

T1 atom	T1 nucleus	T1 proton
T1 neutron	T1 electron	T1 shell
T1 relative charge	T1 relative mass	T1 neutral

T1 质子 zhì zì	T1 原子核 yuán zǐ hé	T1 原子 yuán zì
T1 壳层 ké céng	T1 电子 diàn zì	T1 中子 zhōng zì
T1 中性 zhōng xìng	T1 相对质量 xiāng duì zhì liàng	T1 相对电荷 xiāng duì diàn hè

T1

proton number

T1

atomic number

T1

nucleon number

T1

mass number

T1

nucleon

T1

ion

T1

electric field

T1

deflection

T1

atomic radius

T1 核子数 hé zǐ shù	T1 原子序数 yuán zì xù shù	T1 质子数 zhì zì shù
T1 离子 lí zì	T1 核子 hé zǐ	T1 质量数 zhì liàng shù
T1 原子半径 yuán zì bàn jìng	T1 偏转 piān zhuǎn	T1 电场 diàn chǎng

T1

ionic radius

T1

period

T1

nuclear charge

T1

shielding

T1

group

T1

cation

T1

anion

T1

repulsion

T1

isotope

T1 核电荷 hé diàn hè	T1 周期 zhōu qī	T1 离子半径 lí zi bàn jìng
T1 阳离子 yáng lí zi	T1 族 zú	T1 屏蔽 píng bì
T1 同位素 tóng wèi sù	T1 排斥 pái chì	T1 阴离子 yīn lí zi

T1 chemical properties	T1 physical properties	T1 density
T1 principal quantum number	T1 sub-shell	T1 orbital
T1 electronic configuration	T1 ground state	T1 noble gas

T1 密度 mì dù	T1 物理性质 wù lǐ xìng zhì	T1 化学性质 huà xué xìng zhì
T1 轨道 guǐ dào	T1 亚层 yà céng	T1 主量子数 zhǔ liàng zǐ shù
T1 稀有气体 xī yǒu qì tǐ	T1 基态 jī tài	T1 电子排布 diàn zǐ pái bù

T1	T1	T1
spin	sphere	free radical
T1	T1	T1
unpaired electrons	first ionisation energy	successive ionisation energies
T1	T2	T2
spin-pair repulsion	atom	unified atomic mass unit

T1 自由基 zì yóu jī	T1 球形 qiú xíng	T1 自旋 zì xuán
T1 逐级电离能 zhú jí diàn lí néng	T1 第一电离能 dì yī diàn lí néng	T1 未成对电子 wèi chéng duì diàn zǐ
T2 统一原子质量单位 tǒng yī yuán zǐ zhì liàng dān wèi	T2 原子 yuán zǐ	T1 自旋成对排斥 zì xuán chéng duì pái chì

T2 relative atomic mass	T2 isotope	T2 relative isotopic mass
T2 relative molecular mass	T2 molecule	T2 relative formula mass
T2 mole	T2 Avogadro constant	T2 ion

T2 相对同位素质量 xiāng duì tóng wèi sù zhì liàng	T2 同位素 tóng wèi sù	T2 相对原子质量 xiāng duì yuán zì zhì liàng
T2 相对式量 xiāng duì shì liàng	T2 分子 fēn zǐ	T2 相对分子质量 xiāng duì fēn zǐ zhì liàng
T2 离子 lí zǐ	T2 阿伏伽德罗常量 ā fú gā dé luó cháng liàng	T2 摩尔 mó ěr

T2 molar mass	T2 compound	T2 ionic compound
T2 oxidation number	T2 balanced	T2 state symbols
T2 aqueous	T2 ionic equation	T2 spectator ions

T2 离子化合物 lí zi huà hé wù	T2 化合物 huà hé wù	T2 摩尔质量 mó ěr zhì liàng
T2 状态符号 zhuàng tài fú hào	T2 配平 pèi píng	T2 氧化数 yǎng huà shù
T2 旁观离子 páng guān lí zi	T2 离子方程式 lí zi fāng chéng shì	T2 水溶液 shuǐ róng yè

T2 empirical formula	T2 molecular formula	T2 water of crystallisation
T2 hydrated	T2 anhydrous	T2 stoichiometry
T2 percentage yield	T2 limiting reagent	T2 excess reagent

T2 结晶水 jié jīng shuǐ	T2 分子式 fēn zǐ shì	T2 实验式 shí yàn shì
T2 化学计量 huà xué jì liàng	T2 无水的 wú shuǐ de	T2 水合的 shuǐ hé de
T2 过量试剂 guò liàng shì jì	T2 限量试剂 xiàn liàng shì jì	T2 产率 chǎn lǜ

T2 hydrocarbons	T2 concentration	T2 solute
T2 solution	T2 titration	T2 significant figures
T3 electronegativity	T3 electron	T3 nuclear charge

T2 溶质 róng zhì	T2 浓度 nóng dù	T2 碳氢化合物 tàn qīng huà hé wù
T2 有效数字 yǒu xiào shù zì	T2 滴定 dī dìng	T2 溶液 róng yè
T3 核电荷 hé diàn hè	T3 电子 diàn zǐ	T3 电负性 diàn fù xìng

T3 atomic radius	T3 shielding	T3 Pauling electronegativity
T3 ionic bonding	T3 electrostatic attraction	T3 ion
T3 cation	T3 anion	T3 lattice

T3 鲍林电负性 bào lín diàn fù xìng	T3 屏蔽 píng bì	T3 原子半径 yuán zǐ bàn jìng
T3 离子 lí zǐ	T3 静电引力 jìng diàn yǐn lì	T3 离子键 lí zǐ jiàn
T3 晶格 jīng gé	T3 阴离子 yīn lí zǐ	T3 阳离子 yáng lí zǐ

T3 metallic bonding	T3 delocalised electrons	T3 covalent bonding
T3 expand the octet	T3 coordinate bond	T3 orbital
T3 sigma bond	T3 overlap	T3 pi bond

T3 共价键 gòng jià jiàn	T3 离域电子 lí yù diàn zǐ	T3 金属键 jīn shǔ jiàn
T3 轨道 guǐ dào	T3 配位键 pèi wèi jiàn	T3 扩展八隅体 kuò zhǎn bā yú tǐ
T3 π 键 π jiàn	T3 重叠 chóng dié	T3 σ 键 σ jiàn

T3 hybridisation	T3 bond energy	T3 bond length
T3 VSEPR theory	T3 lone pair	T3 bonding pair
T3 bond angle	T3 linear	T3 trigonal planar

T3 键长 jiàn zhǎng	T3 键能 jiàn néng	T3 杂化 zá huà
T3 成键电子对 chéng jiàn diàn zì duì	T3 孤对电子 gū duì diàn zì	T3 价层电子对互斥理论 jià céng diàn zì duì hù chì lǐ lùn
T3 平面三角形 píng miàn sān jiǎo xíng	T3 直线形 zhí xiàn xíng	T3 键角 jiàn jiǎo

T3 tetrahedral	T3 pyramidal	T3 bent
T3 trigonal bipyramidal	T3 octahedral	T3 intermolecular forces
T3 molecule	T3 polarity	T3 dipole

T3 角形 jiǎo xíng	T3 三角锥形 sān jiǎo zhuī xíng	T3 四面体形 sì miàn tǐ xíng
T3 分子间作用力 fēn zǐ jiàn zuò yòng lì	T3 八面体形 bā miàn tǐ xíng	T3 三角双锥形 sān jiǎo shuāng zhuī xíng
T3 偶极 ǒu jí	T3 极性 jí xìng	T3 分子 fēn zǐ

T3 dipole moment	T3 van der Waals' forces	T3 London dispersion forces
T3 instantaneous dipole	T3 induced dipole	T3 permanent dipole
T3 hydrogen bonding	T3 boiling point	T3 surface tension

T3 伦敦色散力 lún dūn sè sàn lì	T3 范德华力 fàn dé huá lì	T3 偶极矩 ǒu jí jǔ
T3 永久偶极 yǒng jiǔ ǒu jí	T3 诱导偶极 yòu dǎo ǒu jí	T3 瞬时偶极 shùn shí ǒu jí
T3 表面张力 biǎo miàn zhāng lì	T3 沸点 fèi diǎn	T3 氢键 qīng jiàn

T3 dot-and-cross diagram	T4 collide	T4 pressure
T4 ideal gas	T4 intermolecular forces	T4 real gas
T4 ideal gas equation	T4 kelvin	T4 gas constant

T4 压强 yā qiáng	T4 碰撞 pèng zhuàng	T3 点叉图 diǎn chā tú
T4 实际气体 shí jì qì tǐ	T4 分子间作用力 fēn zǐ jiàn zuò yòng lì	T4 理想气体 lǐ xiǎng qì tǐ
T4 气体常量 qì tǐ cháng liàng	T4 开尔文 kāi ěr wén	T4 理想气体方程 lǐ xiǎng qì tǐ fāng chéng

T4 molar mass	T4 crystalline solid	T4 giant ionic
T4 lattice	T4 ion	T4 simple molecular
T4 molecule	T4 fullerene	T4 giant molecular

T4 离子晶体 lí zi jīng tǐ	T4 晶体 jīng tǐ	T4 摩尔质量 mó ěr zhì liàng
T4 分子晶体 fēn zǐ jīng tǐ	T4 离子 lí zi	T4 晶格 jīng gé
T4 原子晶体 yuán zi jīng tǐ	T4 富勒烯 fù lēi xī	T4 分子 fēn zǐ

T4 covalent bonds	T4 silicon(IV) oxide	T4 graphite
T4 diamond	T4 giant metallic	T4 delocalised electrons
T4 melting point	T4 boiling point	T4 electrical conductivity

T4 石墨 shí mò	T4 二氧化硅 èr yǎng huà guī	T4 共价键 gòng jià jiàn
T4 离域电子 lí yù diàn zǐ	T4 金属晶体 jīn shǔ jīng tǐ	T4 金刚石 jīn gāng shí
T4 导电性 dǎo diàn xìng	T4 沸点 fèi diǎn	T4 熔点 róng diǎn

T4 solubility	T5 enthalpy change	T5 exothermic
T5 endothermic	T5 reaction pathway diagram	T5 activation energy
T5 standard conditions	T5 enthalpy change of reaction	T5 enthalpy change of formation

T5 放热 fàng rè	T5 焓变 hán biàn	T4 溶解度 róng jiě dù
T5 活化能 huó huà néng	T5 反应路径图 fǎn yìng lù jìng tú	T5 吸热 xī rè
T5 生成焓变 shēng chéng hán biàn	T5 反应焓变 fǎn yìng hán biàn	T5 标准条件 biāo zhǔn tiáo jiàn

T5 enthalpy change of combustion	T5 enthalpy change of neutralisation	T5 bond energy
T5 specific heat capacity	T5 Hess's law	T5 energy cycle
T6 oxidation number	T6 electron	T6 redox

T5 键能 jiàn néng	T5 中和焓变 zhōng hé hán biàn	T5 燃烧焓变 rán shāo hán biàn
T5 能量循环 néng liàng xún huán	T5 盖斯定律 gài sī dìng lǜ	T5 比热容 bǐ rè róng
T6 氧化还原 yǎng huà huán yuán	T6 电子 diàn zi	T6 氧化数 yǎng huà shù

T6 oxidation	T6 reduction	T6 electron transfer
T6 disproportionation	T6 oxidising agent	T6 reducing agent
T7 reversible reaction	T7 forward reaction	T7 reverse reaction

T6 电子转移 diàn zǐ zhuǎn yí	T6 还原 huán yuán	T6 氧化 yǎng huà
T6 还原剂 huán yuán jì	T6 氧化剂 yǎng huà jì	T6 歧化 qí huà
T7 逆反应 nì fǎn yìng	T7 正反应 zhèng fǎn yìng	T7 可逆反应 kě nì fǎn yìng

T7 closed system	T7 dynamic equilibrium	T7 Le Chatelier's principle
T7 equilibrium	T7 catalyst	T7 equilibrium constant
T7 partial pressure	T7 mole fraction	T7 Haber process

T7 勒夏特列原理 lēi xià tè liè yuán lǐ	T7 动态平衡 dòng tài píng héng	T7 封闭系统 fēng bì xì tǒng
T7 平衡常数 píng héng cháng shù	T7 催化剂 cuī huà jì	T7 平衡 píng héng
T7 哈伯法 hā bó fǎ	T7 摩尔分数 mó ěr fēn shù	T7 分压 fēn yā

T7 Contact process	T7 proton	T7 acid
T7 proton donor	T7 base	T7 proton acceptor
T7 strong acid	T7 strong base	T7 dissociated

T7 酸 suān	T7 质子 zhì zi	T7 接触法 jiē chù fǎ
T7 质子受体 zhì zi shòu tǐ	T7 碱 jiǎn	T7 质子供体 zhì zi gōng tǐ
T7 解离 jiě lí	T7 强碱 qiáng jiǎn	T7 强酸 qiáng suān

T7 weak acid	T7 weak base	T7 universal indicator
T7 Neutralisation	T7 salt	T7 titration
T7 titration curve	T7 indicator	T8 rate of reaction

T7 通用指示剂 tōng yòng zhǐ shì jì	T7 弱碱 ruò jiǎn	T7 弱酸 ruò suān
T7 滴定 dī dìng	T7 盐 yán	T7 中和 zhōng hé
T8 反应速率 fǎn yìng sù lǜ	T7 指示剂 zhǐ shì jì	T7 滴定曲线 dī dìng qū xiàn

T8 collide	T8 collision frequency	T8 effective collision
T8 non-effective collision	T8 activation energy	T8 Boltzmann distribution
T8 catalyst	T8 catalysis	T8 reaction mechanism

T8 有效碰撞 yǒu xiào pèng zhuàng	T8 碰撞频率 pèng zhuàng pín lǜ	T8 碰撞 pèng zhuàng
T8 玻尔兹曼分布 bō ěr zī màn fēn bù	T8 活化能 huó huà néng	T8 无效碰撞 wú xiào pèng zhuàng
T8 反应机理 fǎn yìng jī lǐ	T8 催化作用 cuī huà zuò yòng	T8 催化剂 cuī huà jì

T8 reaction pathway diagram	T8 homogeneous catalyst	T8 heterogeneous catalyst
T9 periodicity	T9 period	T9 atomic radius
T9 ionic radius	T9 melting point	T9 electrical conductivity

T8 多相催化剂 duō xiāng cuī huà jì	T8 均相催化剂 jūn xiāng cuī huà jì	T8 反应路径图 fǎn yìng lù jìng tú
T9 原子半径 yuán zi bàn jìng	T9 周期 zhōu qī	T9 周期性 zhōu qī xìng
T9 导电性 dǎo diàn xìng	T9 熔点 róng diǎn	T9 离子半径 lí zi bàn jìng

T9 giant metallic	T9 giant molecular	T9 simple molecular
T9 oxidation number	T9 valence shell	T9 electron
T9 oxide	T9 amphoteric	T9 hydroxide

T9 分子晶体 fēn zǐ jīng tǐ	T9 原子晶体 yuán zì jīng tǐ	T9 金属晶体 jīn shǔ jīng tǐ
T9 电子 diàn zǐ	T9 价层 jià céng	T9 氧化数 yǎng huà shù
T9 氢氧化物 qīng yǎng huà wù	T9 两性 liǎng xìng	T9 氧化物 yǎng huà wù

T9 hydrolysis	T9 electronegativity	T9 van der Waals' forces
T10 group	T10 reactivity	T10 sulfate
T10 oxide	T10 hydroxide	T10 carbonate

T9 范德华力 fàn dé huá lì	T9 电负性 diàn fù xìng	T9 水解 shuǐ jiě
T10 硫酸盐 liú suān yán	T10 反应活性 fǎn yìng huó xìng	T10 族 zú
T10 碳酸盐 tàn suān yán	T10 氢氧化物 qīng yǎng huà wù	T10 氧化物 yǎng huà wù

T10 thermal decomposition	T10 nitrate	T10 thermal stability
T10 solubility	T11 halogen	T11 group
T11 volatility	T11 instantaneous dipole	T11 induced dipole

T10 热稳定性 rè wěn dìng xìng	T10 硝酸盐 xiāo suān yán	T10 热分解 rè fēn jiě
T11 族 zú	T11 卤素 lǚ sù	T10 溶解度 róng jiě dù
T11 诱导偶极 yòu dǎo ǒu jí	T11 瞬时偶极 shùn shí ǒu jí	T11 挥发性 huī fā xìng

T11 bond energy	T11 oxidising agent	T11 hydrogen halide
T11 thermal stability	T11 halide ion	T11 reducing agent
T11 ammonia	T11 precipitate	T11 oxidation number

T11 卤化氢 lǔ huà qīng	T11 氧化剂 yǎng huà jì	T11 键能 jiàn néng
T11 还原剂 huán yuán jì	T11 卤离子 lǔ lí zì	T11 热稳定性 rè wěn dìng xìng
T11 氧化数 yǎng huà shù	T11 沉淀 chén diàn	T11 氨 ān

T11 disproportionation	T11 water purification	T11 bacteria
T12 triple bond	T12 bond energy	T12 polarity
T12 basicity	T12 lone pair	T12 proton

T11 细菌 xì jūn	T11 水净化 shuǐ jìng huà	T11 歧化 qí huà
T12 极性 jí xìng	T12 键能 jiàn néng	T12 三键 sān jiàn
T12 质子 zhì zǐ	T12 孤对电子 gū duì diàn zǐ	T12 碱性 jiǎn xìng

T12 ammonium ion	T12 coordinate bond	T12 displacement
T12 internal combustion engine	T12 catalytic converter	T12 exhaust gases
T12 photochemical smog	T12 acid rain	T12 sulfur dioxide

T12 置换 zhì huàn	T12 配位键 pèi wèi jiàn	T12 铵离子 ǎn lí zi
T12 尾气 wěi qì	T12 催化转化器 cuī huà zhuǎn huà qì	T12 内燃机 nèi rán jī
T12 二氧化硫 èr yǎng huà liú	T12 酸雨 suān yǔ	T12 光化学烟雾 guāng huà xué yān wù

T13 官能团 guān néng tuán	T13 烷烃 wán tīng	T13 碳氢化合物 tàn qīng huà hé wù
T13 结构式 jié gòu shì	T13 分子式 fēn zǐ shì	T13 通式 tōng shì
T13 实验式 shí yàn shì	T13 骨架式 gǔ jià shì	T13 展开式 zhǎn kāi shì

T13 nomenclature	T13 homologous series	T13 saturated
T13 unsaturated	T13 homolytic fission	T13 free radical
T13 heterolytic fission	T13 nucleophile	T13 electrophile

T13 饱和 bǎo hé	T13 同系列 tóng xì liè	T13 命名法 mìng míng fǎ
T13 自由基 zì yóu jī	T13 均裂 jūn liè	T13 不饱和 bù bǎo hé
T13 亲电试剂 qīn diàn shì jì	T13 亲核试剂 qīn hé shì jì	T13 异裂 yì liè

T13 addition	T13 substitution	T13 elimination
T13 hydrolysis	T13 condensation	T13 initiation
T13 propagation	T13 termination	T13 free-radical substitution

T13 消去 xiāo qù	T13 取代 qǔ dài	T13 加成 jiā chéng
T13 引发 yǐn fā	T13 缩合 suō hé	T13 水解 shuǐ jiě
T13 自由基取代 zì yóu jī qǔ dài	T13 终止 zhōng zhǐ	T13 增长 zēng zhǎng

T13 electrophilic addition	T13 nucleophilic substitution	T13 nucleophilic addition
T13 curly arrow	T13 lone pair	T13 cyclic
T13 hybridisation	T13 planar	T13 sigma bond

T13 亲核加成 qīn hé jiā chéng	T13 亲核取代 qīn hé qǔ dài	T13 亲电加成 qīn diàn jiā chéng
T13 环状 huán zhuàng	T13 孤对电子 gū duì diàn zǐ	T13 弯箭头 wān jiàn tóu
T13 σ 键 σ jiàn	T13 平面 píng miàn	T13 杂化 zá huà

T13 pi bond	T13 isomerism	T13 structural isomerism
T13 chain isomerism	T13 positional isomerism	T13 functional group isomerism
T13 stereoisomerism	T13 geometrical isomerism	T13 restricted rotation

T13 结构异构 jié gòu yì gòu	T13 异构 yì gòu	T13 π 键 π jiàn
T13 官能团异构 guān néng tuán yì gòu	T13 位置异构 wèi zhì yì gòu	T13 链异构 liàn yì gòu
T13 受限旋转 shòu xiàn xuán zhuǎn	T13 几何异构 jǐ hé yì gòu	T13 立体异构 lì tǐ yì gòu

T13

cis

T13

trans

T13

optical isomerism

T13

chiral

T13

chiral centre

T13

enantiomers

T14

alkane

T14

hydrogenation

T14

alkene

T13 旋光异构 xuán guāng yì gòu	T13 反式 fǎn shì	T13 顺式 shùn shì
T13 对映体 duì yìng tǐ	T13 手性中心 shǒu xìng zhōng xīn	T13 手性 shǒu xìng
T14 烯烃 xī tīng	T14 氢化 qīng huà	T14 烷烃 wán tīng

T14 cracking	T14 combustion	T14 complete combustion
T14 incomplete combustion	T14 carbon monoxide	T14 free-radical substitution
T14 ultraviolet light	T14 initiation	T14 free radical

T14 完全燃烧 wán quán rán shāo	T14 燃烧 rán shāo	T14 裂化 liè huà
T14 自由基取代 zì yóu jī qǔ dài	T14 一氧化碳 yī yǎng huà tàn	T14 不完全燃烧 bù wán quán rán shāo
T14 自由基 zì yóu jī	T14 引发 yǐn fā	T14 紫外线 zǐ wài xiàn

T14 propagation	T14 termination	T14 crude oil
T14 fraction	T14 polarity	T14 elimination
T14 halogenoalkane	T14 dehydration	T14 alcohol

T14 原油 yuán yóu	T14 终止 zhōng zhǐ	T14 增长 zēng zhǎng
T14 消去 xiāo qù	T14 极性 jí xìng	T14 馏分 liú fèn
T14 醇 chún	T14 脱水 tuō shuǐ	T14 卤代烷 lǔ dài wán

T14 electrophilic addition	T14 steam	T14 hydrogen halide
T14 diol	T14 bromine water	T14 addition polymerisation
T14 polymer	T14 carbocation	T14 inductive effect

T14 卤化氢 lǔ huà qīng	T14 水蒸气 shuǐ zhēng qì	T14 亲电加成 qīn diàn jiā chéng
T14 加成聚合 jiā chéng jù hé	T14 溴水 xiù shuǐ	T14 二醇 èr chún
T14 诱导效应 yòu dǎo xiào yìng	T14 碳正离子 tàn zhèng lí zi	T14 聚合物 jù hé wù

T14	T14	T14
Markovnikov's rule	homolytic fission	heterolytic fission
T14	T14	T15
ketone	carboxylic acid	halogenoalkane
T15	T15	T15
free-radical substitution	electrophilic addition	alcohol

T14 异裂 yì liè	T14 均裂 jūn liè	T14 马氏规则 mǎ shì guī zé
T15 卤代烷 lǔ dài wán	T14 羧酸 suō suān	T14 酮 tóng
T15 醇 chún	T15 亲电加成 qīn diàn jiā chéng	T15 自由基取代 zì yóu jī qǔ dài

T15 primary	T15 secondary	T15 tertiary
T15 nucleophilic substitution	T15 nucleophile	T15 nitrile
T15 amine	T15 silver nitrate	T15 precipitate

T15 叔 shū	T15 仲 zhòng	T15 伯 bó
T15 腓 jīng	T15 亲核试剂 qīn hé shì jì	T15 亲核取代 qīn hé qǔ dài
T15 沉淀 chén diàn	T15 硝酸银 xiāo suān yín	T15 胺 àn

T15 elimination	T15 alkene	T15 transition state
T15 carbocation	T15 inductive effect	T15 bond energy
T15 reactivity	T16 alcohol	T16 electrophilic addition

T15 过渡态 guò dù tài	T15 烯烃 xī tīng	T15 消去 xiāo qù
T15 键能 jiàn néng	T15 诱导效应 yòu dǎo xiào yìng	T15 碳正离子 tàn zhèng lí zǐ
T16 亲电加成 qīn diàn jiā chéng	T16 醇 chún	T15 反应活性 fǎn yìng huó xìng

T16 alkene	T16 diol	T16 halogenoalkane
T16 reduction	T16 aldehyde	T16 ketone
T16 carboxylic acid	T16 hydrolysis	T16 ester

T16 卤代烷 lǔ dài wán	T16 二醇 èr chún	T16 烯烃 xī tīng
T16 酮 tóng	T16 醛 quán	T16 还原 huán yuán
T16 酯 zhǐ	T16 水解 shuǐ jiě	T16 羧酸 suō suān

T16 oxidation	T16 dehydration	T16 primary
T16 secondary	T16 tertiary	T16 distillation
T16 reflux	T16 tri-iodomethane	T16 acidity

T16 伯 bó	T16 脱水 tuō shuǐ	T16 氧化 yǎng huà
T16 蒸馏 zhēng liú	T16 叔 shū	T16 仲 zhòng
T16 酸性 suān xìng	T16 三碘甲烷 sān diǎn jiǎ wán	T16 回流 huí liú

T17 carbonyl compound	T17 carbonyl	T17 aldehyde
T17 ketone	T17 oxidation	T17 alcohol
T17 distillation	T17 reduction	T17 hydrogen cyanide

T17 醛 quán	T17 羰基 tāng jī	T17 羰基化合物 tāng jī huà hé wù
T17 醇 chún	T17 氧化 yǎng huà	T17 酮 tóng
T17 氰化氢 qíng huà qīng	T17 还原 huán yuán	T17 蒸馏 zhēng liú

T17	T17	T17
hydroxynitrile	nucleophilic addition	Fehling's reagent
T17	T17	T18
Tollens' reagent	tri-iodomethane	carboxylic acid
T18	T18	T18
oxidation	alcohol	aldehyde

T17 斐林试剂 fěi lín shì jì	T17 亲核加成 qīn hé jiā chéng	T17 羟基腈 qiǎng jī jīng
T18 羧酸 suō suān	T17 三碘甲烷 sān diǎn jiǎ wán	T17 托伦试剂 tuō lún shì jì
T18 醛 quán	T18 醇 chún	T18 氧化 yǎng huà

T18 reflux	T18 hydrolysis	T18 nitrile
T18 ester	T18 redox	T18 salt
T18 neutralisation	T18 carbonate	T18 esterification

T18 腈 jīng	T18 水解 shuǐ jiě	T18 回流 huí liú
T18 盐 yán	T18 氧化还原 yǎng huà huán yuán	T18 酯 zhǐ
T18 酯化 zhǐ huà	T18 碳酸盐 tàn suān yán	T18 中和 zhōng hé

T18 reduction	T18 condensation	T19 amine
T19 halogenoalkane	T19 nucleophilic substitution	T19 nitrile
T19 aldehyde	T19 ketone	T19 hydroxynitrile

T19 胺 àn	T18 缩合 suō hé	T18 还原 huán yuán
T19 腓 jīng	T19 亲核取代 qīn hé qǔ dài	T19 卤代烷 lǔ dài wán
T19 羟基腓 qiǎng jī jīng	T19 酮 tóng	T19 醛 quán

T19 hydrogen cyanide	T19 nucleophilic addition	T19 hydrolysis
T19 carboxylic acid	T19 reduction	T20 addition polymerisation
T20 monomer	T20 polymer	T20 repeat unit

T19 水解 shuǐ jiě	T19 亲核加成 qīn hé jiā chéng	T19 氰化氢 qíng huà qīng
T20 加成聚合 jiā chéng jù hé	T19 还原 huán yuán	T19 羧酸 suō suān
T20 重复单元 chóng fù dān yuán	T20 聚合物 jù hé wù	T20 单体 dān tǐ

T20 poly(ethene)	T20 poly(chloroethene)	T20 non-biodegradable
T20 combustion	T21 functional group	T21 alkene
T21 halogenoalkane	T21 alcohol	T21 aldehyde

T20 不可生物降解 bù kě shēng wù jiàng jiě	T20 聚氯乙烯 jù lǜ yǐ xī	T20 聚乙烯 jù yǐ xī
T21 烯烃 xī tīng	T21 官能团 guān néng tuán	T20 燃烧 rán shāo
T21 醛 quán	T21 醇 chún	T21 卤代烷 lǔ dài wán

T21 ketone	T21 carboxylic acid	T21 nitrile
T21 amine	T21 ester	T21 synthetic route
T21 reagent	T21 oxidation	T21 reduction

T21 腈 jīng	T21 羧酸 suō suān	T21 酮 tóng
T21 合成路线 hé chéng lù xiàn	T21 酯 zhǐ	T21 胺 àn
T21 还原 huán yuán	T21 氧化 yǎng huà	T21 试剂 shì jì

T21 by-product	T22 infrared spectroscopy	T22 functional group
T22 absorption	T22 wavenumber	T22 mass spectrometry
T22 mass-to-charge ratio	T22 isotope	T22 isotopic abundance

T22 官能团 guān néng tuán	T22 红外光谱 hóng wài guāng pǔ	T21 副产物 fù chǎn wù
T22 质谱 zhì pǔ	T22 波数 bō shù	T22 吸收 xī shōu
T22 同位素丰度 tóng wèi sù fēng dù	T22 同位素 tóng wèi sù	T22 质荷比 zhì hé bǐ

T22 relative atomic mass	T22 molecular ion	T22 molecular ion peak
T22 fragmentation	T22 fragment	T23 enthalpy change
T23 enthalpy change of atomisation	T23 lattice energy	T23 electron affinity

T22 分子离子峰 fēn zǐ lí zǐ fēng	T22 分子离子 fēn zǐ lí zǐ	T22 相对原子质量 xiāng duì yuán zǐ zhì liàng
T23 焓变 hán biàn	T22 碎片 suì piàn	T22 碎裂 suì liè
T23 电子亲和能 diàn zǐ qīn hé néng	T23 晶格能 jīng gé néng	T23 原子化焓变 yuán zǐ huà hán biàn

T23 Born–Haber cycle	T23 enthalpy change of hydration	T23 enthalpy change of solution
T23 entropy	T23 entropy change	T23 Gibbs free energy
T23 feasibility	T24 electrolysis	T24 electrolyte

T23 溶解焓变 róng jiě hán biàn	T23 水合焓变 shuǐ hé hán biàn	T23 玻恩哈伯循环 bō ēn hā bó xún huán
T23 吉布斯自由能 jí bù sī zì yóu néng	T23 熵变 shāng biàn	T23 熵 shāng
T24 电解质 diàn jiě zhì	T24 电解 diàn jiě	T23 可行性 kě xíng xìng

T24 electrode	T24 cathode	T24 anode
T24 Faraday constant	T24 Avogadro constant	T24 electrode potential
T24 standard electrode potential	T24 standard hydrogen electrode	T24 standard cell potential

T24 阳极 yáng jí	T24 阴极 yīn jí	T24 电极 diàn jí
T24 电极电势 diàn jí diàn shì	T24 阿伏伽德罗常量 ā fú gā dé luó cháng liàng	T24 法拉第常量 fǎ lā dì cháng liàng
T24 标准电池电势 biāo zhǔn diàn chí diàn shì	T24 标准氢电极 biāo zhǔn qīng diàn jí	T24 标准电极电势 biāo zhǔn diàn jí diàn shì

T24 oxidising agent	T24 reducing agent	T24 half-equation
T24 feasibility	T24 Nernst equation	T25 conjugate base
T25 conjugate acid	T25 conjugate acid–base pair	T25 acid dissociation constant

T24 半反应方程式 bàn fǎn yìng fāng chéng shì	T24 还原剂 huán yuán jì	T24 氧化剂 yǎng huà jì
T25 共轭碱 gòng è jiǎn	T24 能斯特方程 néng sī tè fāng chéng	T24 可行性 kě xíng xìng
T25 酸解离常数 suān jiě lí cháng shù	T25 共轭酸碱对 gòng è suān jiǎn duì	T25 共轭酸 gòng è suān

T25 ionic product of water	T25 strong acid	T25 strong alkali
T25 weak acid	T25 buffer solution	T25 solubility product
T25 common ion effect	T25 partition coefficient	T25 solute

T25 强碱 qiáng jiǎn	T25 强酸 qiáng suān	T25 水的离子积 shuǐ de lí zǐ jī
T25 溶度积 róng dù jī	T25 缓冲溶液 huǎn chōng róng yè	T25 弱酸 ruò suān
T25 溶质 róng zhì	T25 分配系数 fēn pèi xì shù	T25 同离子效应 tóng lí zǐ xiào yìng

T25	T25	T26
polarity	solvent	rate equation
T26	T26	T26
order of reaction	overall order of reaction	rate constant
T26	T26	T26
half-life	rate-determining step	intermediate

T26 速率方程 sù lǜ fāng chéng	T25 溶剂 róng jì	T25 极性 jí xìng
T26 速率常数 sù lǜ cháng shù	T26 总反应级数 zǒng fǎn yìng jí shù	T26 反应级数 fǎn yìng jí shù
T26 中间体 zhōng jiān tǐ	T26 决速步骤 jué sù bù zhòu	T26 半衰期 bàn shuāi qī

T26 initial rate	T26 catalyst	T26 heterogeneous catalyst
T26 adsorption	T26 desorption	T26 homogeneous catalyst
T27 thermal stability	T27 nitrate	T27 carbonate

T26 多相催化剂 duō xiāng cuī huà jì	T26 催化剂 cuī huà jì	T26 初始速率 chū shǐ sù lǜ
T26 均相催化剂 jūn xiāng cuī huà jì	T26 脱附 tuō fù	T26 吸附 xī fù
T27 碳酸盐 tàn suān yán	T27 硝酸盐 xiāo suān yán	T27 热稳定性 rè wěn dìng xìng

T27 cation	T27 ionic radius	T27 polarisation
T27 anion	T27 enthalpy change of solution	T27 lattice energy
T27 enthalpy change of hydration	T27 solubility	T27 hydroxide

T27 极化 jí huà	T27 离子半径 lí zi bàn jìng	T27 阳离子 yáng lí zi
T27 晶格能 jīng gé néng	T27 溶解焓变 róng jiě hán biàn	T27 阴离子 yīn lí zi
T27 氢氧化物 qīng yǎng huà wù	T27 溶解度 róng jiě dù	T27 水合焓变 shuǐ hé hán biàn

T27 sulfate	T28 transition element	T28 orbital
T28 oxidation state	T28 catalyst	T28 complex ion
T28 ligand	T28 dative covalent bond	T28 lone pair

T28 轨道 guǐ dào	T28 过渡元素 guò dù yuán sù	T27 硫酸盐 liú suān yán
T28 配离子 pèi lí zi	T28 催化剂 cuī huà jì	T28 氧化态 yǎng huà tài
T28 孤对电子 gū duì diàn zi	T28 配位键 pèi wèi jiàn	T28 配体 pèi tǐ

T28 monodentate	T28 bidentate	T28 polydentate
T28 complex	T28 linear	T28 square planar
T28 tetrahedral	T28 octahedral	T28 coordination number

T28 多齿 duō chǐ	T28 双齿 shuāng chǐ	T28 单齿 dān chǐ
T28 平面正方形 píng miàn zhèng fāng xíng	T28 直线形 zhí xiàn xíng	T28 配合物 pèi hé wù
T28 配位数 pèi wèi shù	T28 八面体形 bā miàn tǐ xíng	T28 四面体形 sì miàn tǐ xíng

T28 ligand exchange	T28 degenerate	T28 non-degenerate
T28 complementary colour	T28 geometrical isomerism	T28 cis
T28 trans	T28 optical isomerism	T28 stability constant

T28 非简并 fēi jiǎn bìng	T28 简并 jiǎn bìng	T28 配体交换 pèi tǐ jiāo huàn
T28 顺式 shùn shì	T28 几何异构 jǐ hé yì gòu	T28 互补色 hù bǔ sè
T28 稳定常数 wěn dìng cháng shù	T28 旋光异构 xuán guāng yì gòu	T28 反式 fǎn shì

T29 functional group	T29 amide	T29 aromatic
T29 benzene	T29 benzene ring	T29 electrophilic substitution
T29 addition–elimination	T29 hybridisation	T29 sigma bond

T29 芳香 fāng xiāng	T29 酰胺 xiān àn	T29 官能团 guān néng tuán
T29 亲电取代 qīn diàn qǔ dài	T29 苯环 běn huán	T29 苯 běn
T29 σ 键 σ jiàn	T29 杂化 zá huà	T29 加成消去 jiā chéng xiāo qù

T29 delocalised	T29 pi bond	T29 enthalpy change of hydrogenation
T29 enantiomers	T29 plane polarised light	T29 optically active
T29 racemic mixture	T29 chirality	T29 chiral centre

T29 氢化焓变 qīng huà hán biàn	T29 π 键 π jiàn	T29 离域 lí yù
T29 旋光活性 xuán guāng huó xìng	T29 平面偏振光 píng miàn piān zhèn guāng	T29 对映体 duì yìng tǐ
T29 手性中心 shǒu xìng zhōng xīn	T29 手性 shǒu xìng	T29 外消旋混合物 wài xiāo xuán hùn hé wù

T29 chiral catalyst	T30 arene	T30 benzene
T30 electrophilic substitution	T30 catalyst	T30 halogenoarene
T30 nitration	T30 Friedel–Crafts alkylation	T30 Friedel–Crafts acylation

T30 苯 bēn	T30 芳烃 fāng tīng	T29 手性催化剂 shǒu xìng cuī huà jì
T30 卤代芳烃 lǔ dài fāng tīng	T30 催化剂 cuī huà jì	T30 亲电取代 qīn diàn qǔ dài
T30 傅克酰基化 fù kè xiān jī huà	T30 傅克烷基化 fù kè wán jī huà	T30 硝化 xiāo huà

T30 benzoic acid	T30 hydrogenation	T30 side-chain
T30 benzene ring	T30 delocalisation	T30 directing effect
T31 halogenoarene	T31 arene	T31 catalyst

T30 侧链 cè liàn	T30 氢化 qīng huà	T30 苯甲酸 běn jiǎ suān
T30 定位效应 dìng wèi xiào yìng	T30 离域 lí yù	T30 苯环 běn huán
T31 催化剂 cuī huà jì	T31 芳烃 fāng tīng	T31 卤代芳烃 lǔ dài fāng tīng

T31 halogenoalkane	T31 nucleophilic substitution	T31 lone pair
T31 delocalised	T31 nucleophile	T32 alcohol
T32 acyl chloride	T32 ester	T32 phenol

T31 孤对电子 gū duì diàn zi	T31 亲核取代 qīn hé qǔ dài	T31 卤代烷 lǔ dài wán
T32 醇 chún	T31 亲核试剂 qīn hé shì jì	T31 离域 lí yù
T32 苯酚 běn fēn	T32 酯 zhǐ	T32 酰氯 xiān lǔ

T32 benzene	T32 phenylamine	T32 diazonium salt
T32 azo compound	T32 nitration	T32 bromination
T32 acidity	T32 delocalised	T33 alkylbenzene

T32 重氮盐 zhòng dàn yán	T32 苯胺 běn àn	T32 苯 běn
T32 溴化 xiù huà	T32 硝化 xiāo huà	T32 偶氮化合物 ǒu dàn huà hé wù
T33 烷基苯 wán jī běn	T32 离域 lí yù	T32 酸性 suān xìng

T33 benzoic acid	T33 acyl chloride	T33 carboxylic acid
T33 acidity	T33 phenol	T33 alcohol
T33 electron-withdrawing	T33 inductive effect	T33 ester

T33 羧酸 suō suān	T33 酰氯 xiān lǜ	T33 苯甲酸 běn jiǎ suān
T33 醇 chún	T33 苯酚 běn fēn	T33 酸性 suān xìng
T33 酯 zhǐ	T33 诱导效应 yòu dǎo xiào yìng	T33 吸电子 xī diàn zǐ

T33 ammonia	T33 amide	T33 amine
T33 addition–elimination	T33 hydrolysis	T34 amine
T34 halogenoalkane	T34 reduction	T34 amide

T33 胺 àn	T33 酰胺 xiān àn	T33 氨 ān
T34 胺 àn	T33 水解 shuǐ jiě	T33 加成消去 jiā chéng xiāo qù
T34 酰胺 xiān àn	T34 还原 huán yuán	T34 卤代烷 lǔ dài wán

T34 nitrile	T34 ammonia	T34 condensation
T34 acyl chloride	T34 basicity	T34 phenylamine
T34 delocalised	T34 diazonium salt	T34 phenol

T34 缩合 suō hé	T34 氨 ān	T34 腈 jīng
T34 苯胺 běn àn	T34 碱性 jiǎn xìng	T34 酰氯 xiān lǜ
T34 苯酚 běn fēn	T34 重氮盐 zhòng dàn yán	T34 离域 lí yù

T34 azo compound	T34 dye	T34 amino acid
T34 zwitterion	T34 isoelectric point	T34 peptide bond
T34 dipeptide	T34 electrophoresis	T35 condensation polymerisation

T34 氨基酸 ān jī suān	T34 染料 rǎn liào	T34 偶氮化合物 ǒu dàn huà hé wù
T34 肽键 tài jiàn	T34 等电点 děng diàn diǎn	T34 两性离子 liǎng xìng lí zi
T35 缩合聚合 suō hé jù hé	T34 电泳 diàn yǐng	T34 二肽 èr tài

T35 polyester	T35 diol	T35 dicarboxylic acid
T35 polyamide	T35 diamine	T35 amino acid
T35 repeat unit	T35 monomer	T35 addition polymerisation

T35 二羧酸 èr suō suān	T35 二醇 èr chún	T35 聚酯 jù zhǐ
T35 氨基酸 ān jī suān	T35 二胺 èr àn	T35 聚酰胺 jù xiān àn
T35 加成聚合 jiā chéng jù hé	T35 单体 dān tǐ	T35 重复单元 chóng fù dān yuán

T35 poly(alkene)	T35 biodegradable	T35 hydrolysis
T36 functional group	T36 acyl chloride	T36 phenol
T36 arene	T36 electrophilic substitution	T36 reduction

T35 水解 shuǐ jiě	T35 可生物降解 kě shēng wù jiàng jiě	T35 聚烯烃 jù xī tīng
T36 苯酚 běn fēn	T36 酰氯 xiān lǜ	T36 官能团 guān néng tuán
T36 还原 huán yuán	T36 亲电取代 qīn diàn qǔ dài	T36 芳烃 fāng tīng

T36 oxidation	T36 carboxylic acid	T36 ester
T36 amine	T36 amide	T36 nitrile
T36 synthetic route	T36 reagent	T36 addition–elimination

T36 酯 zhǐ	T36 羧酸 suō suān	T36 氧化 yǎng huà
T36 腈 jīng	T36 酰胺 xiān àn	T36 胺 àn
T36 加成消去 jiā chéng xiāo qù	T36 试剂 shì jì	T36 合成路线 hé chéng lù xiàn

T36 by-product	T37 chromatography	T37 thin-layer chromatography
T37 stationary phase	T37 mobile phase	T37 baseline
T37 solvent front	T37 gas/liquid chromatography	T37 retention time

T37 薄层色谱 báo céng sè pǔ	T37 色谱 sè pǔ	T36 副产物 fù chǎn wù
T37 基线 jī xiàn	T37 流动相 liú dòng xiāng	T37 固定相 gù dìng xiāng
T37 保留时间 bǎo liú shí jiān	T37 气液色谱 qì yè sè pǔ	T37 溶剂前沿 róng jì qián yán

T37 NMR	T37 chemical environment	T37 proton
T37 chemical shift	T37 splitting	T37 singlet
T37 doublet	T37 triplet	T37 quartet

T37 质子 zhì zǐ	T37 化学环境 huà xué huán jìng	T37 核磁共振 hé cí gòng zhèn
T37 单峰 dān fēng	T37 裂分 liè fēn	T37 化学位移 huà xué wèi yí
T37 四峰 sì fēng	T37 三峰 sān fēng	T37 双峰 shuāng fēng

T37

multiplet

T37

tetramethylsilane

T37

deuterated solvent

T37 氘代溶剂 dāo dài róng jì	T37 四甲基硅烷 sì jiǎ jī guī wán	T37 多重峰 duō zhòng fēng