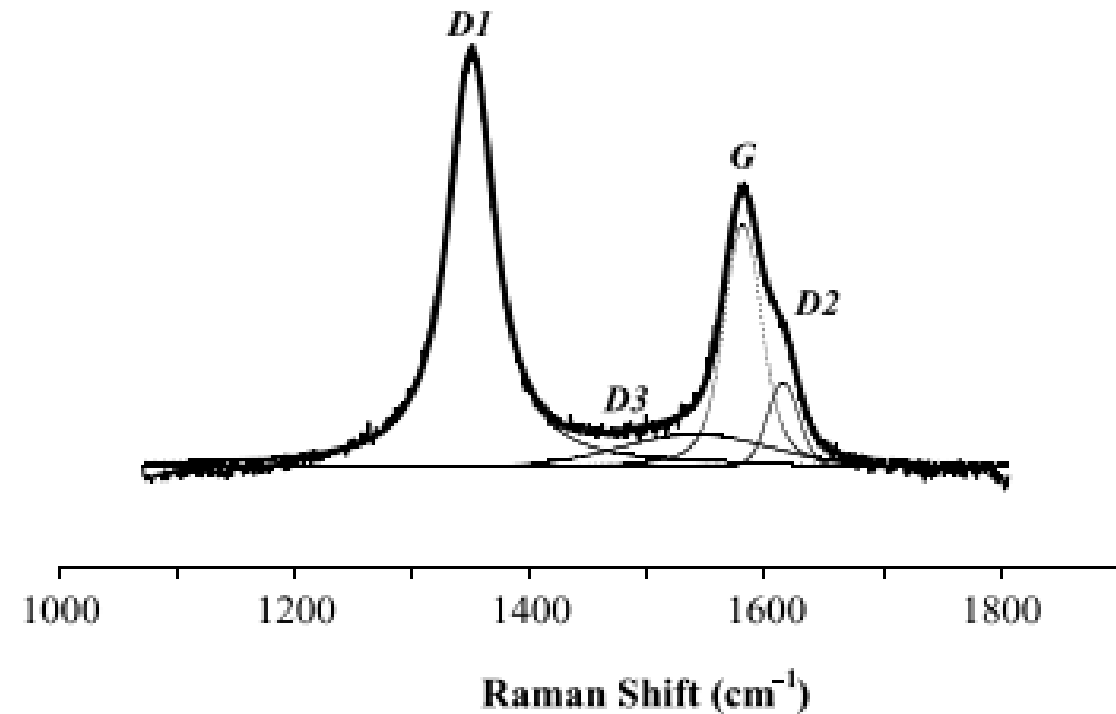
GRAFITE

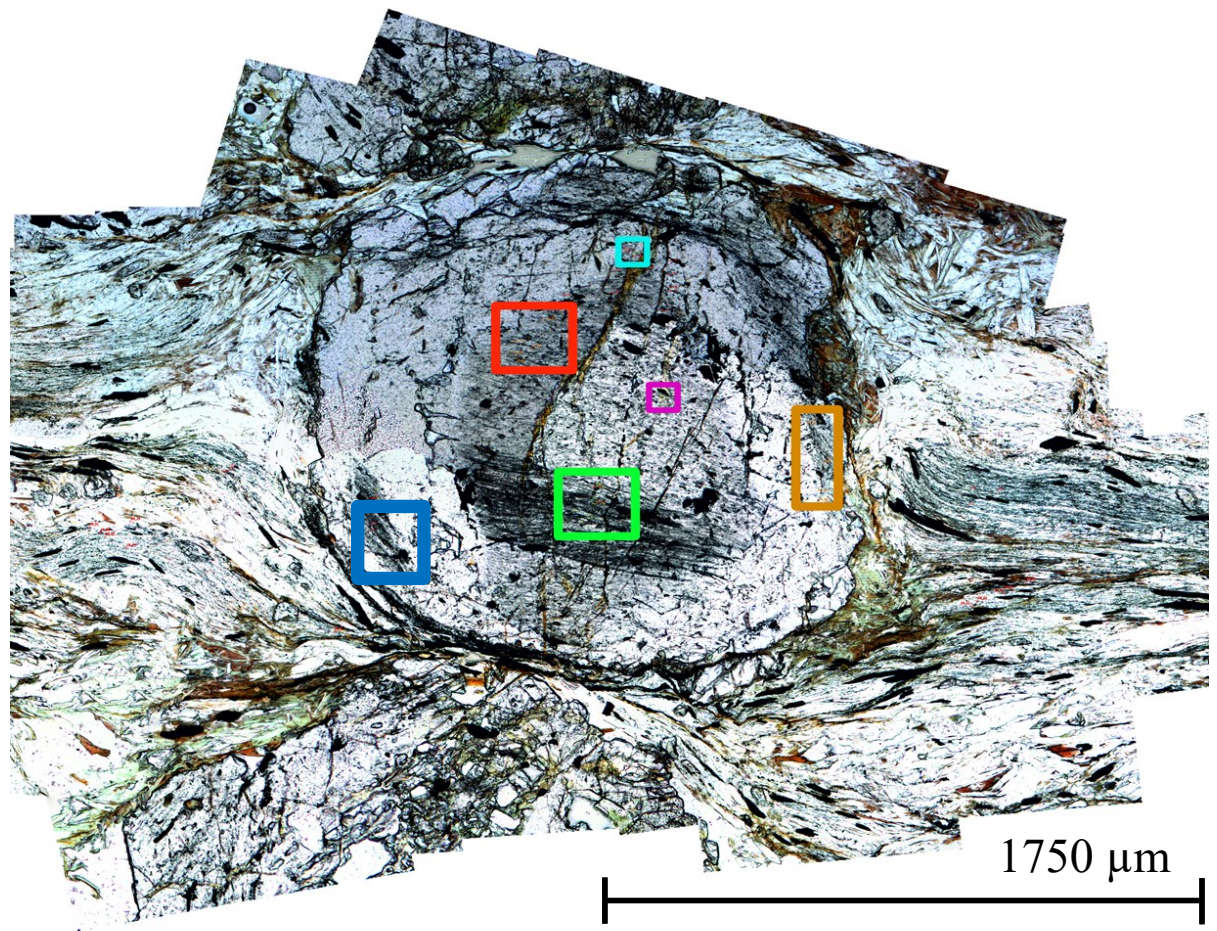
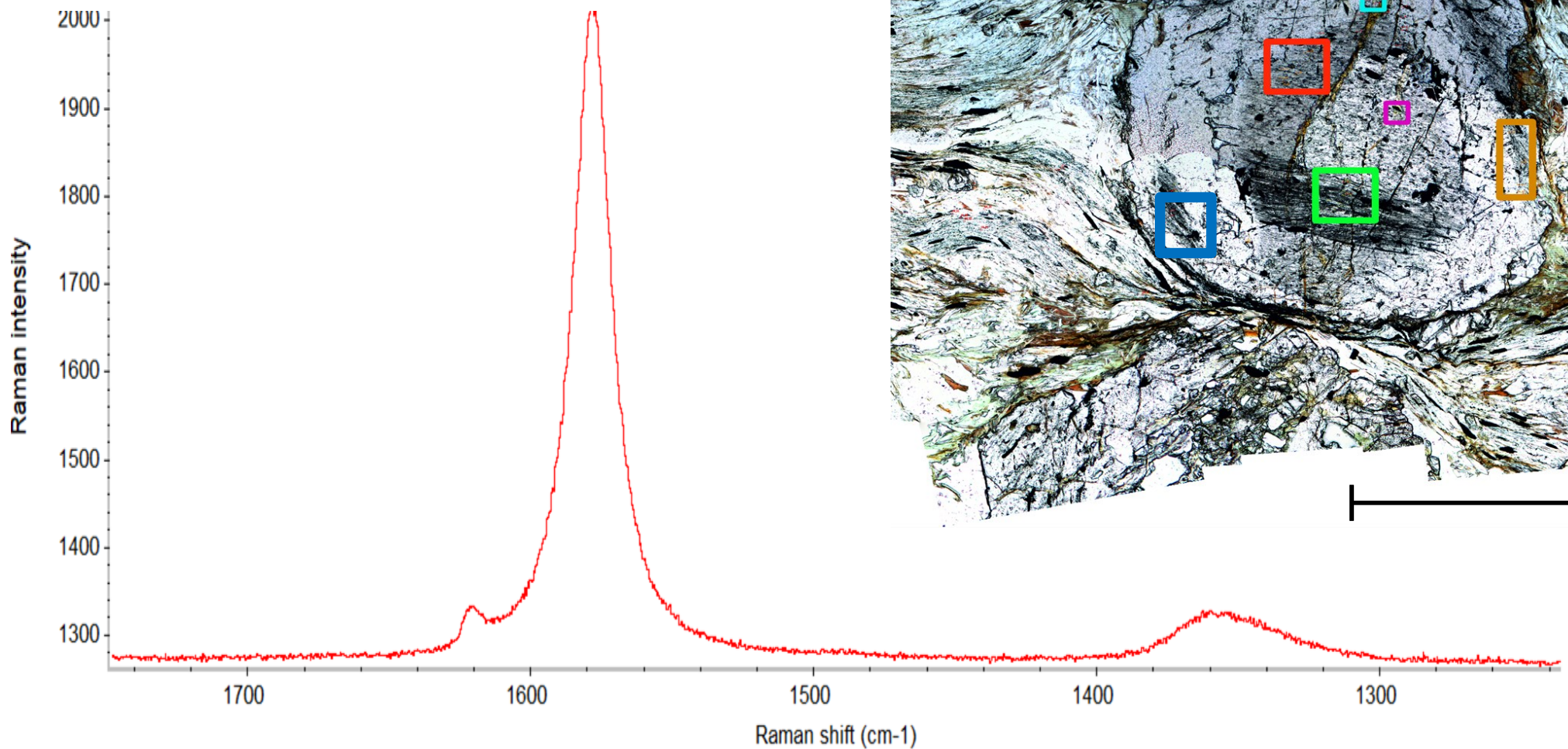
- Carbonio
- Carbonizzazione
- Grafitizzazione

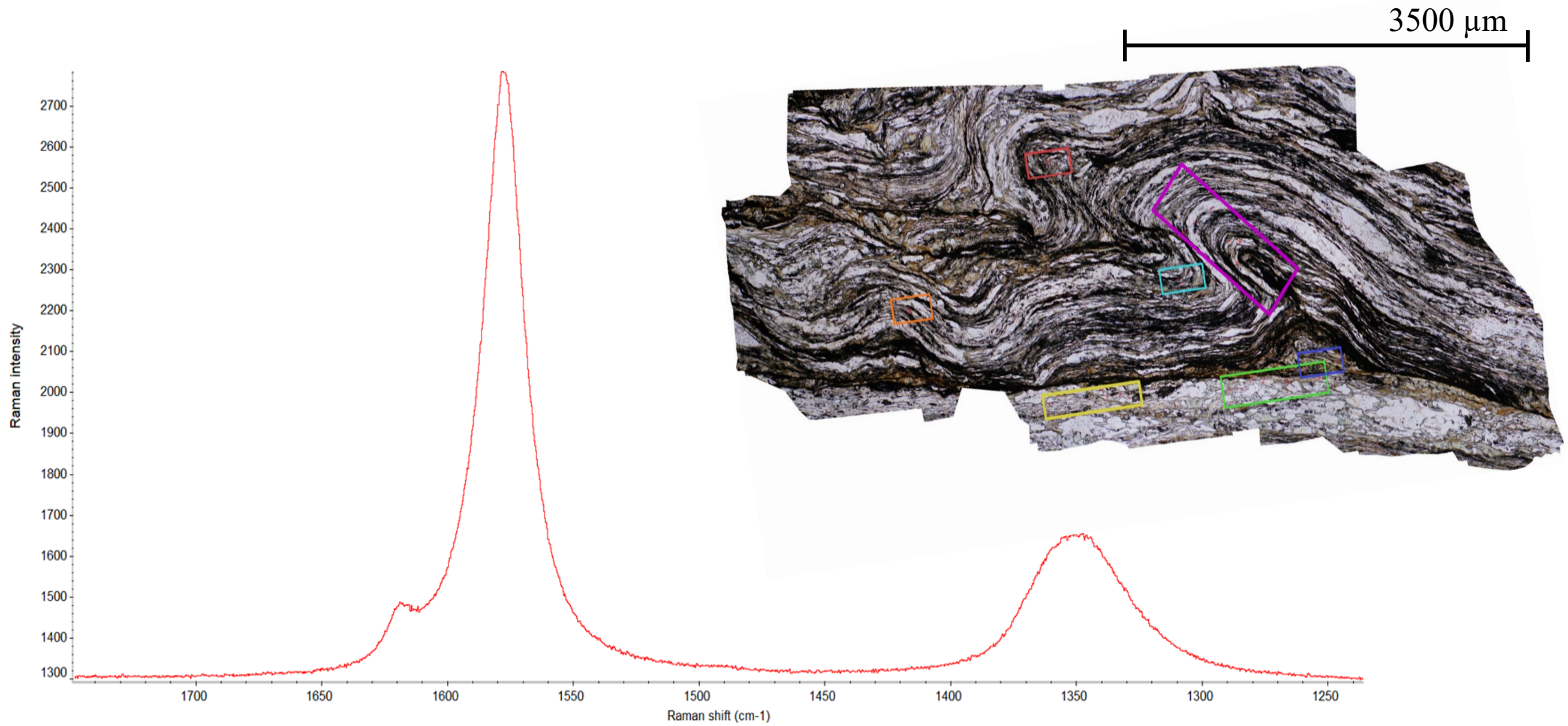


SPETTROSCOPIA RAMAN

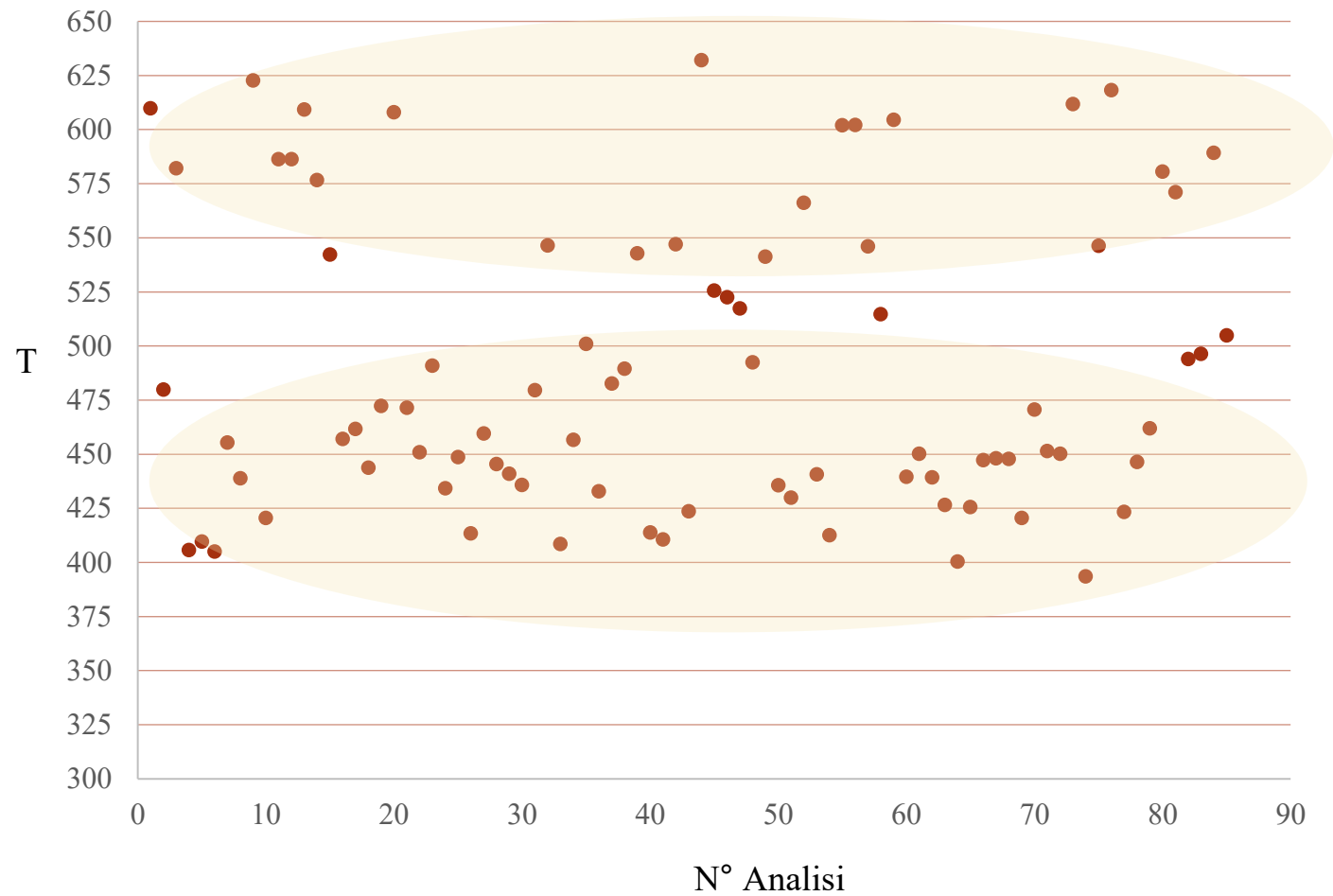
- Picco D1 è più intenso a **LT** ed è circa a 1350 cm^{-1}
- Picco G è più intenso a **HT** ed è circa a $1580\text{-}1600\text{ cm}^{-1}$



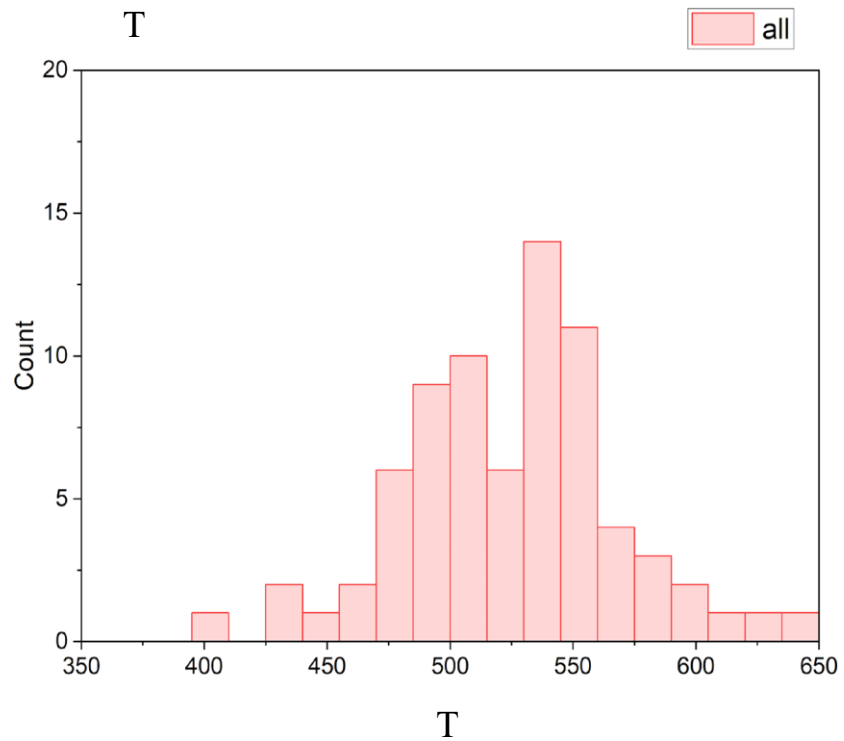
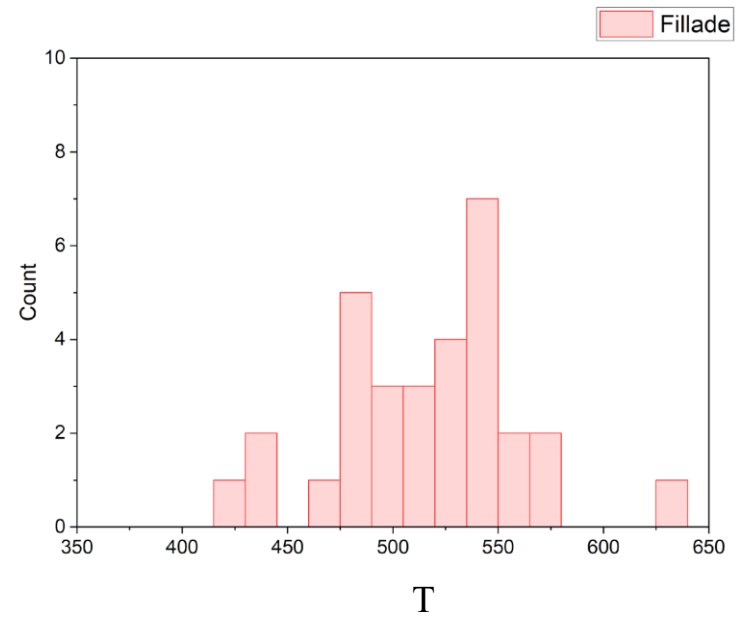
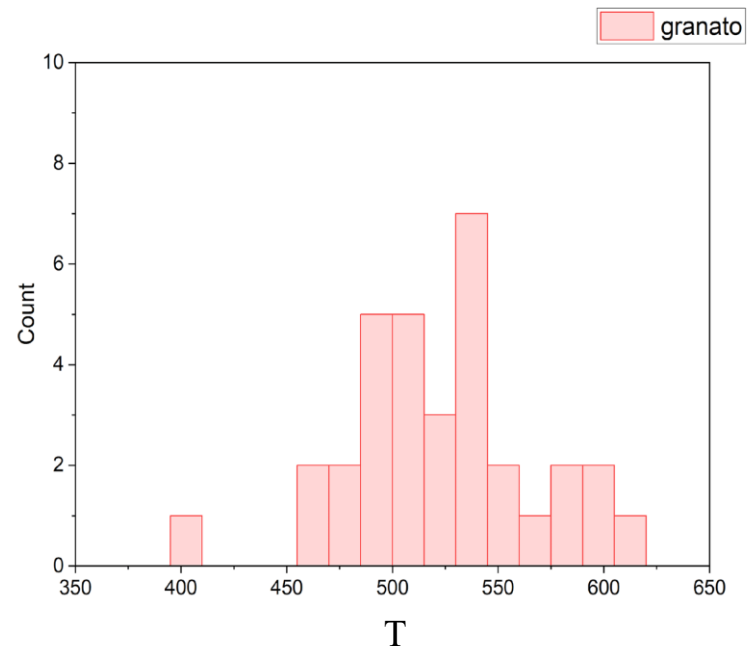




RISULTATI



Due fasce di distribuzione



Filloniti hanno raggiunto una temperatura di almeno 550 °C

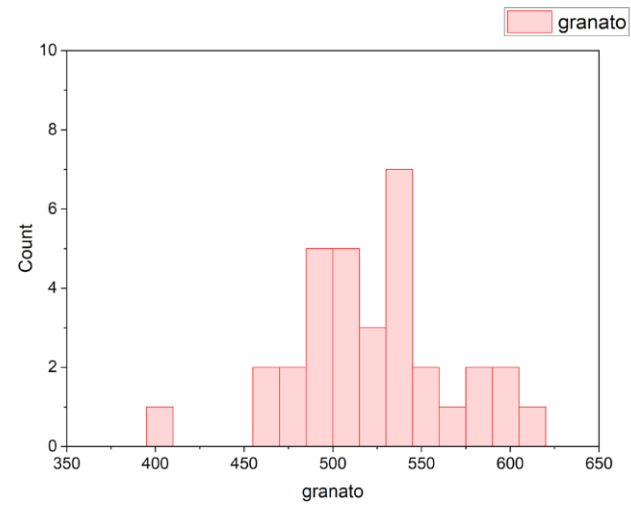
CONCLUSIONI

BIBLIOGRAFIA

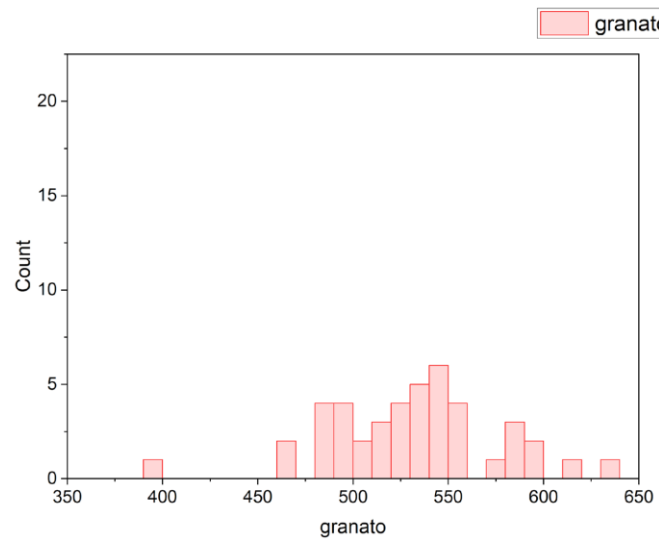
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GRAZIE

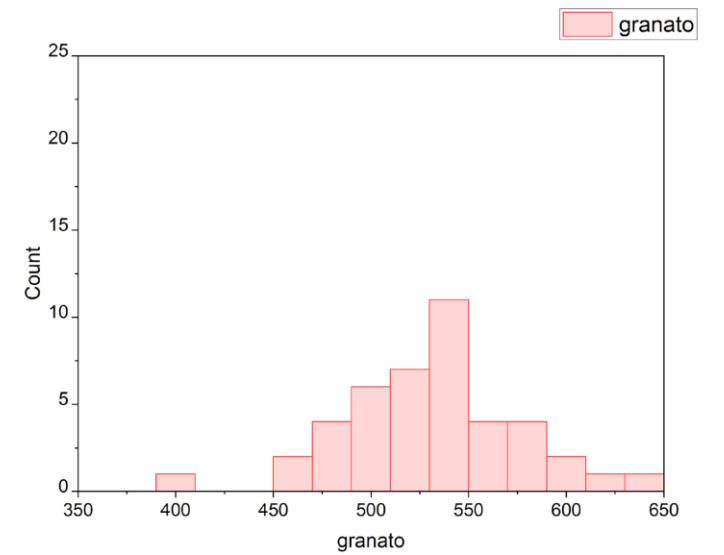
SCELTA CLASSI



Bin size: 15



Bin size: 10

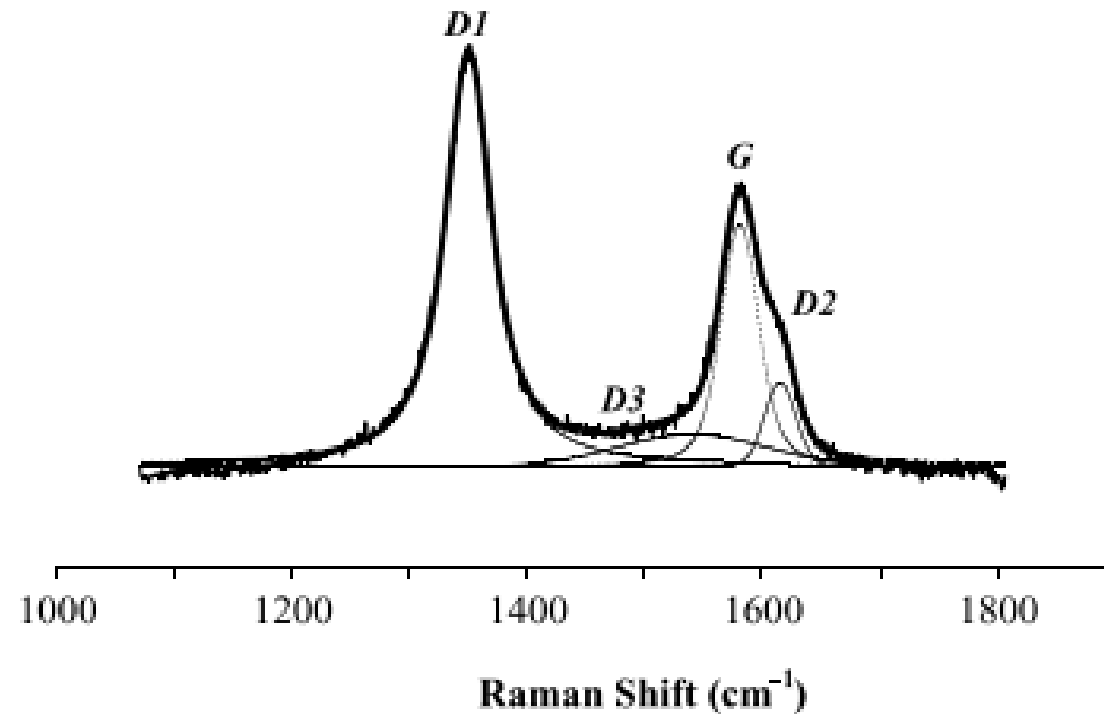


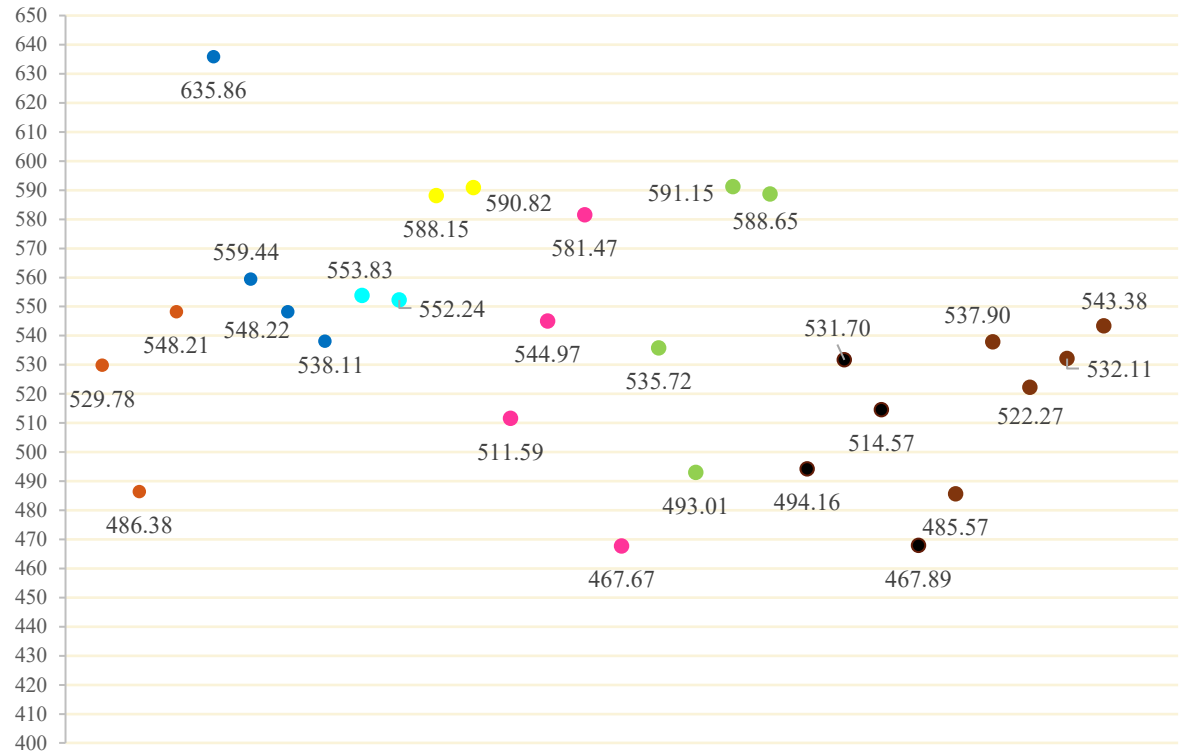
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FORMULE

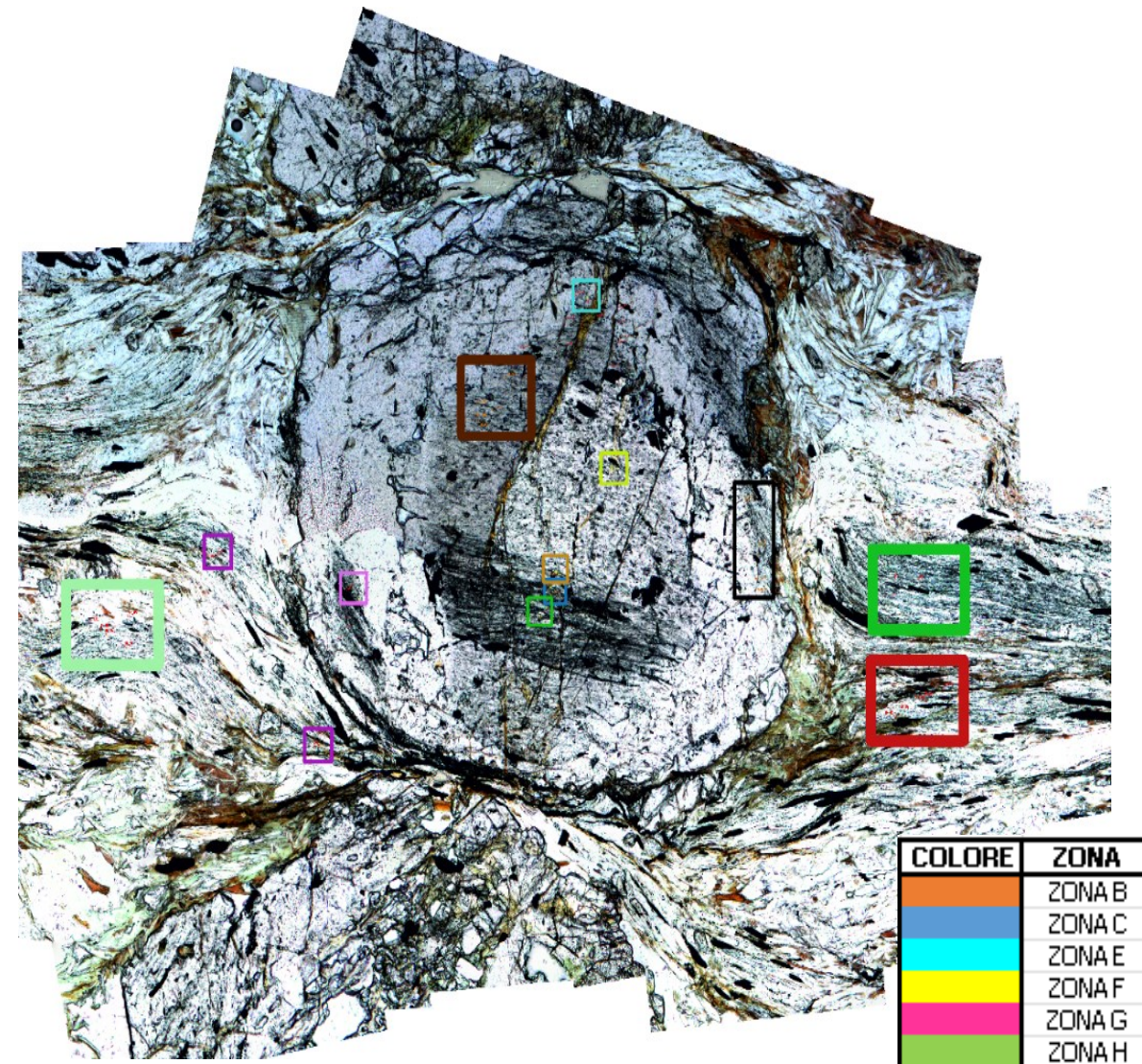
$$R2 = \frac{\text{Area G}}{\text{Area G} + \text{Area D1} + \text{Area D2}}$$

$$T(^{\circ}\text{C}) = -455 * R2 + 641$$

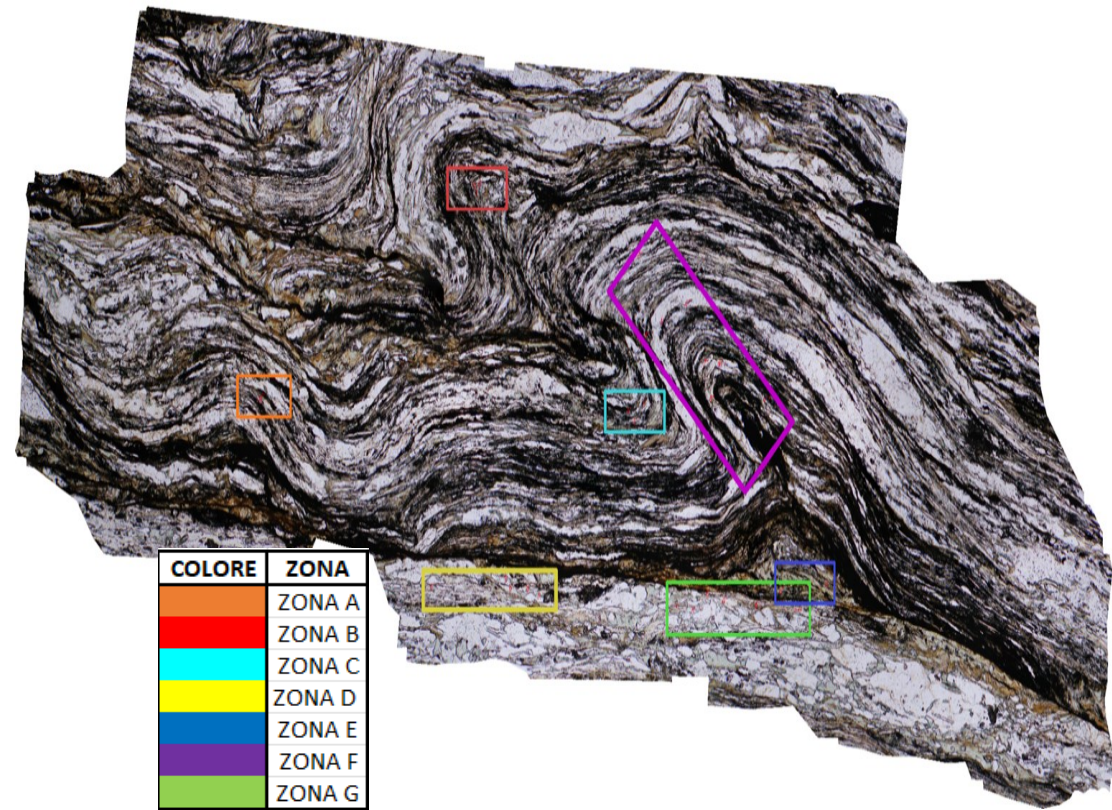




- B
- C
- E
- F
- G
- H
- K
- L



COLORE	ZONA
Orange	ZONA B
Blue	ZONA C
Cyan	ZONA E
Yellow	ZONA F
Pink	ZONA G
Light Green	ZONA H
Black	ZONA K
Brown	ZONA L



COLORE	ZONA
Orange	ZONA A
Red	ZONA B
Cyan	ZONA C
Yellow	ZONA D
Blue	ZONA E
Purple	ZONA F
Green	ZONA G