

TEMA 2

Fundamentos de la Cristalografía

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Estados de la materia

gaseoso



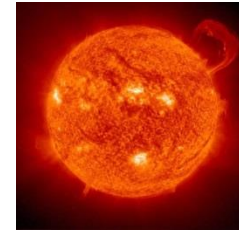
líquido



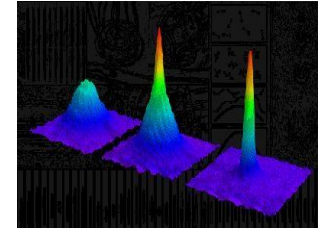
sólido



otros estados



Plasma



<http://es1.ph.man.ac.uk/research>

Condensados
cuánticos
(Bose-Einstein)

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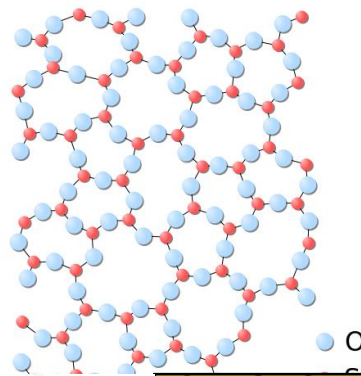
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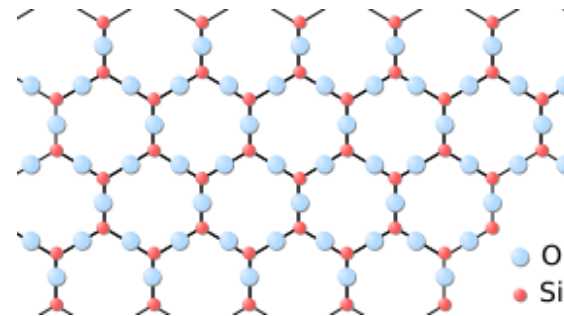
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estructura del vidrio



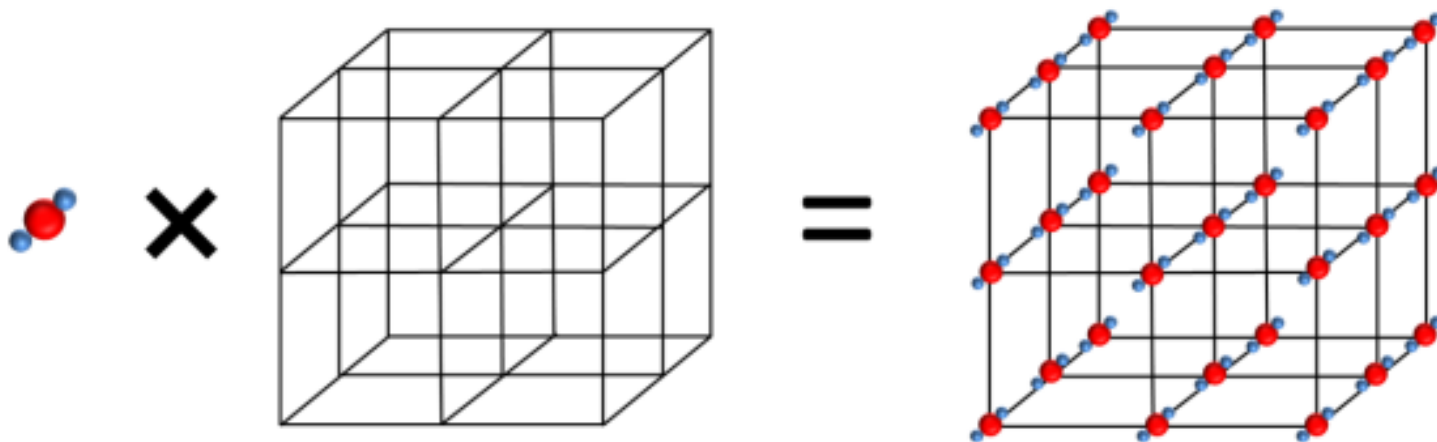
estructura del cuarzo



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CRISTAL - MOTIVO Y RED.

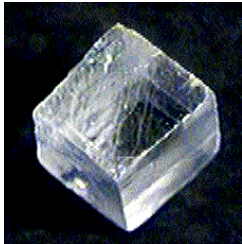
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Propiedades fundamentales del estado cristalino

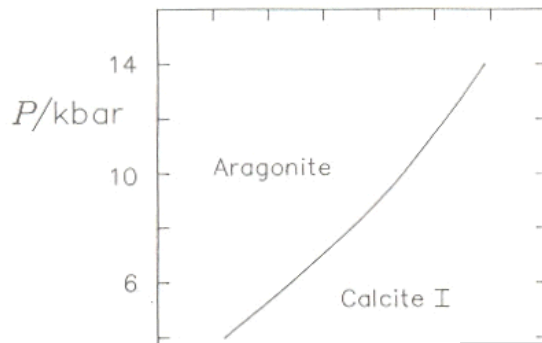
Invarianza



calcita



aragonito

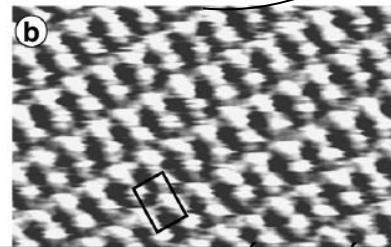


Periodicidad



Cristales de dolomita

$[42\bar{1}]$ $[010]$

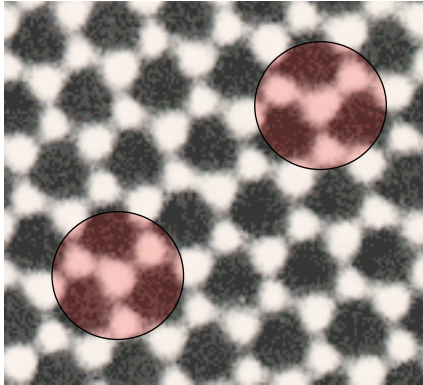


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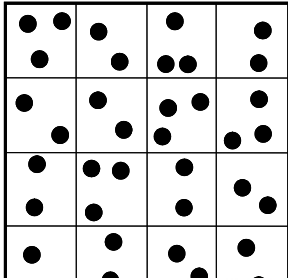
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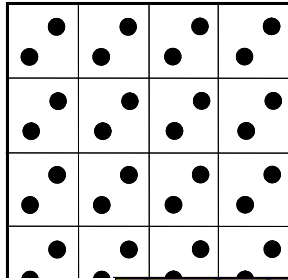
Homogeneidad



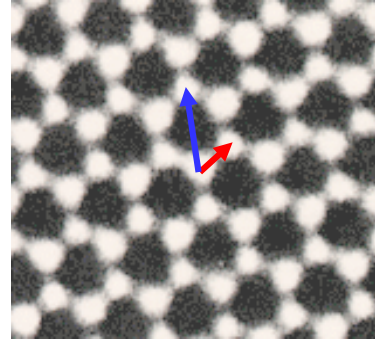
a



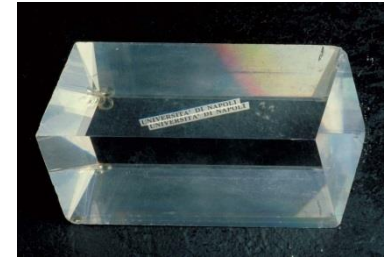
b



Anisotropía

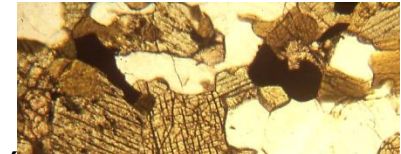
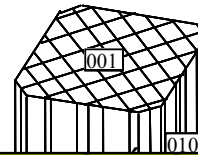


Propiedades ópticas



<http://www.na.infn.it/Museum/schede>

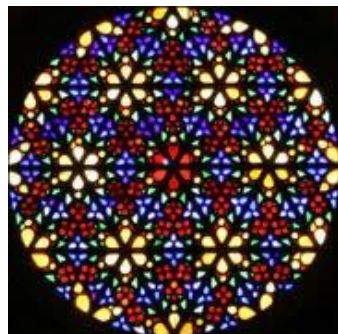
Exfoliación



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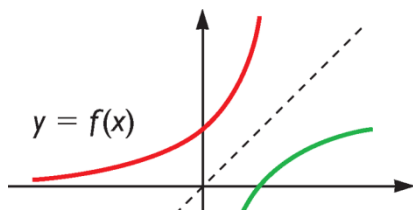
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Catedral de Palma de Mallorca



Girasol



Simetría



Canon Cancrizante J.S. Bach. Ofrenda Musical BWV 1079

Simetría cristalográfica



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APÉNDICE: CANON CANCRIZANTE DE J.S. BACH



BWV 1079.3a
1st Edn 'Canon 1 a 2. [cancrizans]'

A musical score for the Canon 1 a 2. [cancrizans] by J.S. Bach. The score is written in G major and 3/4 time. It consists of two staves, with the first staff being the treble clef and the second staff being the bass clef. The score is divided into measures, with measure numbers 10, 15, 1, 7, and 13 indicated. The music features a complex, interlocking melodic structure characteristic of a canon.

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