

# Ideal gases

## A-Level Physics · Vocabulary

| English                                                                                                       | 中文          | Pinyin                     |
|---------------------------------------------------------------------------------------------------------------|-------------|----------------------------|
|  amount of substance         | 物质的量        | wù zhì dì liàng            |
| # mole                                                                                                        | 摩尔          | mó ěr                      |
|  kelvin                      | 开尔文         | kāi ěr wén                 |
| $\Sigma$ Avogadro constant                                                                                    | 阿伏伽德罗常<br>量 | ā fú gā dé luó cháng liàng |
|  atom                        | 原子          | yuán zi                    |
|  monatomic                   | 单原子         | dān yuán zi                |
|  molecule                    | 分子          | fēn zǐ                     |
|  molar mass                  | 摩尔质量        | mó ěr zhì liàng            |
|  ideal gas                  | 理想气体        | lǐ xiǎng qì tǐ             |
|  thermodynamic temperature | 热力学温度       | rè lì xué wēn dù           |
|  equation of state         | 状态方程        | zhuàng tài fāng chéng      |
|  pressure                  | 压强          | yā qiáng                   |
|  volume                    | 体积          | tǐ jī                      |
|  molar gas constant        | 摩尔气体常量      | mó ěr qì tǐ cháng liàng    |
|  Boltzmann constant        | 玻尔兹曼常量      | bō ěr zī màn cháng liàng   |
|  Boyle's law               | 玻意耳定律       | bō yì ěr dìng lǜ           |
|  Charles's law             | 查理定律        | chá lǐ dìng lǜ             |
|  pressure law              | 气体压强定律      | qì tǐ yā qiáng dìng lǜ     |
|  kinetic theory            | 分子动理论       | fēn zǐ dòng lǐ lùn         |
|  random motion             | 无规则运动       | wú guī zé yùn dòng         |
|  intermolecular            | 分子间         | fēn zǐ jiān                |
|  elastic collision         | 弹性碰撞        | tán xìng pèng zhuàng       |
|  momentum                  | 动量          | dòng liàng                 |
|  impulse                   | 冲量          | chōng liàng                |

| English                                    | 中文   | Pinyin              |
|--------------------------------------------|------|---------------------|
| $\overline{x^2}$ mean square               | 均方   | jūn fāng            |
| $\overline{v^2}$ mean-square speed         | 均方速率 | jūn fāng sù lǜ      |
| $\sqrt{\overline{x^2}}$ root-mean-square   | 均方根  | jūn fāng gēn        |
| $\rightarrow$ translational kinetic energy | 平动动能 | píng dòng dòng néng |
| $\hookrightarrow$ internal energy          | 内能   | nèi néng            |
| $\leftrightarrow$ kinetic energy           | 动能   | dòng néng           |