

State properties		
state property: determines the macros	scopic state of a physical system	
state properties of single component gases: amount of matter, pressure, volume, temperature <i>n</i> , <i>p</i> , <i>V</i> , <i>T</i>		
amount of matter	denoted by <i>n</i> name of the unit: mole (denoted by mol) 1 mol matter contains $N_{\rm A} = 6,022 \cdot 10^{23}$ particles, <u>Avogadro constant</u>	
pressure	definition $p = F/A$ , (force <i>F</i> acting perpendicularly on area <i>A</i> ) SI unit <u>pascal</u> (denoted by: Pa): 1 Pa = 1 N m <sup>-2</sup> 1 bar= 10 <sup>5</sup> Pa; 1 atm=760 Hgmm=760 torr=101325 Pa	

	State properties 2	
state properties of single component gases: <i>n</i> , <i>p</i> , <i>V</i> , <i>T</i>		
volume	denoted by <i>V</i> , SI unit: $m^3$ volume of one mole matter $V_m$ molar volume	
temperature	characterizes the <u>thermal state</u> of a body many features of a matter depend on their thermal state: <i>e.g.</i> volume of a liquid, colour of a metal	
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