CHIMICA GENERALE ED INORGANICA E LABORATORIO

cod. 00966

Docente:
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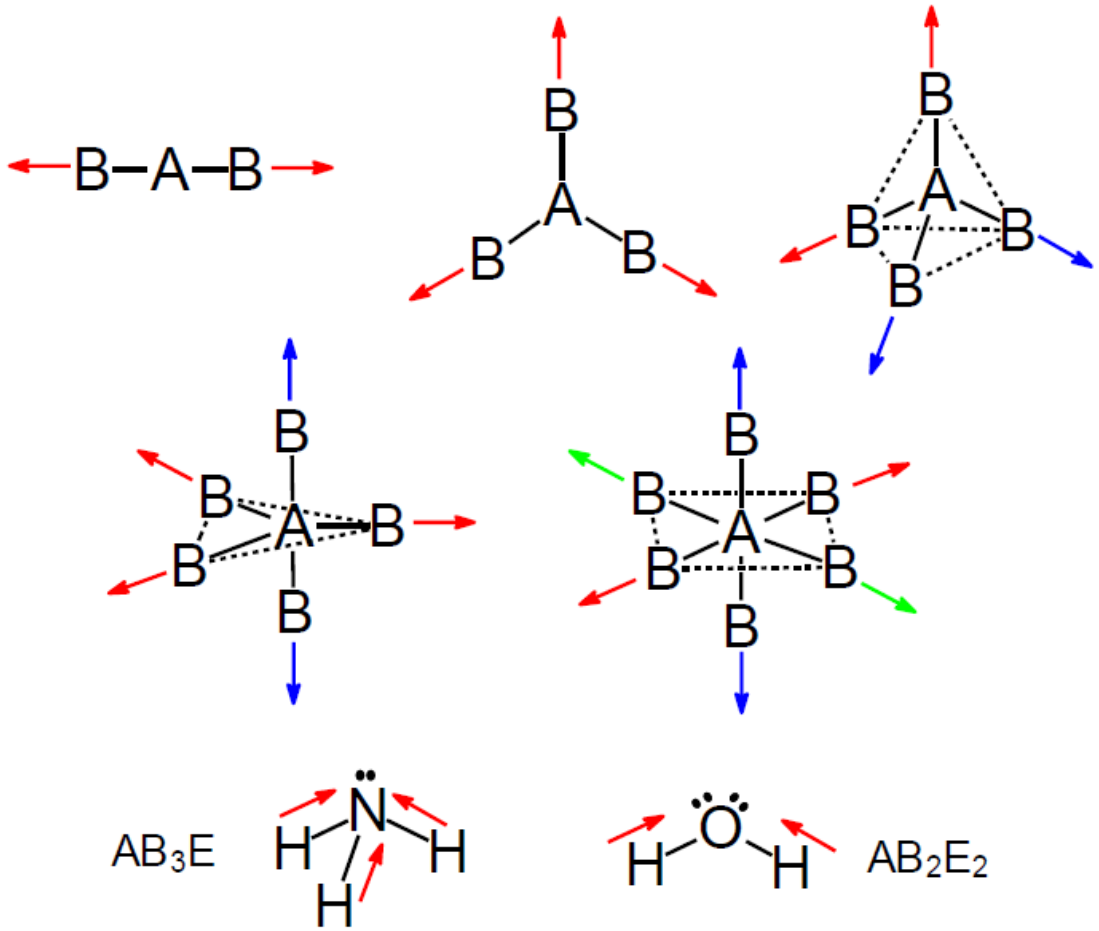
roberto.esposito@unina.it

Lezione 10

- Interazioni intermolecolari
- I gas
- Equazione di stato dei gas ideali

Legami intermolecolari:



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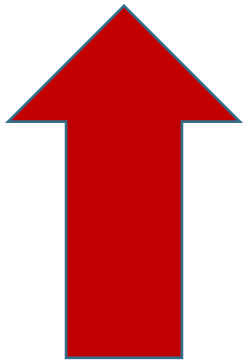

- **ione – dipolo permanente**
- **legame a idrogeno**
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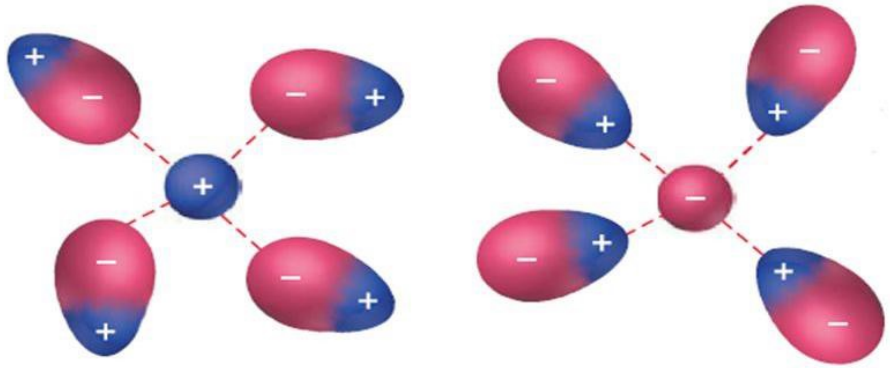

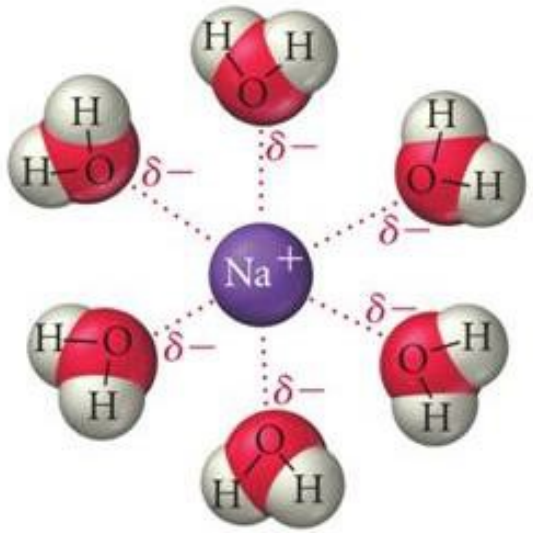

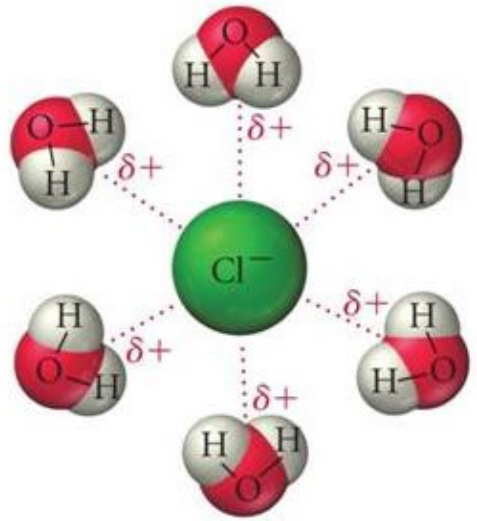

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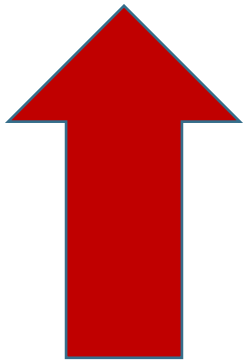

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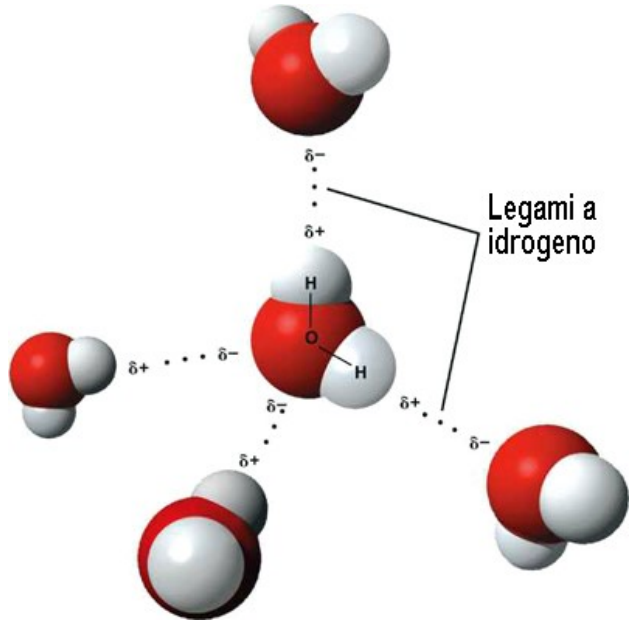

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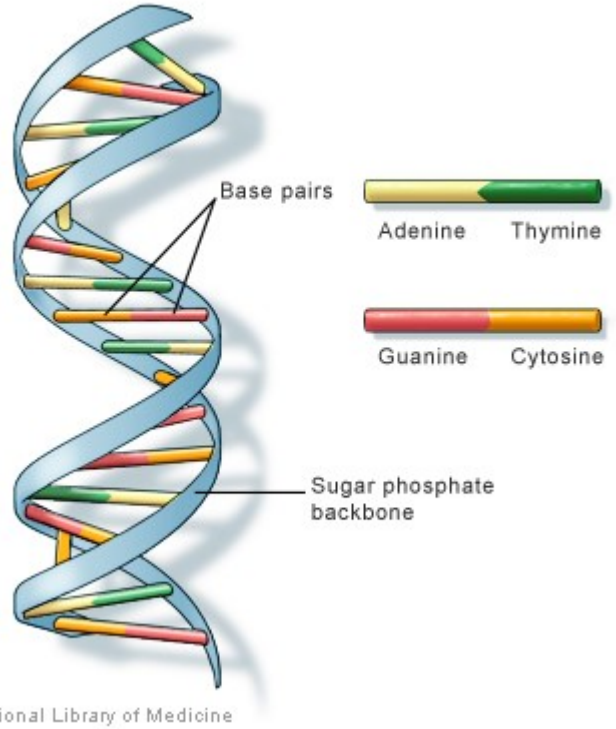

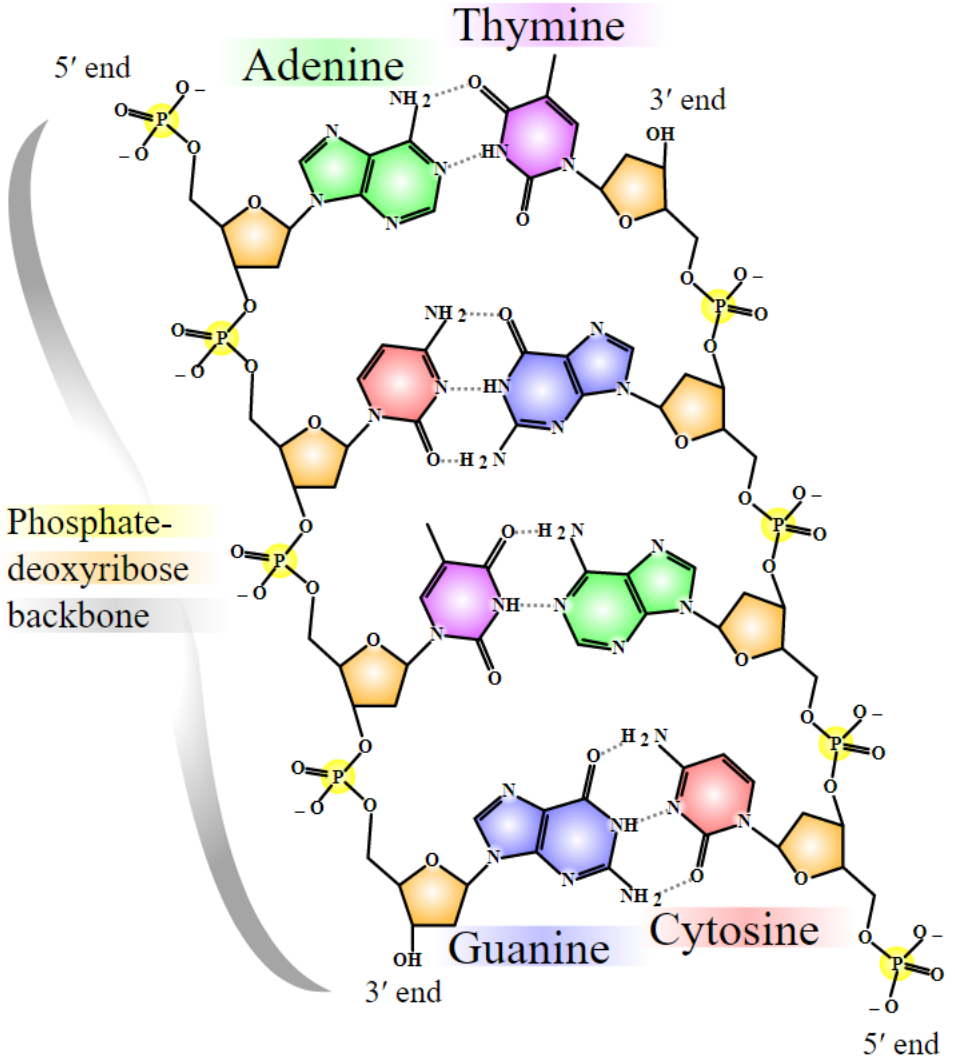

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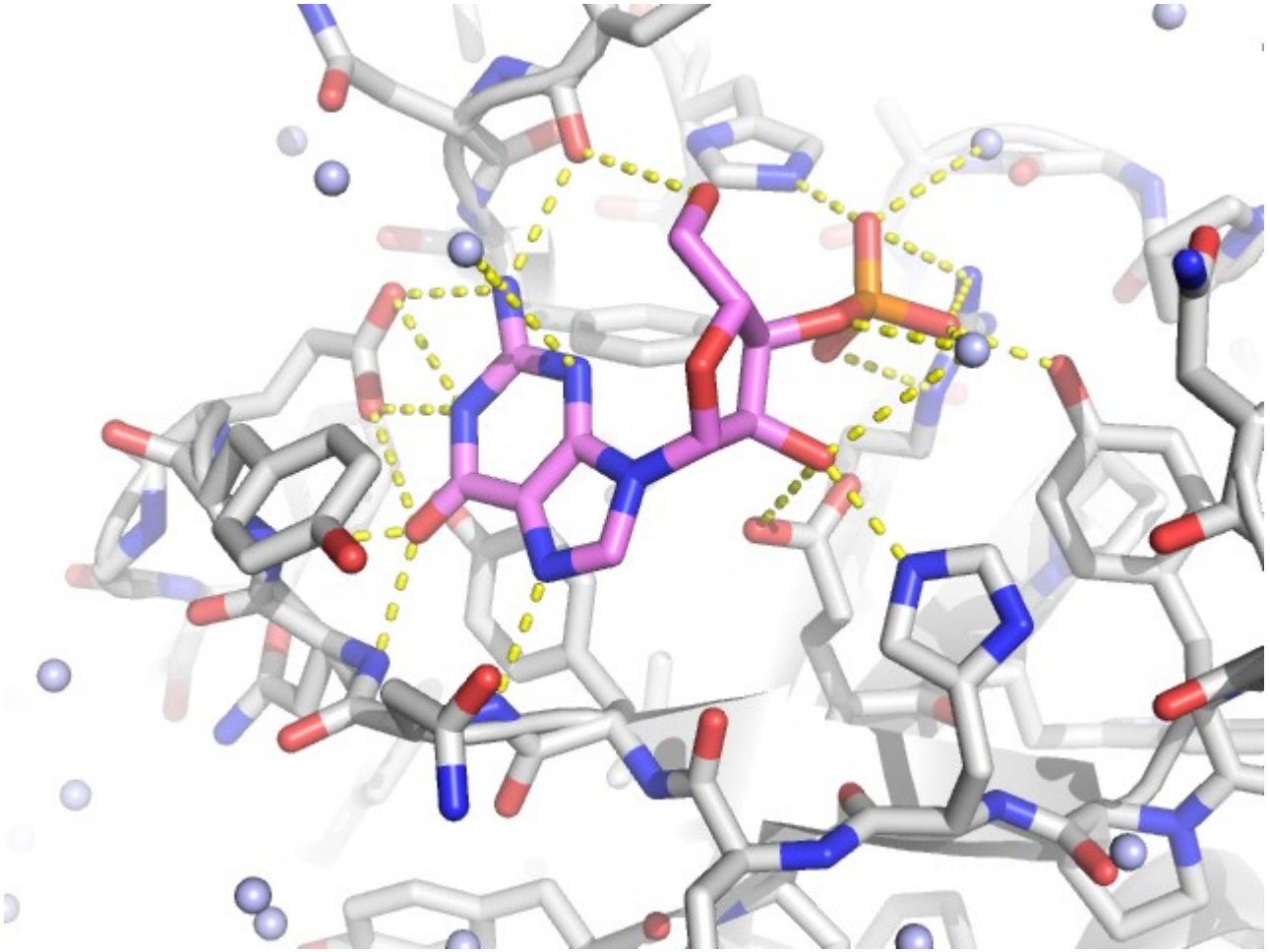

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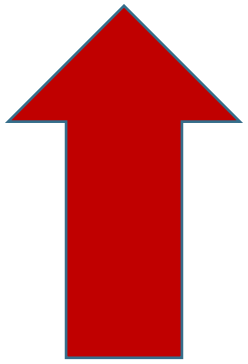

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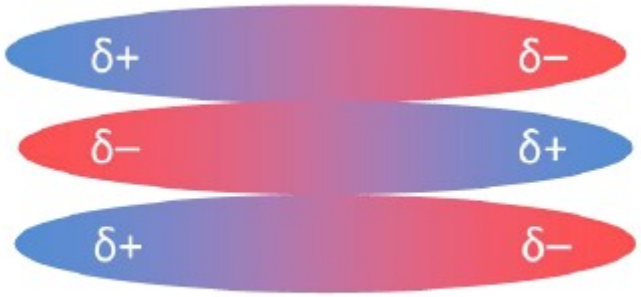

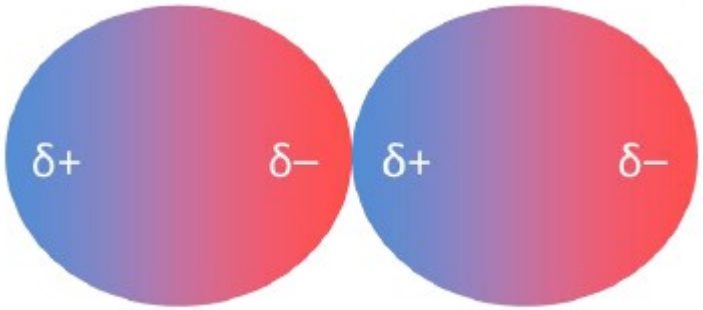

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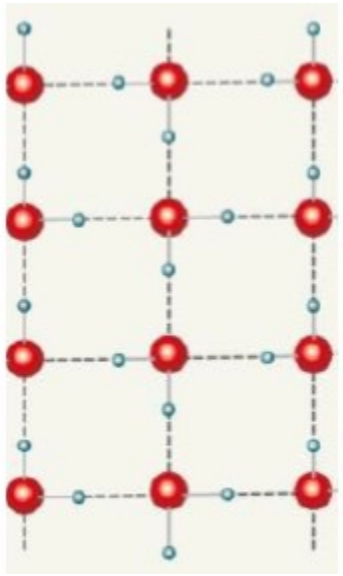

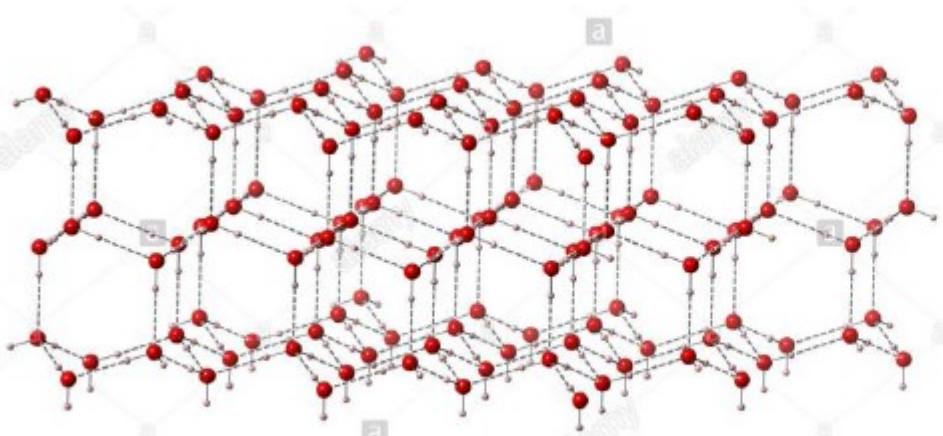

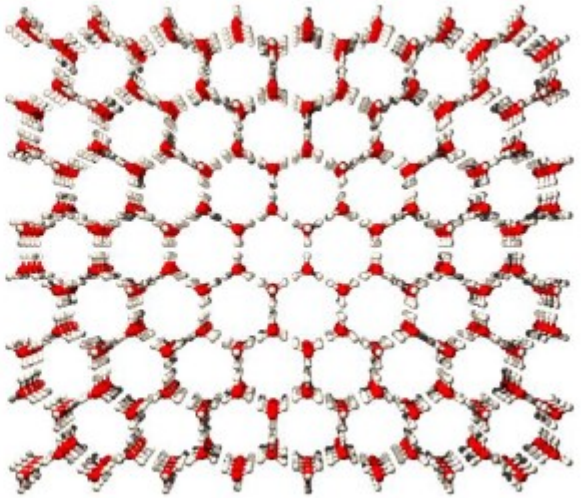

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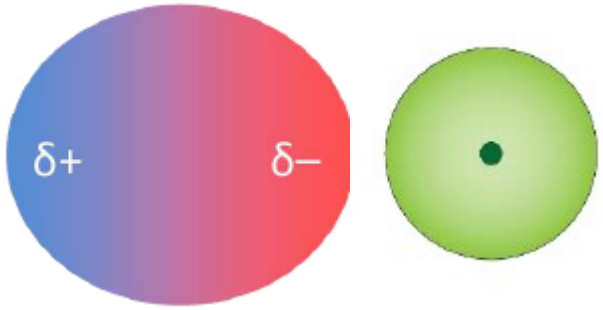

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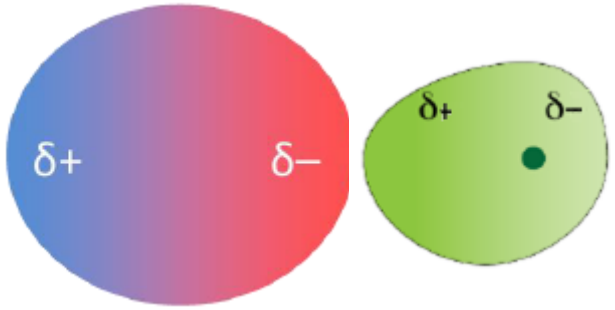

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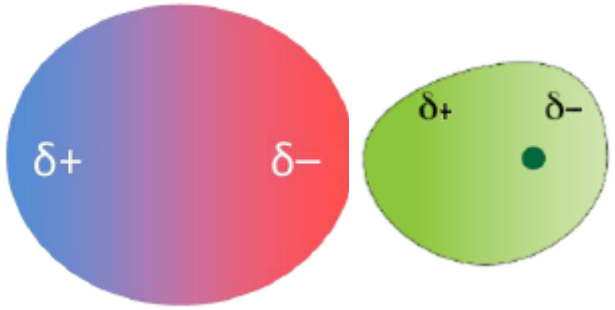

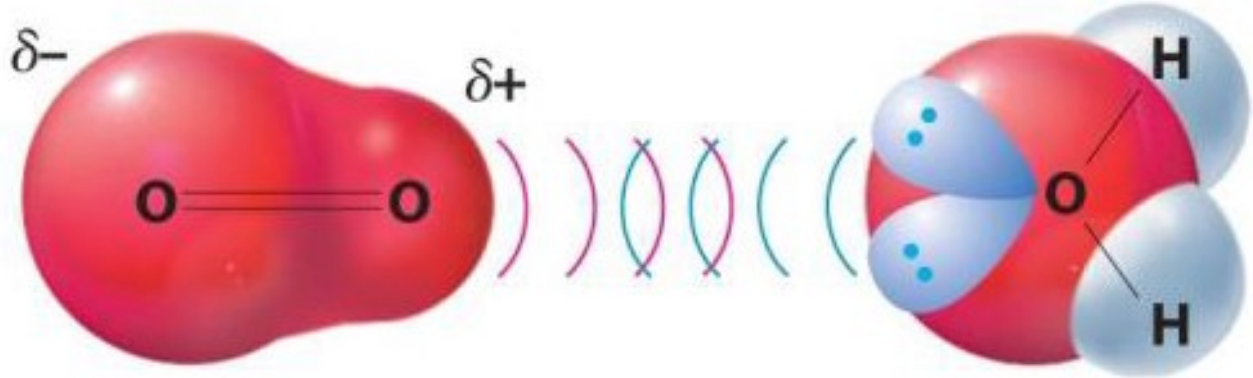

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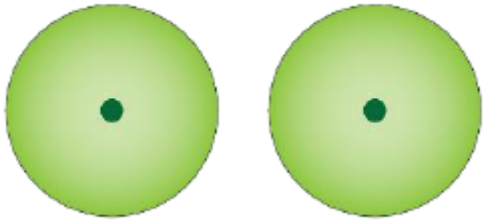

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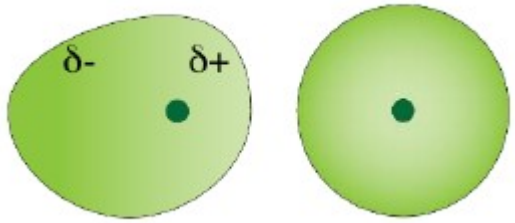

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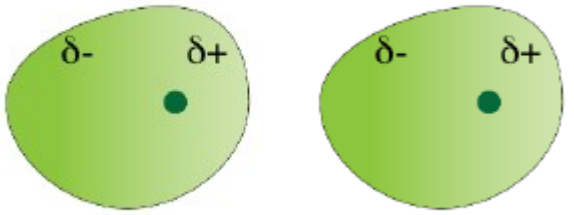
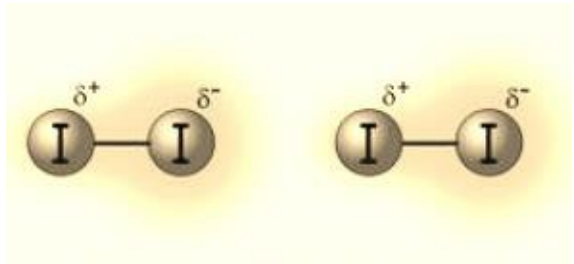


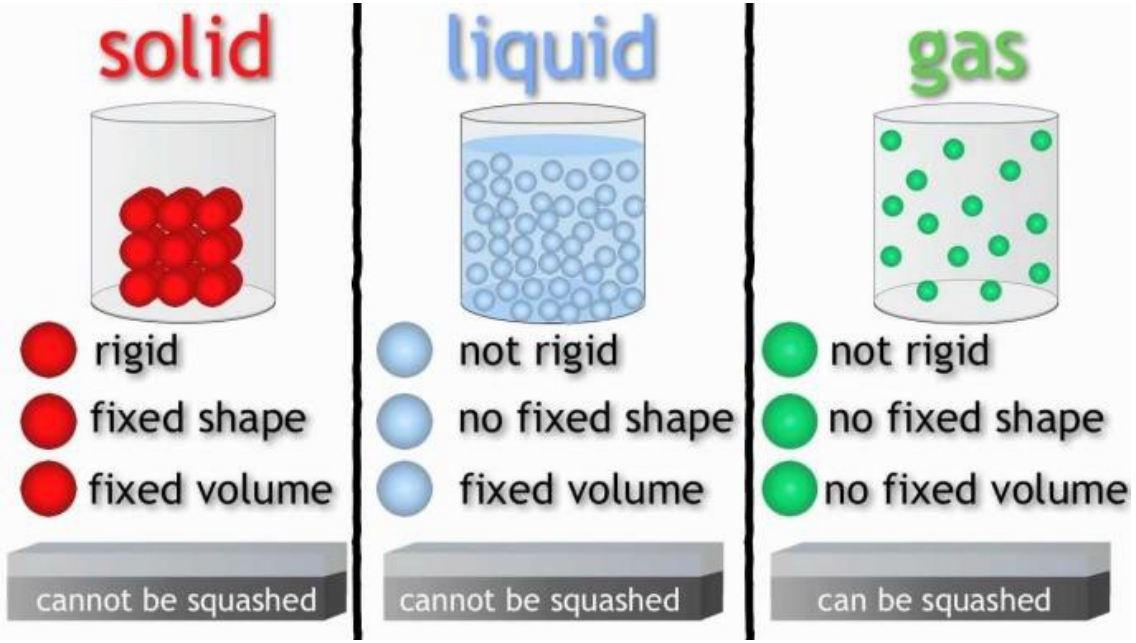


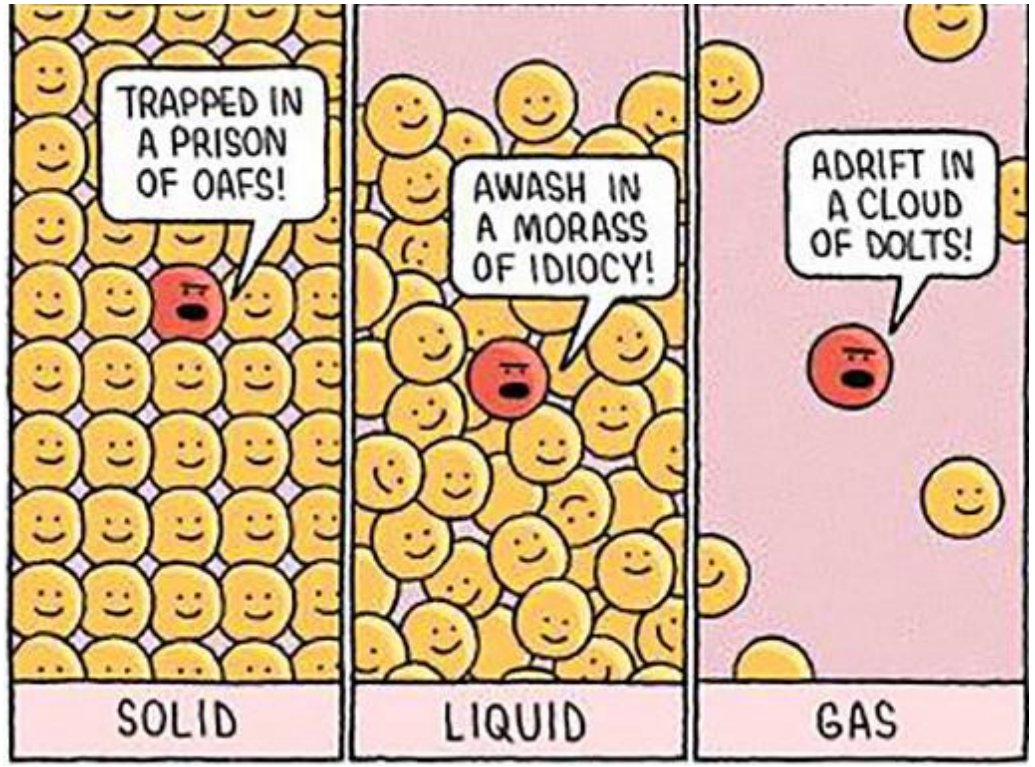
Legami - scale di energia:

Tipo di legame	Energia tipica (kJ/mol)
Ionico	400 - oltre 1000
Covalente	200 - 500 (singolo); 500 - 700 (doppio); 800 - 1000 (triplo)
Metallico	150 (molto variabile, Hg: 68, W: 850)

Tipo di legame intermolecolare	Energia tipica (kJ/mol)
ione – dipolo permanente	10 - 50
legame a idrogeno	10 - 40
dipolo permanente – dipolo permanente	3 - 4
dipolo permanente – dipolo indotto	<1 - 10
dipolo indotto – dipolo indotto	<1 - 10

Gli stati della materia:





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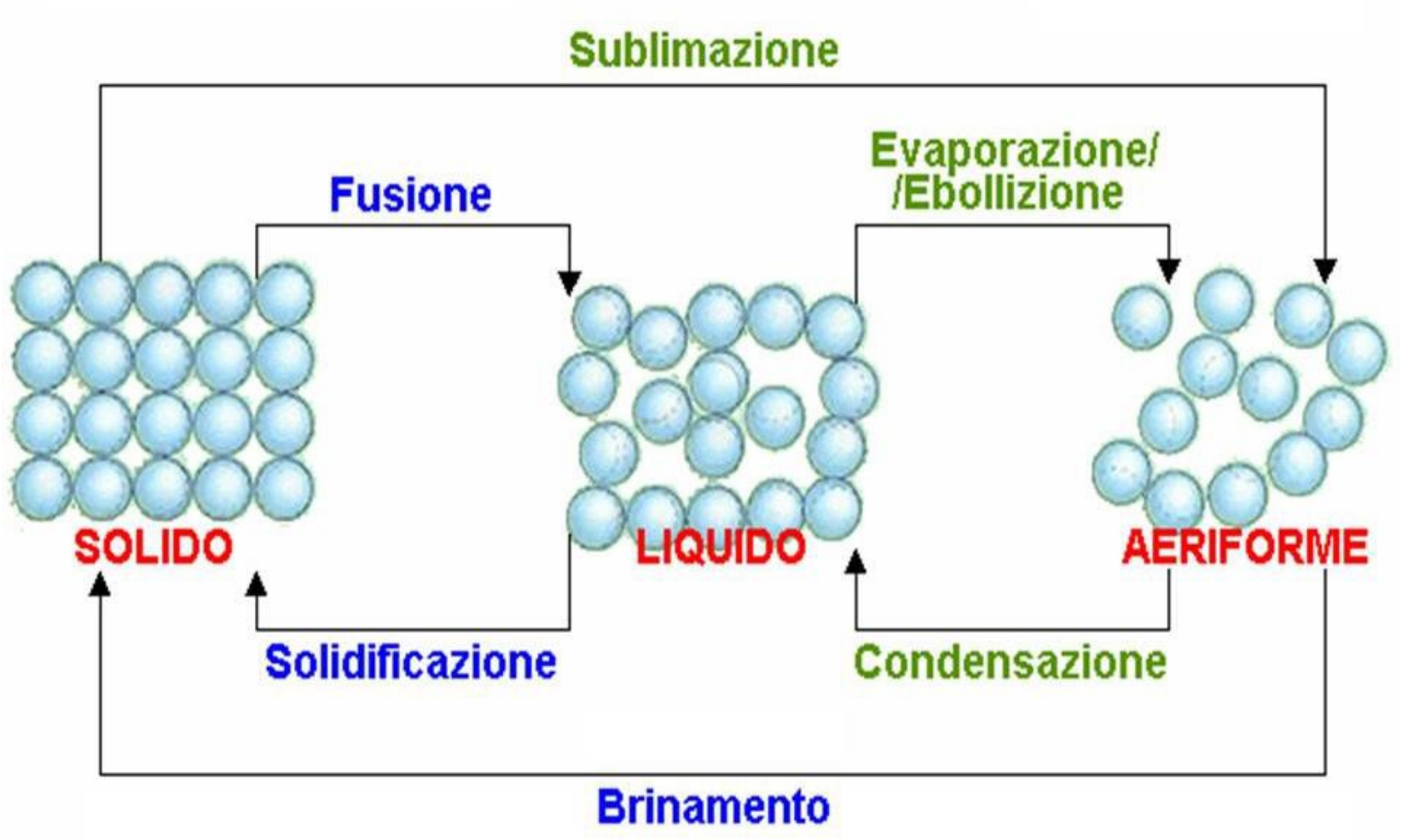
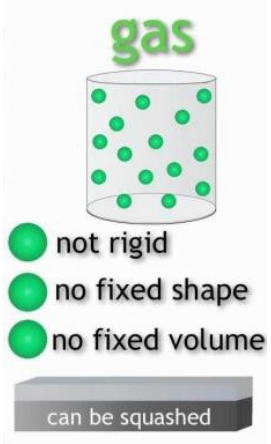
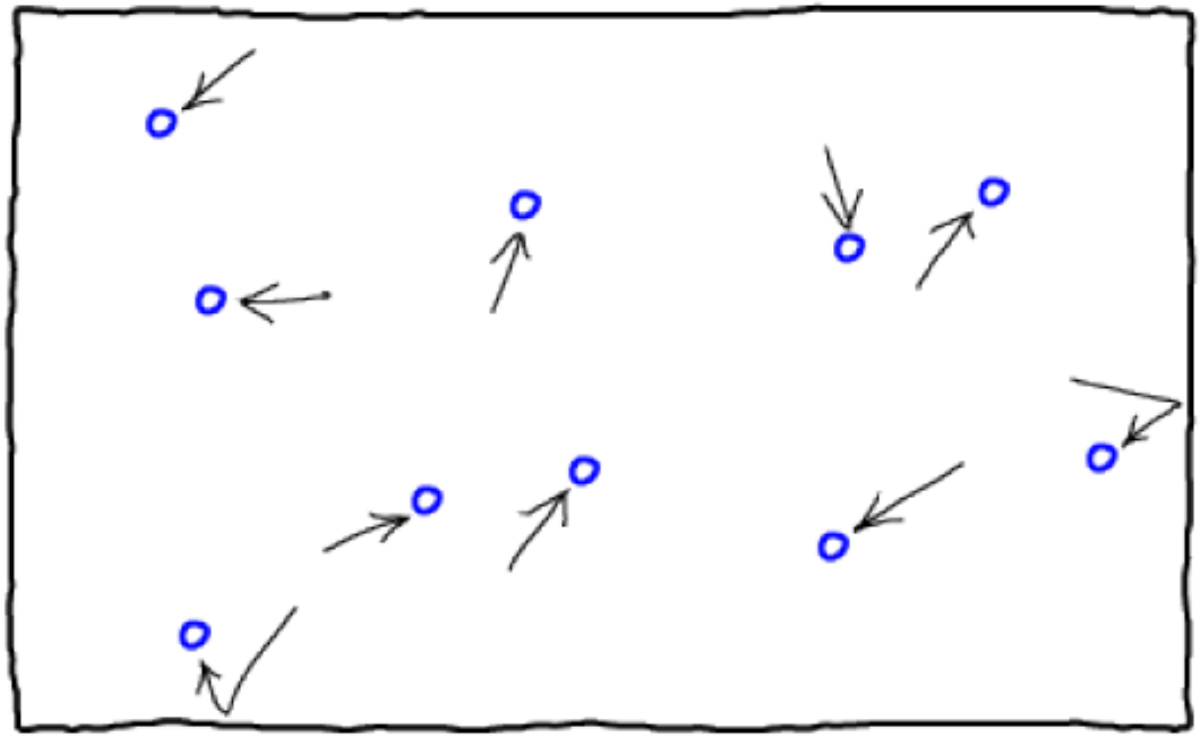


Gli stati della materia – I gas:





Gli stati della materia – I gas:

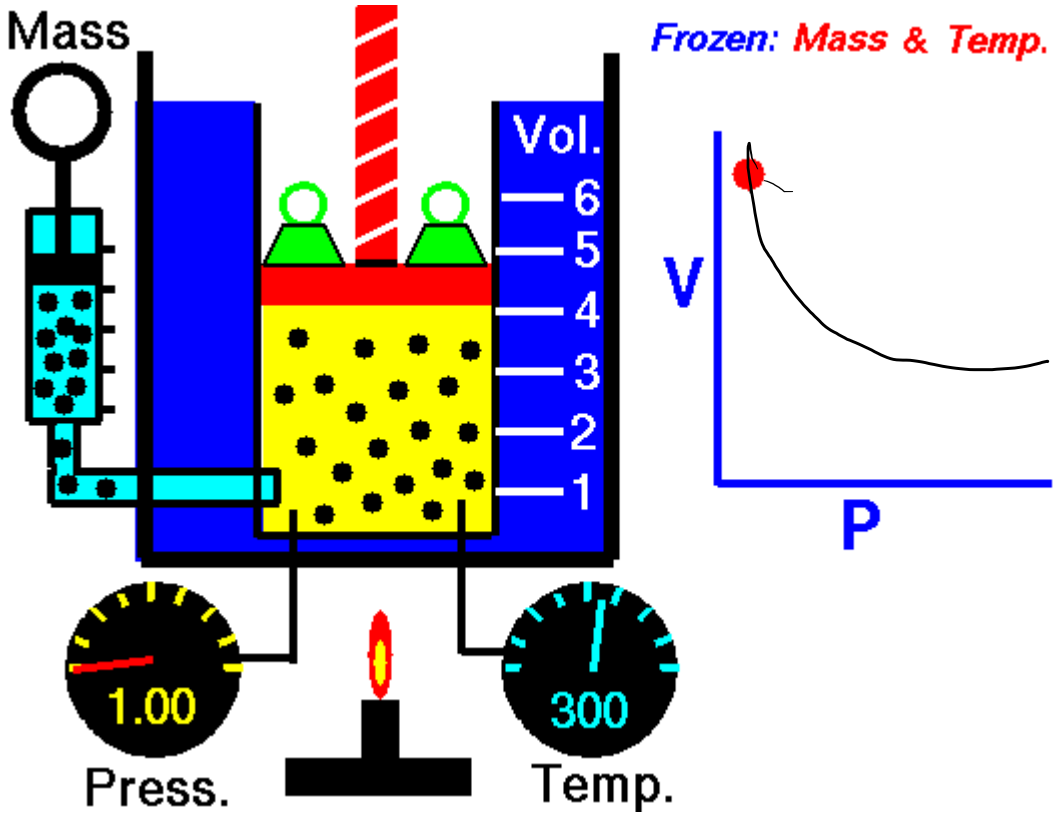
Leggi:

PV = k (Boyle)

V/T = k (Charles)

P/T = k (Gay-Lussac)

V/n = k (Avogadro)



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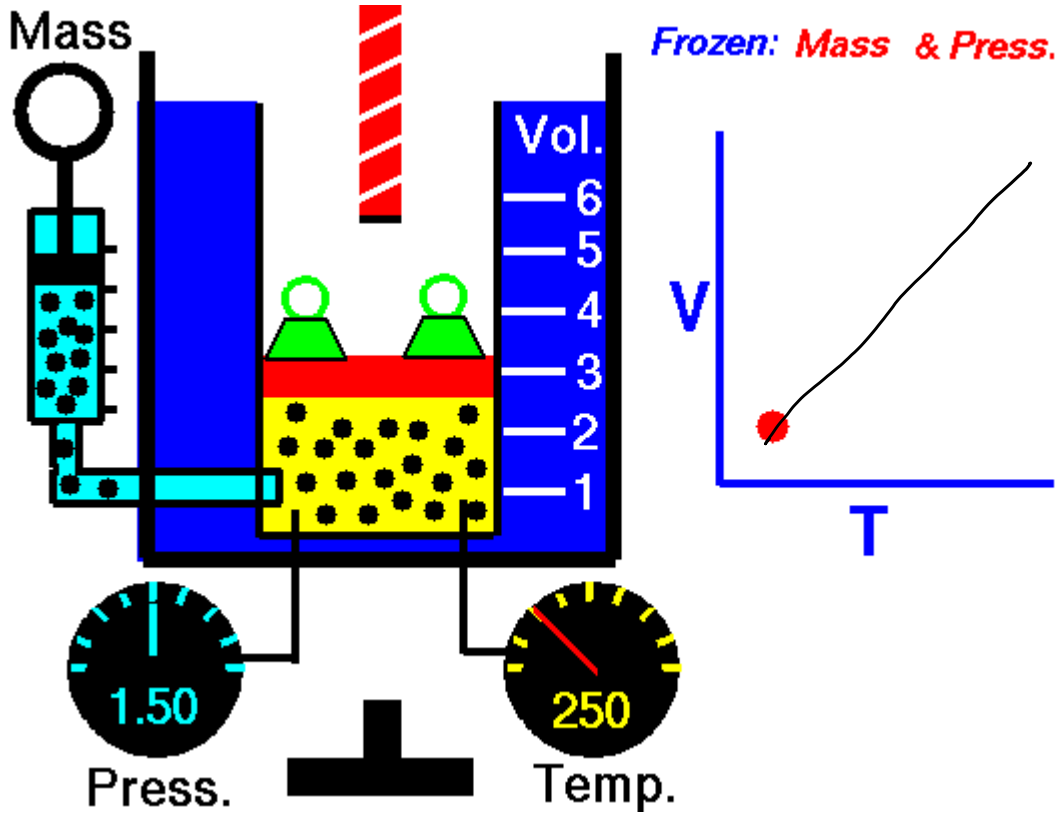

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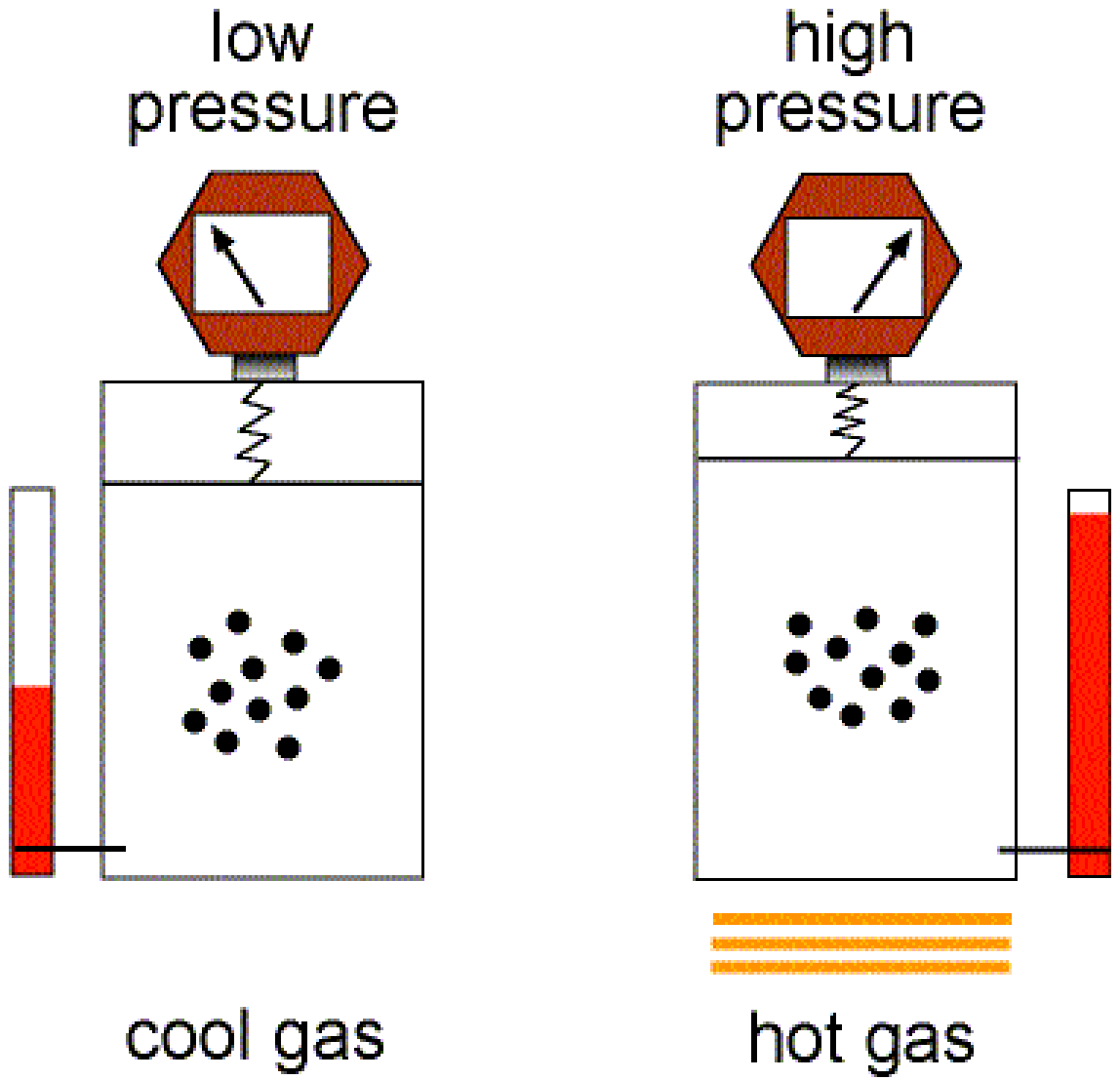

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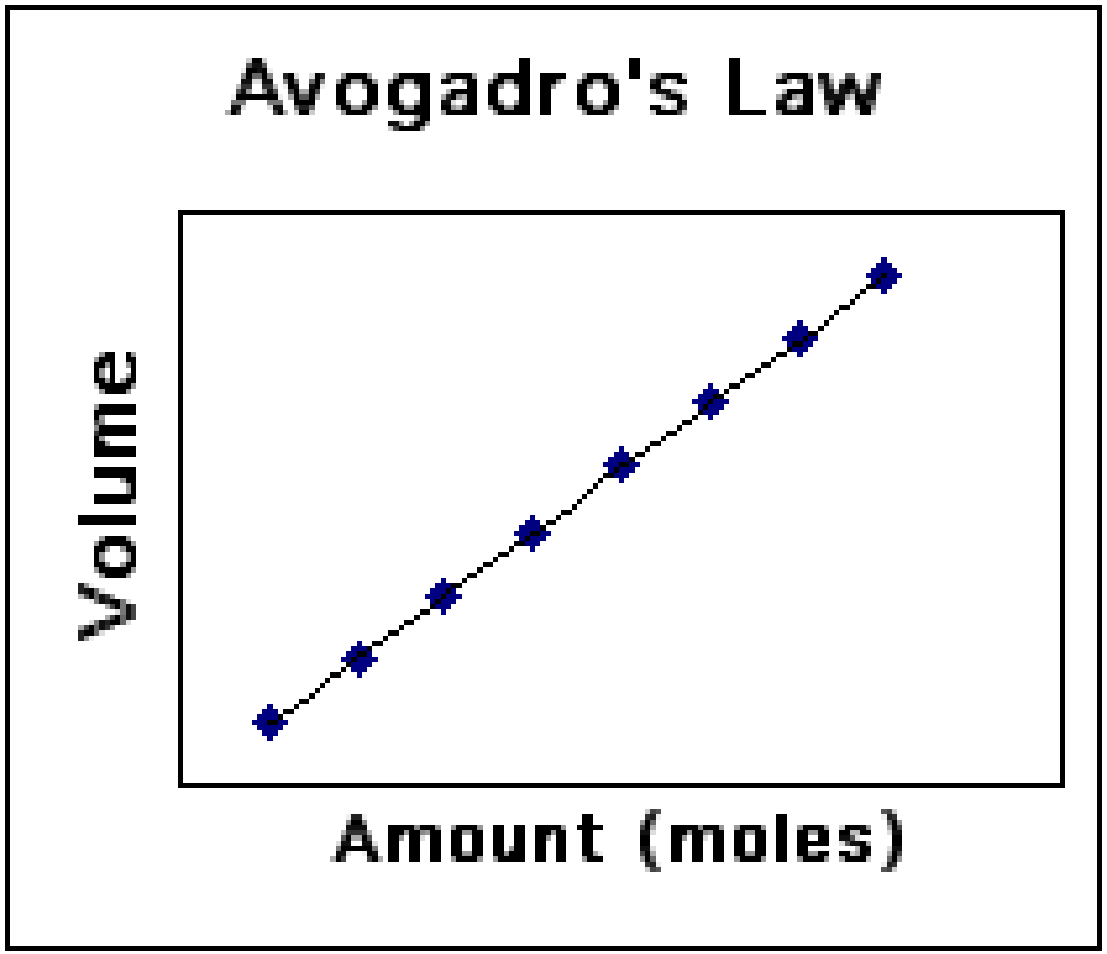
Volumi uguali di gas diversi, a parità di pressione e temperatura, contengono la **stessa quantità di molecole**.



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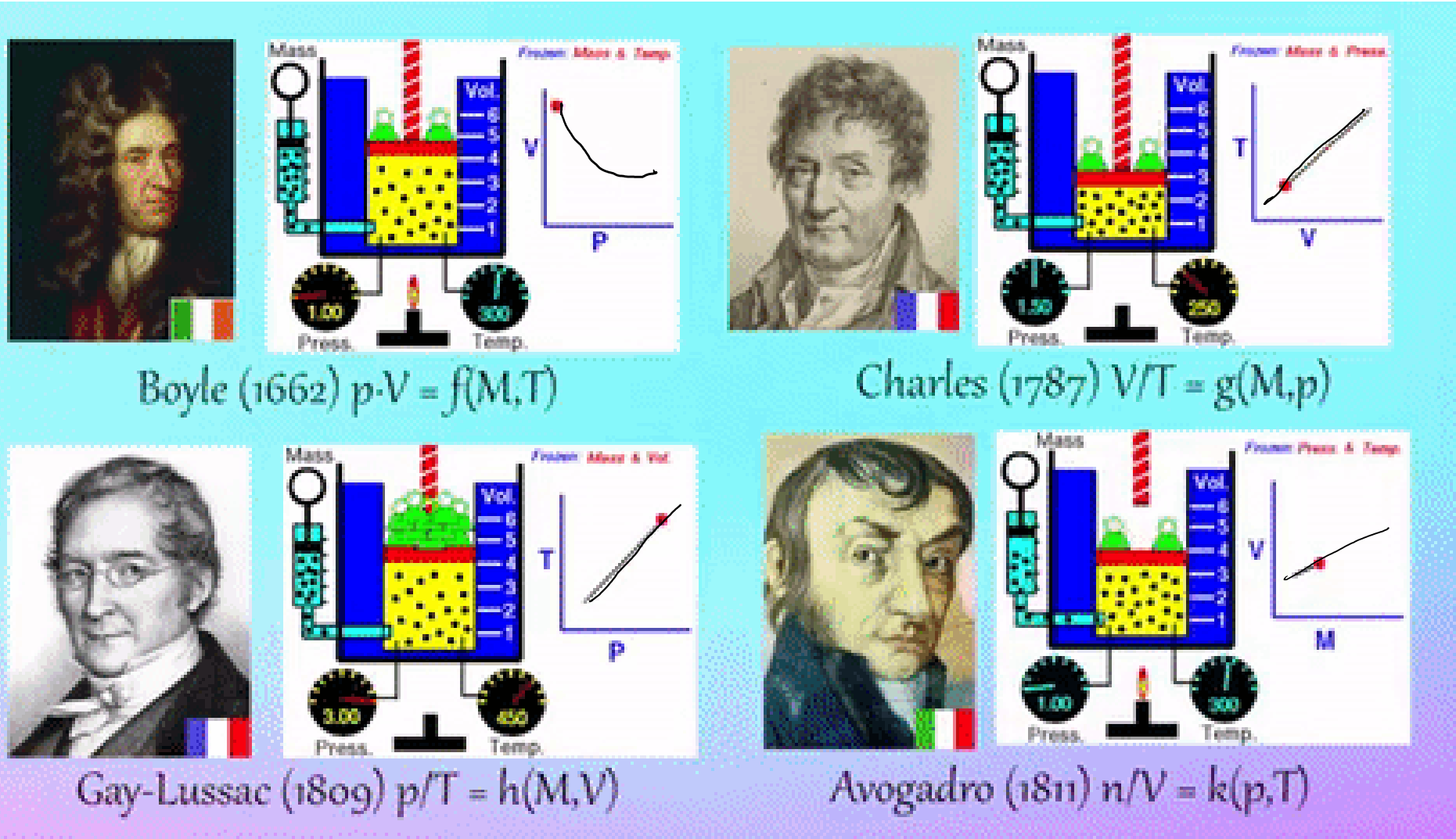

Gli stati della materia – I gas:

Leggi:

$PV = k$
$V/T = k$
$P/T = k$
$V/n = k$