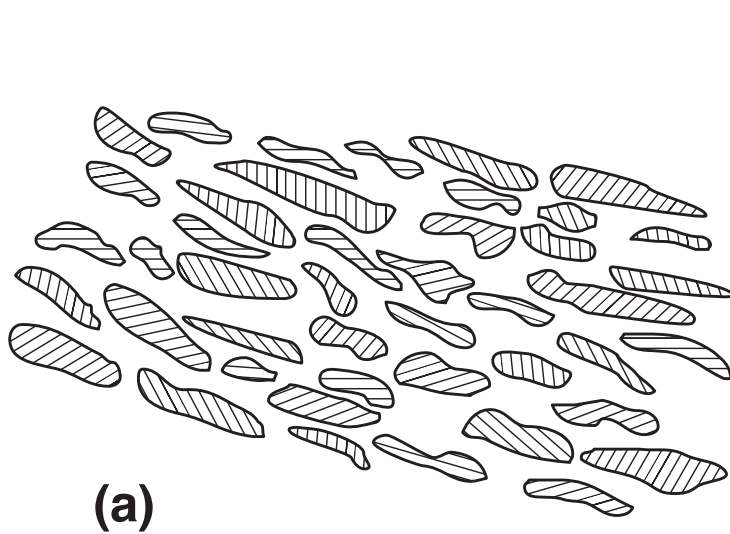


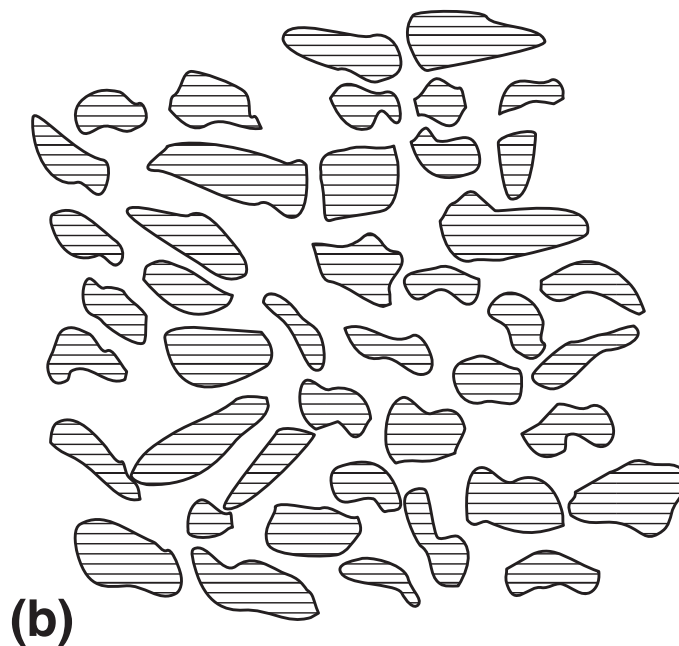
Tessiture in rocce deformate

Microstruttura e tessitura

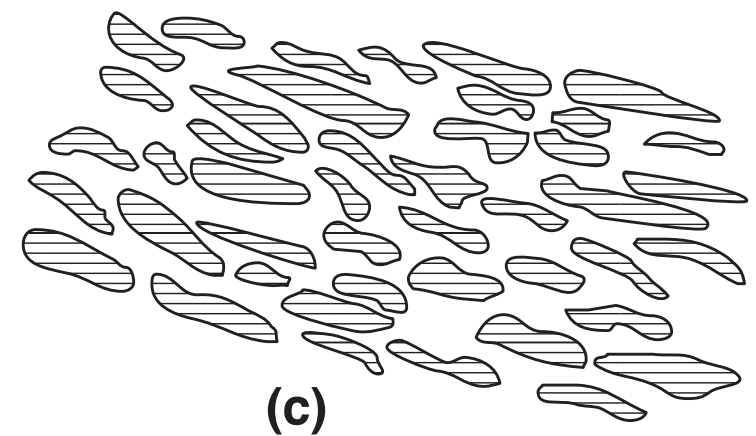
- **Microstruttura:** tutti i caratteri di una roccia osservabili a scala microscopica (foliazione, forma ed orientazione dei granuli, bande di deformazione, subgrani, grani ricristallizzati, morfologia dei contorni dei grani, ecc).
- **Tessitura:** orientazione cristallografica preferenziale dei minerali costituenti una roccia



microstruttura orientata
no tessitura



microstruttura non orientata
tessitura orientata



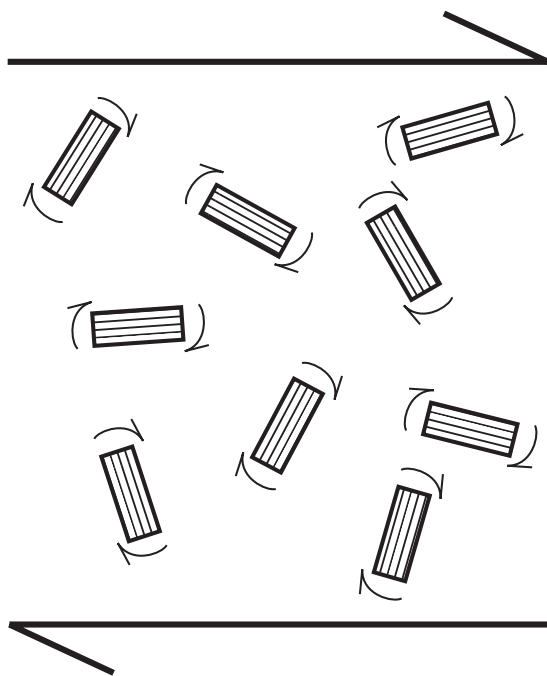
microstruttura orientata
tessitura orientata

Origine tessiture

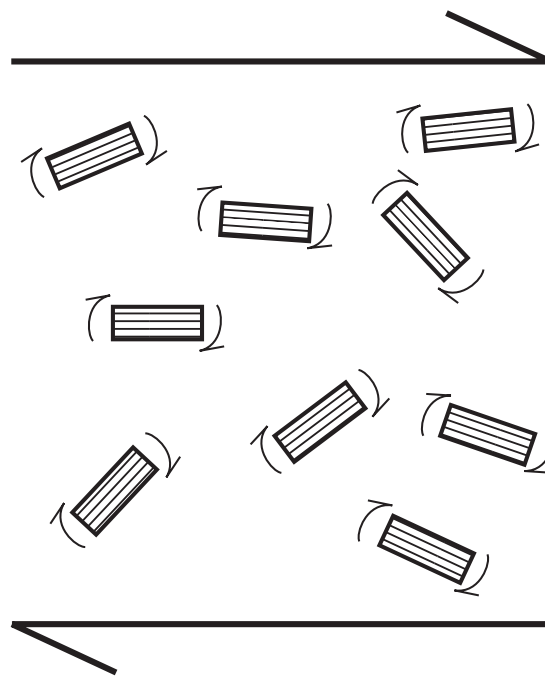
- rotazione passiva di cristalli;
- geminazione;
- dislocation glide;
- ricristallizzazione dinamica: per rotazione e grain boundary migration (dislocation creep).

Rotazione passiva di cristalli

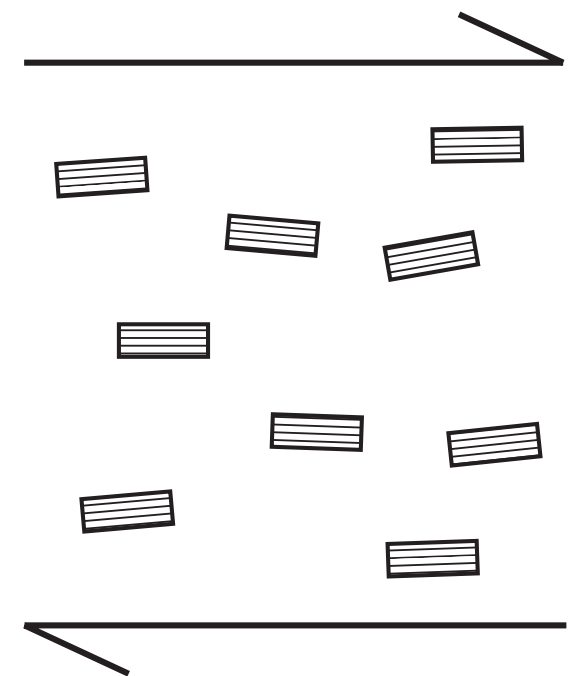
- Importante solo in cristalli con forte anisotropia di forma (miche)
- bassa Temperatura



(a)



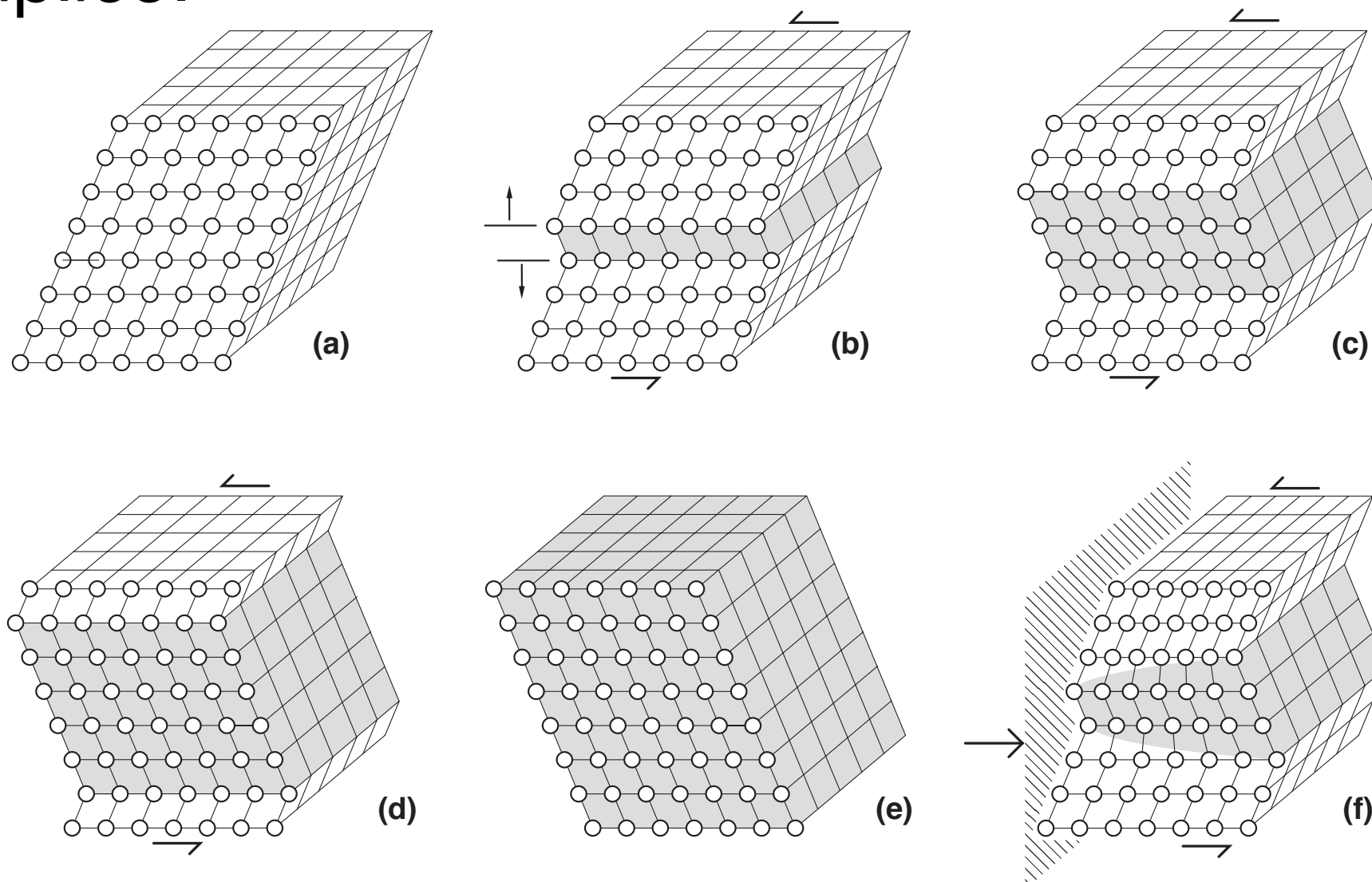
(b)



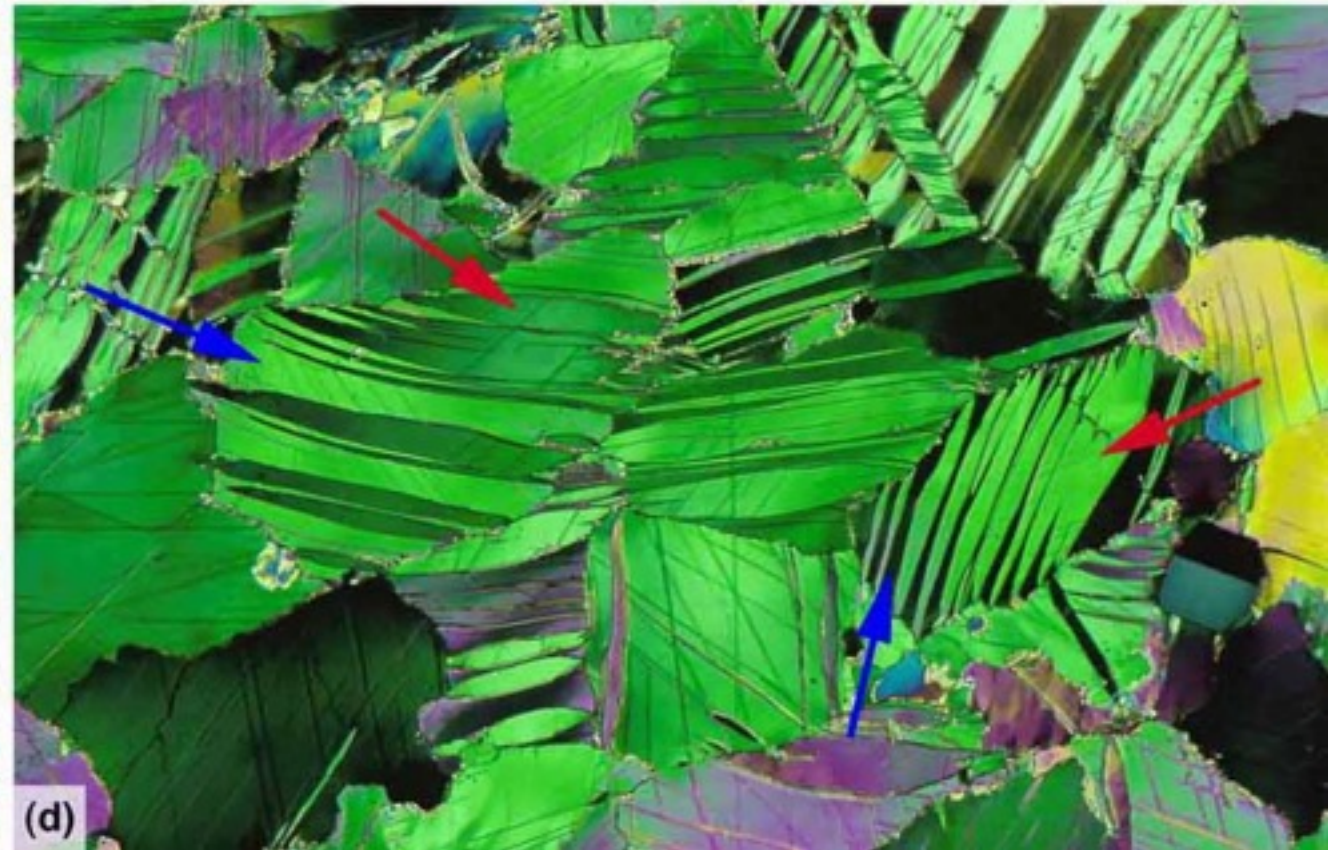
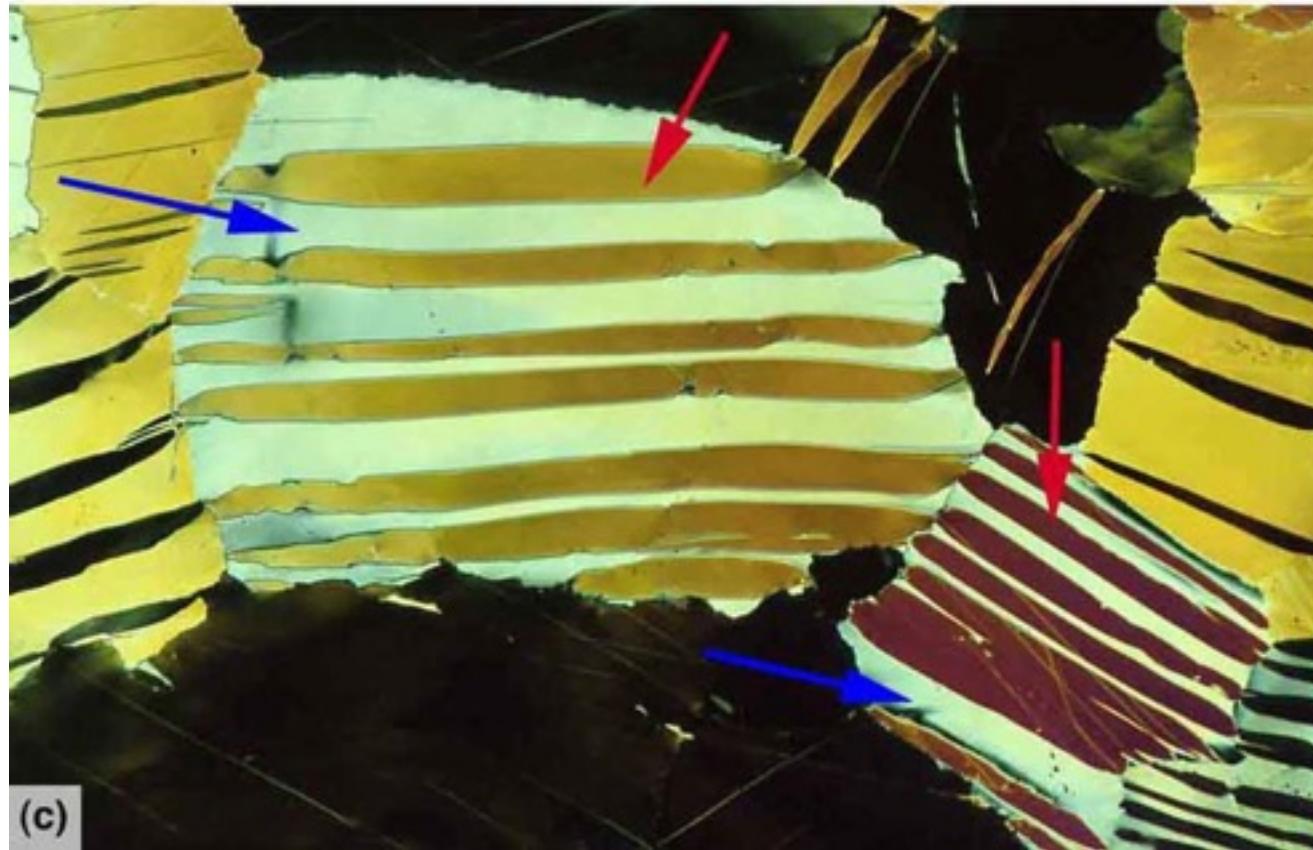
(c)

Geminazione

- formazione all'interno di un cristallo di due porzioni con orientazione reciproca stabilita da precise leggi geometriche.
- diverse dalle operazioni di simmetria del cristallo semplice.



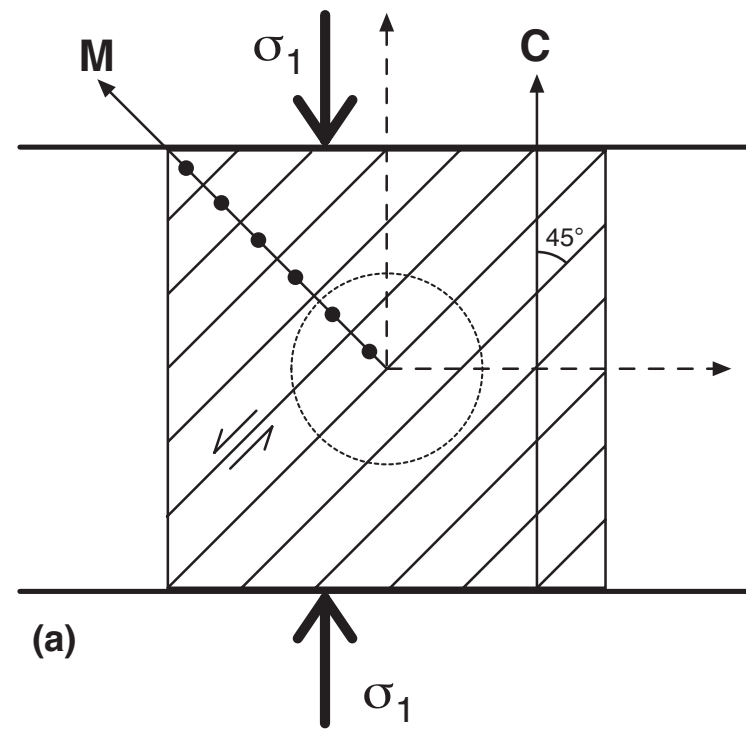
Geminazione



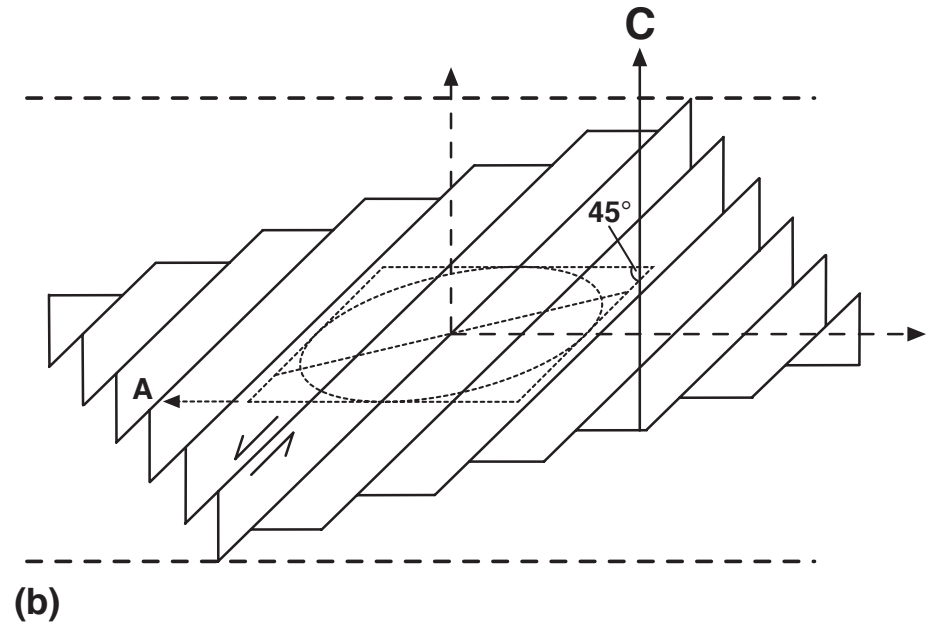
marmo

rosso: parte geminata
blu: cristallo originario

Dislocation glide

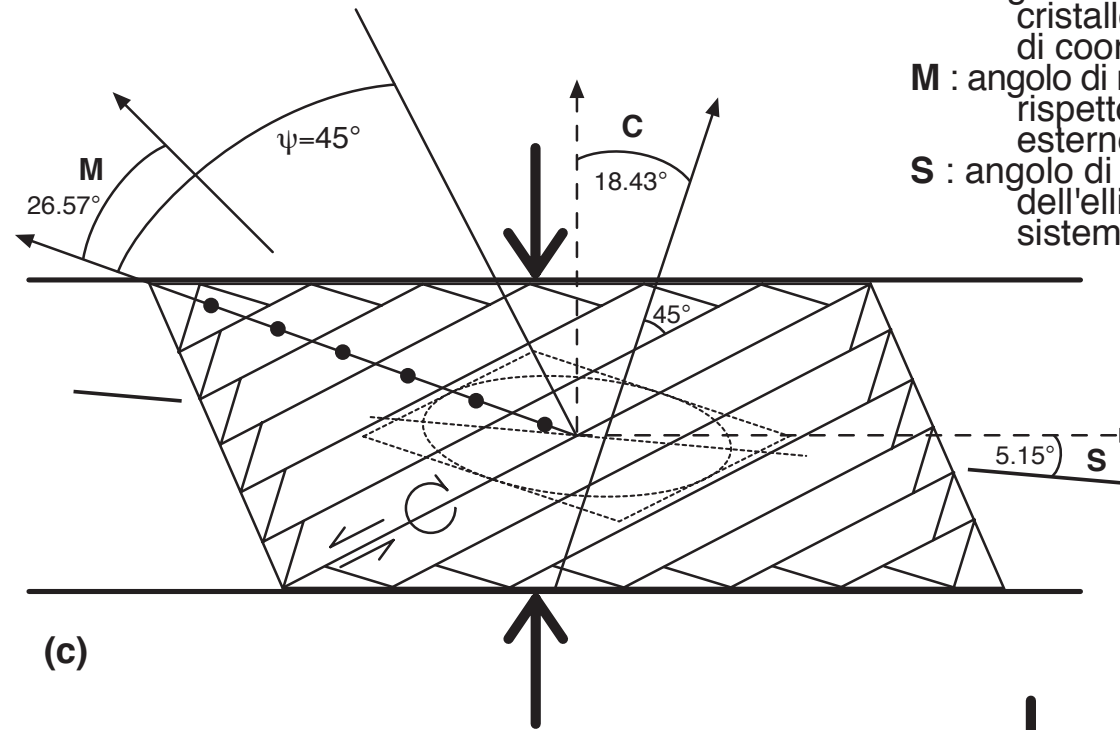


(a)

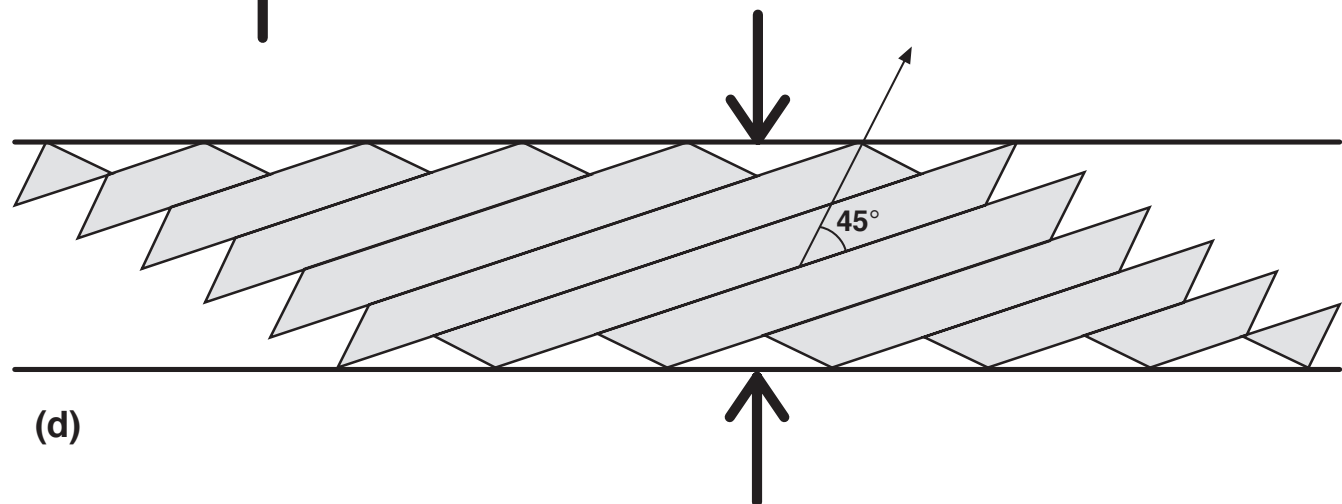


(b)

ψ : angolo di taglio lungo il sistema di scivolamento
C : angolo di rotazione di un asse cristallografico rispetto ad un sistema di coordinate esterno
M : angolo di rotazione di una linea materiale rispetto ad un sistema di coordinate esterno
S : angolo di rotazione dell'asse maggiore dell'ellisse dello strain rispetto ad un sistema di coordinate esterno



(c)

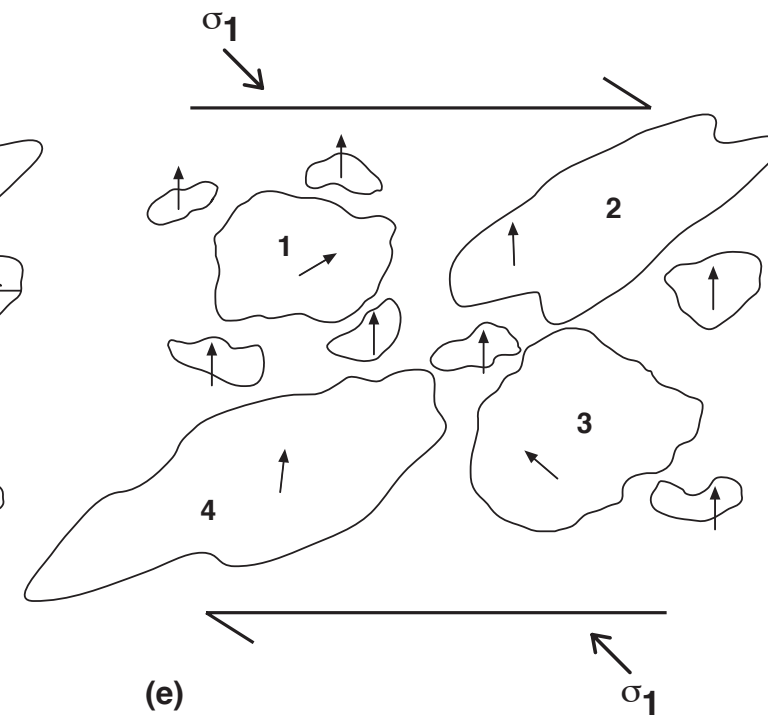
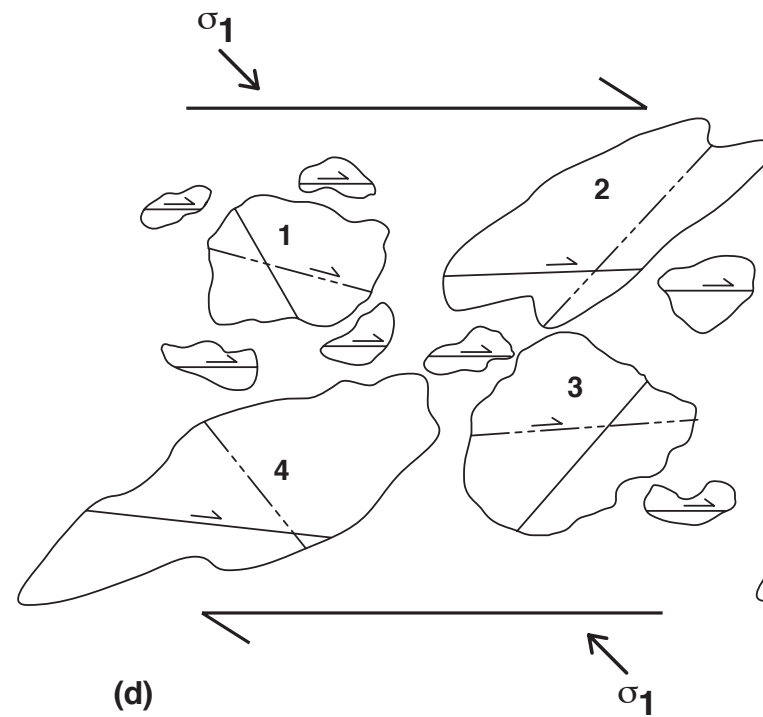
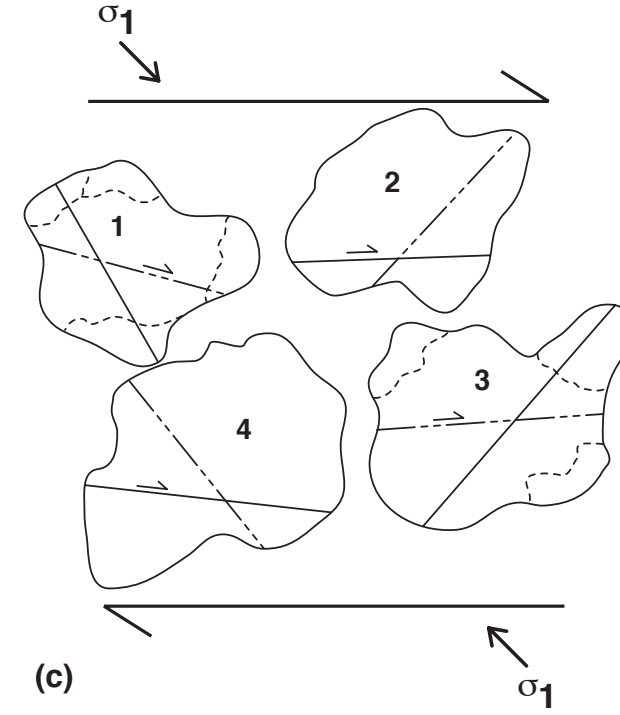
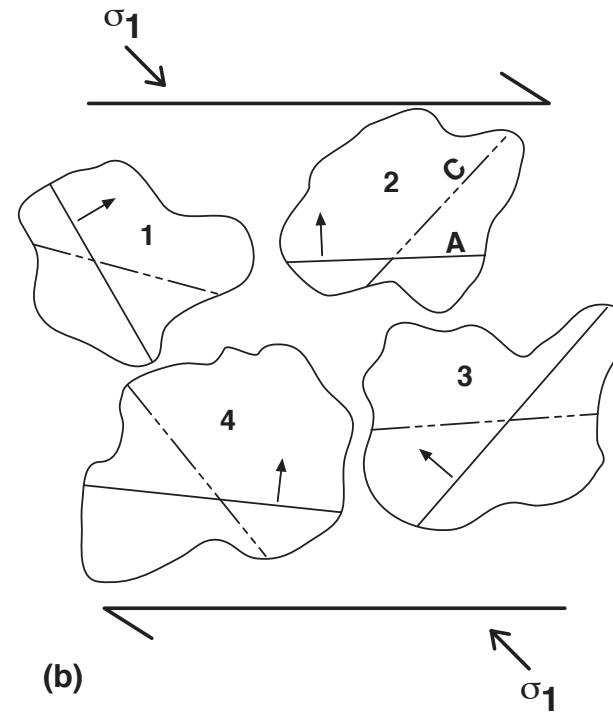
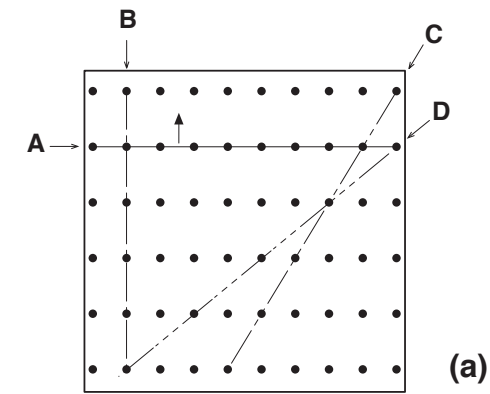


(d)

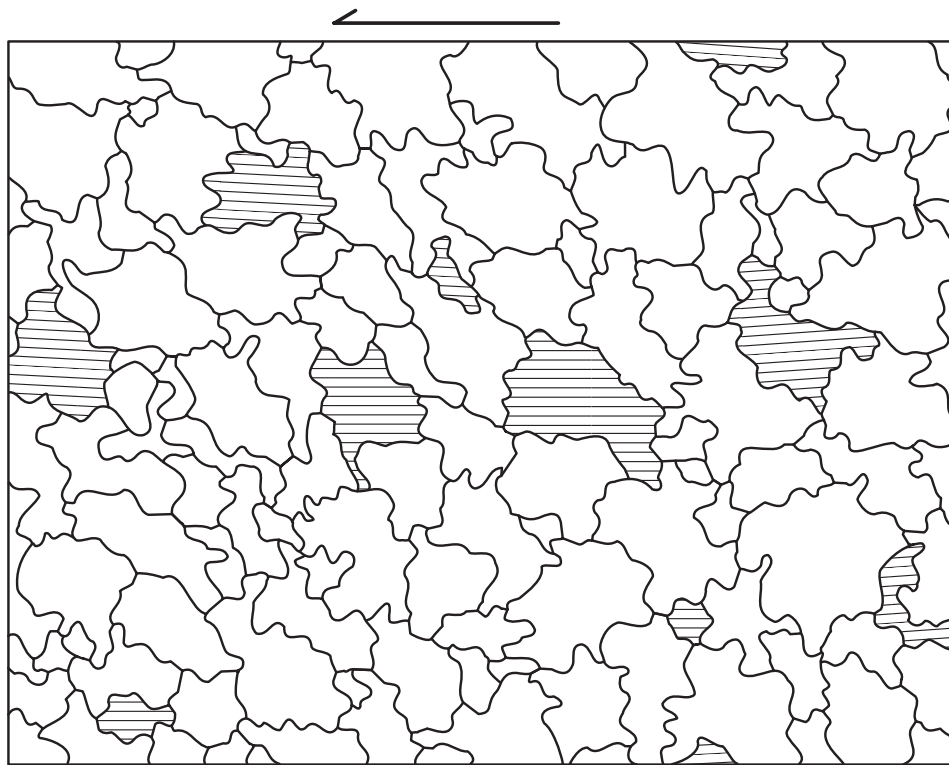
Ricristallizzazione dinamica

piani reticolari A: basso CRSS

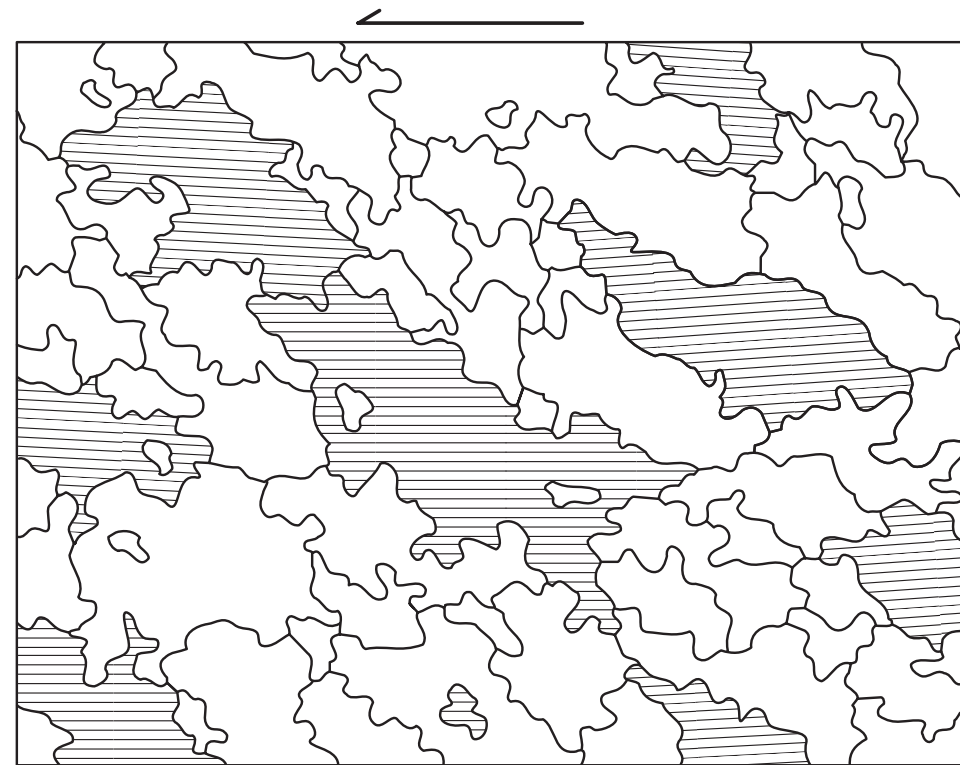
piani reticolari D: alto CRSS



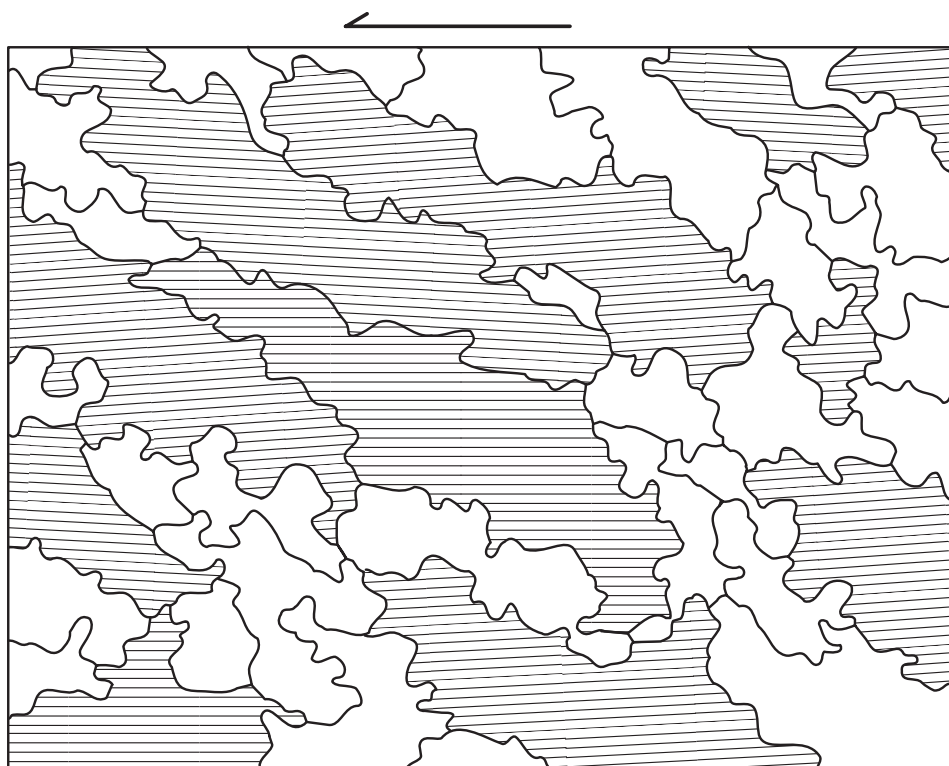
Ricristallizzazione dinamica



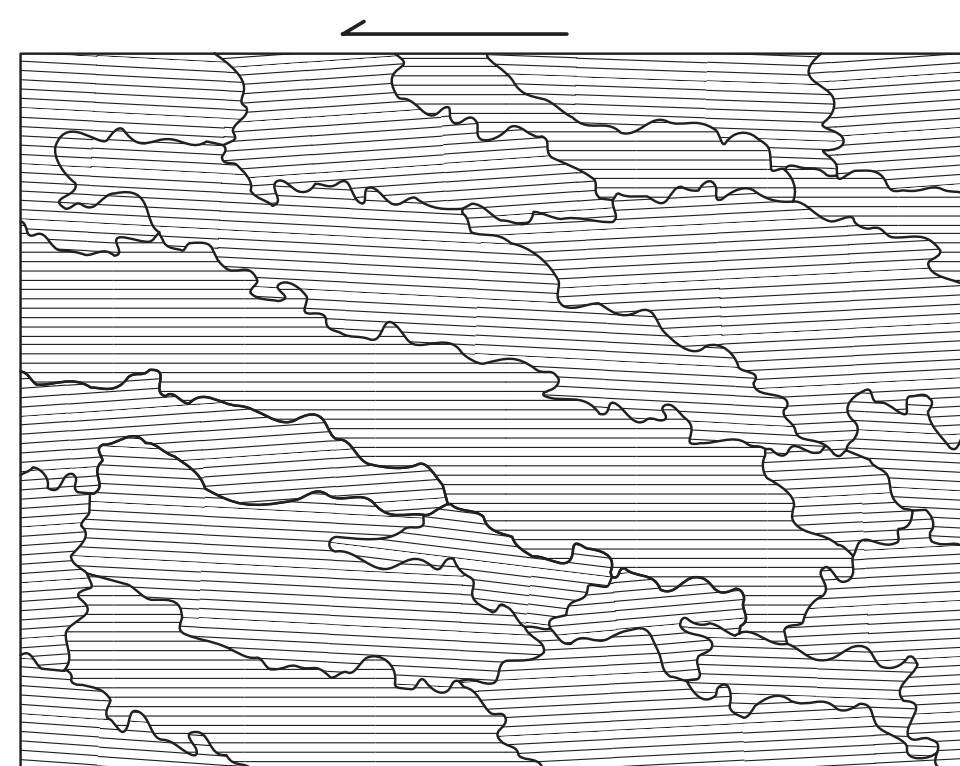
(a)



(b)

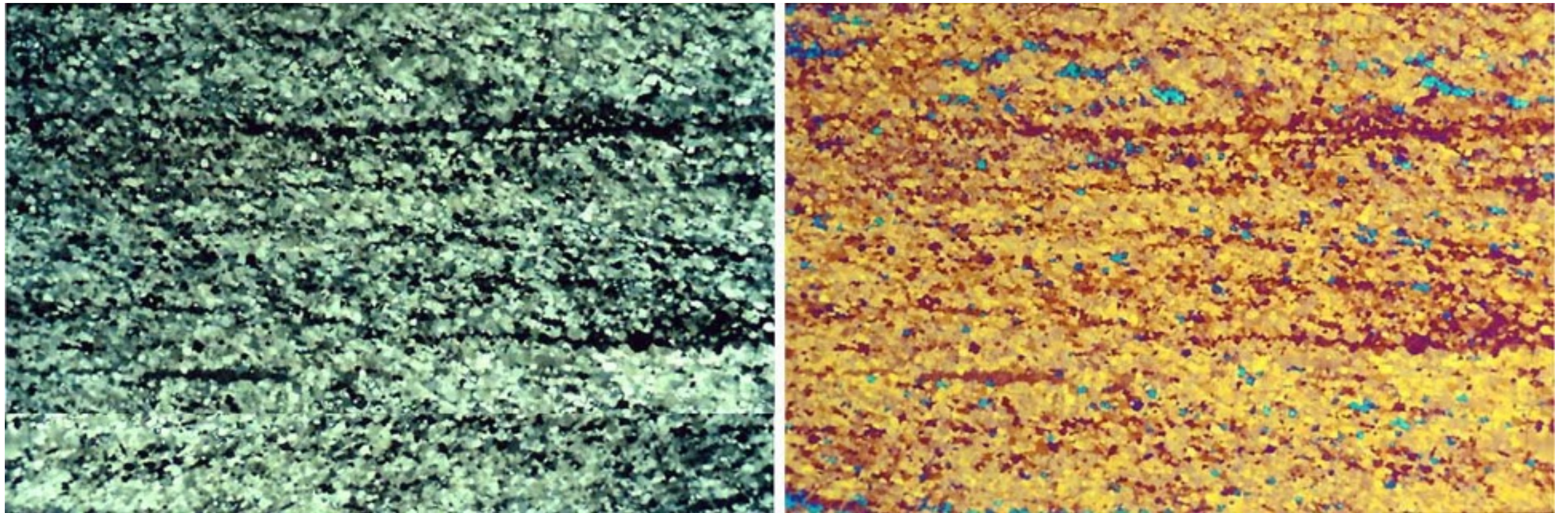


(c)



(d)

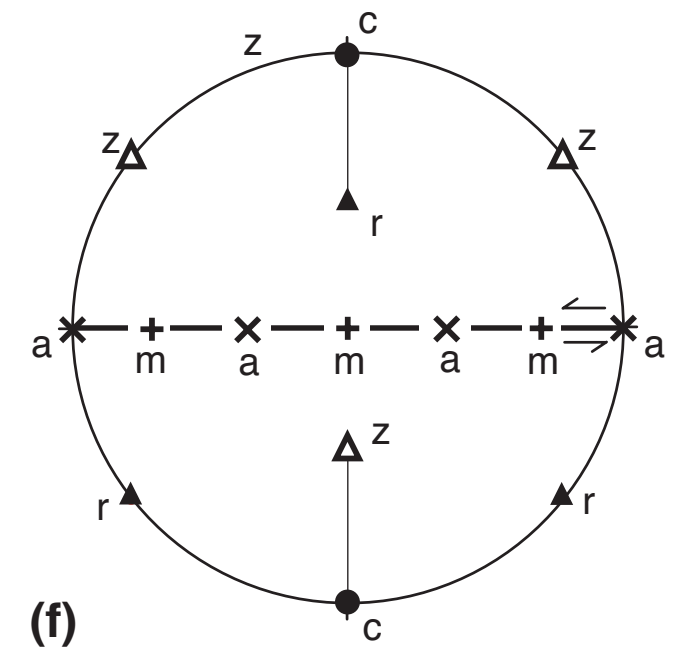
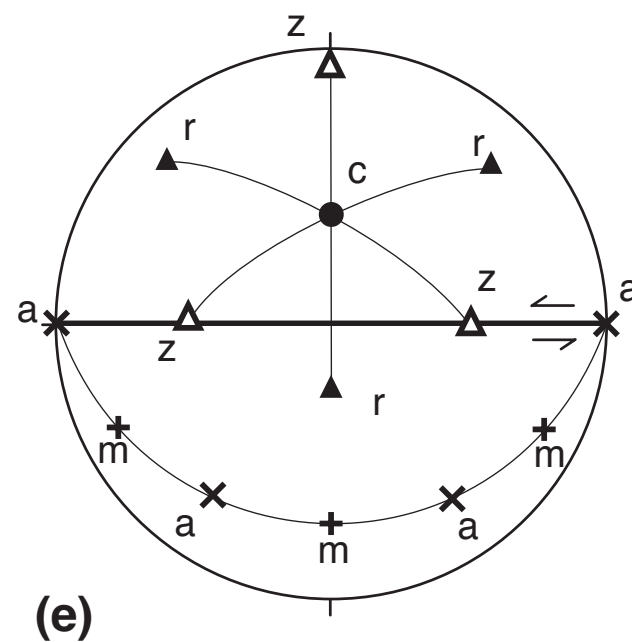
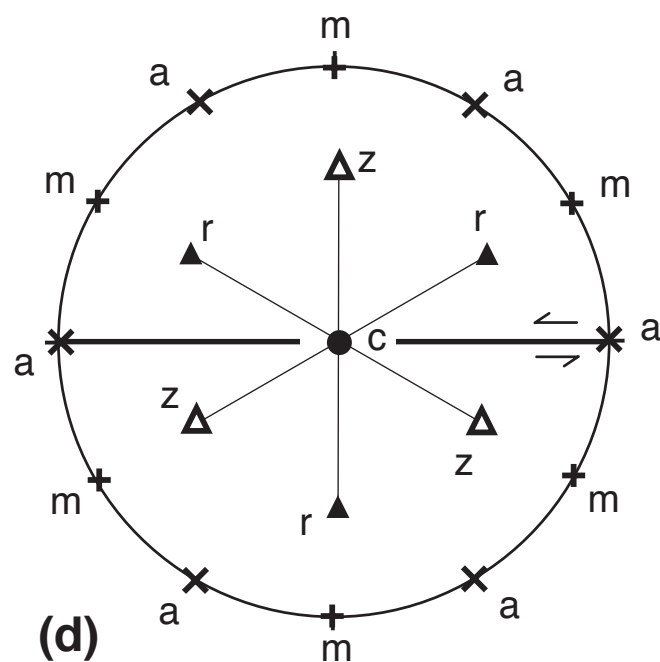
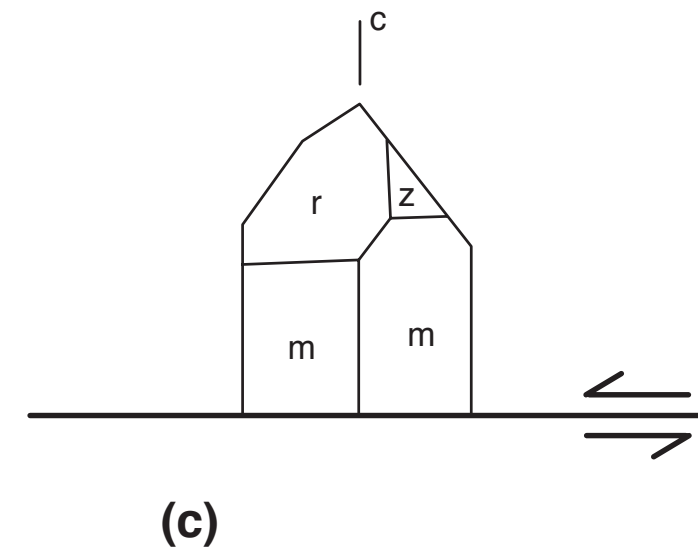
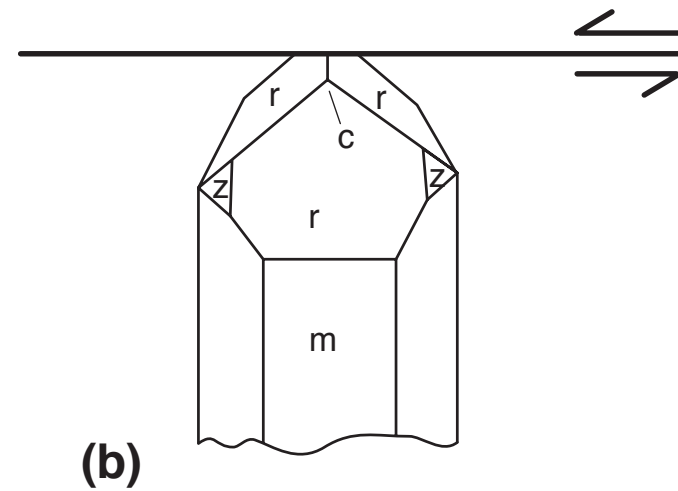
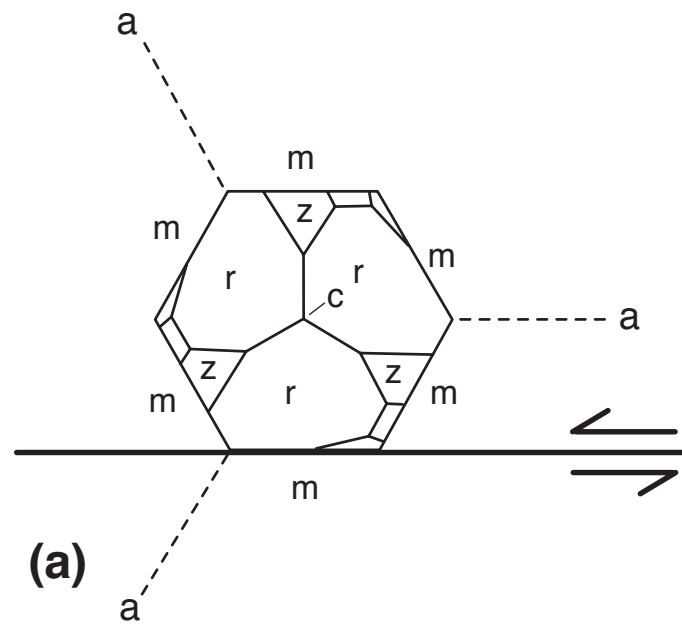
Ricristallizzazione dinamica



Forte tessitura
(microstruttura non orientata)

Ricristallizzazione dinamica

- quarzo



Tessiture

