

# AP Chemistry

Glossary · · every term in the course, A–Z

| English                                                                                                                                | Pinyin                    |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| absolute temperature<br><i>/ˈæbsəlu:t ˈtemprɪtʃə/</i>                                                                                  | jué duì wēn dù            |
|  absorbance<br><i>/əbˈsɔ:bəns/</i>                    | xī guāng dù               |
|  acid<br><i>/ˈæsid/</i>                               | suān                      |
|  acid-base indicator<br><i>/ˈæsid beɪs ˈɪndɪkətə/</i> | suān jiǎn zhǐ shì jì      |
|  activation energy<br><i>/ˌæktɪˈveɪʃn ˈenədʒi/</i>    | huó huà néng              |
| active site<br><i>/ˈæktɪv saɪt/</i>                                                                                                    | huó xìng wèi diǎn         |
| adsorb                                                                                                                                 | xī fù                     |
|  alloy<br><i>/ˈælɔɪ/</i>                              | hé jīn                    |
| alternative pathway                                                                                                                    | tì dài lù jìng            |
|  amorphous<br><i>/əˈmɔ:fəs/</i>                     | fēi jīng tǐ               |
| anion<br><i>/ˈænaɪən/</i>                                                                                                              | yīn lí zì                 |
|  anode<br><i>/ˈænəʊd/</i>                           | yáng jí                   |
| aqueous<br><i>/ˈeɪkwɪəs/</i>                                                                                                           | shuǐ róng yè de           |
| Arrhenius equation                                                                                                                     | ā lún ní wū sī fāng chéng |
| atomic mass                                                                                                                            | yuán zì zhì liàng         |
| atomic number<br><i>/əˈtɒmɪk ˈnʌmbə/</i>                                                                                               | yuán zì xù shù            |
|  atomic radius<br><i>/əˈtɒmɪk ˈreɪdiəs/</i>         | yuán zì bàn jìng          |
| atoms<br><i>/ˈætəmz/</i>                                                                                                               | yuán zì                   |
| Aufbau principle                                                                                                                       | gòu zào yuán lǐ           |

| English                                                                                                                                       |   | Pinyin                     |
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|  autoionization<br><i>/ˌɔːtəʊ,aiənəɪˈzeɪʃn/</i>              |   | zì ǒu diàn lí              |
| autoionization of water                                                                                                                       |   | shuǐ de zì ǒu diàn lí      |
|  average atomic mass<br><i>/'ævrɪdʒ ə'tɒmɪk mæs/</i>         |   | píng jūn yuán zì zhì liàng |
|  average kinetic energy<br><i>/'ævrɪdʒ kɪ'netɪk 'enədʒi/</i> |   | píng jūn dòng néng         |
| average rate                                                                                                                                  |   | píng jūn sù lǜ             |
|  Avogadro's number<br><i>/ˌævə'gædrəʊz 'nʌmbə/</i>           |   | ā fú gā dé luó cháng shù   |
| balanced equation                                                                                                                             |   | pèi píng fāng chéng shì    |
|  base<br><i>/beɪs/</i>                                       |   | jiǎn                       |
|  Beer-Lambert law                                            | - | bǐ ěr - lǎng bó dìng lǜ    |
|  Beer-Lambert law<br><i>/biə 'læmbət lɔː/</i>                | - | bǐ ěr - lǎng bó dìng lǜ    |
| Bimolecular                                                                                                                                   |   | shuāng fèn zǐ              |
| binary acids                                                                                                                                  |   | wú yǎng suān               |
|  binding energy<br><i>/'baɪndɪŋ 'enədʒi/</i>               |   | jié hé néng                |
| boiling point<br><i>/'bɔɪlɪŋ pɔɪnt/</i>                                                                                                       |   | fèi diǎn                   |
|  bond energy<br><i>/bɒnd 'enədʒi/</i>                      |   | jiàn néng                  |
|  bond enthalpy<br><i>/bɒnd en'θælpi/</i>                   |   | jiàn hán                   |
|  bond length<br><i>/bɒnd leŋθ/</i>                         |   | jiàn zhǎng                 |
| bond order                                                                                                                                    |   | jiàn jí                    |
| bonds<br><i>/bɒndz/</i>                                                                                                                       |   | huà xué jiàn               |
| brittleness                                                                                                                                   |   | cùi xìng                   |
| Bronsted-Lowry                                                                                                                                | - | bù lǎng sī tè - láo lǐ     |

| English                                                                                                                                    | Pinyin                         |
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|  buffer<br><i>/ˈbʌfə/</i>                                 | huǎn chōng róng yè             |
|  buffer capacity<br><i>/ˈbʌfə kəˈpæsɪti/</i>              | huǎn chōng róng liàng          |
|  calorimetry<br><i>/ˌkæləˈrɪmətri/</i>                    | liàng rè fǎ                    |
|  catalyst<br><i>/ˈkætəlist/</i>                           | cū huà jì                      |
| — cathode<br><i>/ˈkæθəʊd/</i>                                                                                                              | yīn jí                         |
| cation<br><i>/ˈkætaiən/</i>                                                                                                                | yáng lí zi                     |
|  cell potential<br><i>/sel pəˈtenʃl/</i>                  | diàn chí diàn shì              |
| charge<br><i>/tʃɑːdʒ/</i>                                                                                                                  | diàn hè                        |
|  chemical bond<br><i>/ˈkemɪkl bɒnd/</i>                   | huà xué jiàn                   |
|  chemical change<br><i>/ˈkemɪkl tʃeɪndʒ/</i>              | huà xué biàn huà               |
|  chemical equilibrium<br><i>/ˈkemɪkl ˌiːkwɪˈlɪbrɪəm/</i> | huà xué píng héng              |
| chemical formula<br><i>/ˈkemɪkl ˈfɔːmjʊlə/</i>                                                                                             | huà xué shì                    |
|  chemical reaction<br><i>/ˈkemɪkl rɪˈækʃn/</i>          | huà xué fǎn yìng               |
|  Chromatography<br><i>/krəʊməˈtɒɡrəfi/</i>              | sè pǔ fǎ                       |
|  Collision theory<br><i>/kəˈlɪʒn ˈθɪəri/</i>            | pèng zhuàng lǐ lùn             |
| combined gas law                                                                                                                           | zǔ hé qì tǐ dìng lǚ            |
|  common-ion effect<br><i>/ˈkɒmən ˈaɪən ɪˈfekt/</i>      | tóng lí zi xiào yìng           |
| complete ionic equation                                                                                                                    | wán zhěng lí zi fāng chéng shì |
| compound<br><i>/ˈkɒmpaʊnd/</i>                                                                                                             | huà hé wù                      |
| concentration<br><i>/ˌkɒnsənˈtreɪʃn/</i>                                                                                                   | nóng dù                        |
| concentration cell                                                                                                                         | nóng chà diàn chí              |

| English                                                                                                   |   | Pinyin                    |
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| condenses                                                                                                 |   | lěng níng                 |
| <b>+</b> conjugate acid                                                                                   |   | gòng è suān               |
| <i>/ˈkɒndʒuːgeɪt ˈæsɪd/</i>                                                                               |   |                           |
| conjugate acid-base pair                                                                                  |   | gòng è suān jiǎn duì      |
| <b>—</b> conjugate base                                                                                   |   | gòng è jiǎn               |
| <i>/ˈkɒndʒuːgeɪt beɪs/</i>                                                                                |   |                           |
| conserved                                                                                                 |   | shǒu héng                 |
| <i>/kənˈsɜːvd/</i>                                                                                        |   |                           |
| Coulomb's law                                                                                             |   | kù lún dìng lǚ            |
| <i>/ˈkuːlɒmz lɔː/</i>                                                                                     |   |                           |
|  Coulombic attraction    |   | kù lún xī yǐn             |
| <i>/kuːˈlɒmbɪk əˈtrækʃn/</i>                                                                              |   |                           |
| counting unit                                                                                             |   | jì shù dān wèi            |
| coupling                                                                                                  |   | ǒu hé                     |
|  covalent bond           |   | gòng jià jiàn             |
| <i>/ˈkəʊvələnt bɒnd/</i>                                                                                  |   |                           |
| Covalent-network                                                                                          |   | gòng jià wǎng zhuàng      |
|  crystal lattice        |   | jīng gé                   |
| <i>/ˈkrɪstl ˈlætɪs/</i>                                                                                   |   |                           |
|  crystalline           |   | jīng tǐ                   |
| <i>/ˈkrɪstəlɪn/</i>                                                                                       |   |                           |
| Dalton's law                                                                                              |   | dào ěr dùn fēn yā dìng lǚ |
|  decomposition         |   | fēn jiě fǎn yìng          |
| <i>/ˌdiːkɒmpəˈzɪʃn/</i>                                                                                   |   |                           |
|  delocalized           |   | lí yù                     |
| <i>/dɪˈləkəlaɪzd/</i>                                                                                     |   |                           |
|  delocalized electrons |   | lí yù diàn zì             |
| <i>/dɪˈləkəlaɪzd ɪˈlektroʊnz/</i>                                                                         |   |                           |
| dilution                                                                                                  |   | xī shì                    |
| dipole                                                                                                    |   | ǒu jí                     |
| <i>/ˈdaɪpəʊl/</i>                                                                                         |   |                           |
| Dipole-dipole                                                                                             | - | ǒu jí - ǒu jí             |
|  Dipole-dipole         | - | ǒu jí - ǒu jí             |
| <i>/ˈdaɪpəʊl ˈdaɪpəʊl/</i>                                                                                |   |                           |

| English                                                                                                                                               | Pinyin               |
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|  Distillation<br><i>/distɪˈleɪʃn/</i>                                | zhēng liú            |
| double bond<br><i>/ˈdʌbl bɒnd/</i>                                                                                                                    | shuāng jiàn          |
|  ductile<br><i>/ˈdʌktaɪl/</i>                                        | kě yán zhǎn de       |
| dynamic<br><i>/daɪˈnæmɪk/</i>                                                                                                                         | dòng tài de          |
| effective collision<br><i>/ɪˈfektɪv kəˈlɪʒn/</i>                                                                                                      | yǒu xiào pèng zhuàng |
| effective nuclear charge                                                                                                                              | yǒu xiào hé diàn hè  |
| elastic<br><i>/ɪˈlæstɪk/</i>                                                                                                                          | tán xìng             |
| electrically neutral                                                                                                                                  | diàn zhōng xìng      |
|  electrolysis<br><i>/ɪlektroˈlæsis/</i>                              | diàn jiě             |
| electrolytic                                                                                                                                          | diàn jiě chí         |
|  electrolytic cell<br><i>/ɪˌlektroˈlɪtɪk sel/</i>                    | diàn jiě chí         |
| electromagnetic radiation                                                                                                                             | diàn cí fú shè       |
|  electromagnetic spectrum<br><i>/ɪˌlektroʊmægˈnetɪk ˈspektrəm/</i> | diàn cí bō pǔ        |
|  electron configuration<br><i>/ɪˈlektroʊn kənˌfɪɡjəˈreɪʃn/</i>     | diàn zì pái bù       |
| electron domains                                                                                                                                      | diàn zì yù           |
| electron sharing                                                                                                                                      | diàn zì gòng xiǎng   |
| electron transfer<br><i>/ɪˈlektroʊn ˈtrænsfɜː/</i>                                                                                                    | diàn zì zhuǎn yí     |
| electronegative<br><i>/ɪˈlektroʊnɡətɪv/</i>                                                                                                           | diàn fù              |
|  electronegativity<br><i>/ɪˌlektroʊnɡəˈtɪvɪti/</i>                 | diàn fù xìng         |
| electronic                                                                                                                                            | diàn zì yuè qiān     |

| English                                                                                                                                 | Pinyin                |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|  electrons<br><i>/ɪˈlektɹɒnz/</i>                      | diàn zi               |
| element<br><i>/ˈelɪmənt/</i>                                                                                                            | yuán sù               |
| elementary reaction                                                                                                                     | jī yuán fǎn yìng      |
|  elementary steps<br><i>/ˌelɪˈmentəri steps/</i>       | jī yuán bù zhòu       |
| $\div$ empirical formula<br><i>/emˈpɪrɪkl ˈfɔːmjʊlə/</i>                                                                                | shí yàn shì           |
| empirical formula mass                                                                                                                  | shí yàn shì zhì liàng |
|  endothermic<br><i>/ˌendəʊˈθɜːmɪk/</i>                 | xī rè                 |
| energy diagram                                                                                                                          | néng liàng tú         |
| energy levels<br><i>/ˈenədʒi ˈlevlz/</i>                                                                                                | néng jí               |
|  energy profile<br><i>/ˈenədʒi ˈprəʊfaɪl/</i>          | néng liàng tú         |
| enthalpy change<br><i>/enˈθælpɪ tʃeɪndʒ/</i>                                                                                            | hán biàn              |
|  enthalpy of reaction<br><i>/enˈθælpɪ ɒv rɪˈækʃn/</i> | fǎn yìng hán          |
|  entropy<br><i>/ˈentrəpi/</i>                        | shāng                 |
| entropy change<br><i>/ˈentrəpi tʃeɪndʒ/</i>                                                                                             | shāng biàn            |
| Enzyme<br><i>/ˈenzaim/</i>                                                                                                              | méi                   |
|  equilibrium<br><i>/ˌiːkwɪˈlɪbrɪəm/</i>              | píng héng             |
| = equilibrium constant<br><i>/ˌiːkwɪˈlɪbrɪəm ˈkɒnstənt/</i>                                                                             | píng héng cháng shù   |
|  equivalence point<br><i>/ɪˈkwɪvələns pɔɪnt/</i>     | děng dāng diǎn        |
| evidence<br><i>/ˈeɪdəns/</i>                                                                                                            | zhèng jù              |
| excess reactant                                                                                                                         | guò liàng fǎn yìng wù |
| exchange rate<br><i>/eksˈtʃeɪndʒ reɪt/</i>                                                                                              | huàn suàn guān xì     |

| English                                                                                                                                        | Pinyin               |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| excited state<br><i>/ek'saɪtɪd steɪt/</i>                                                                                                      | jī fā tài            |
|  exothermic<br><i>/egzə'ðɜ:mɪk/</i>                           | fàng rè              |
| expanded octet<br><i>/ek'spændɪd ɒk'tet/</i>                                                                                                   | kuò zhǎn bā yú tǐ    |
|  Faraday's law<br><i>/'færədeɪz lɔ:/</i>                      | fǎ lā dì dīng lǜ     |
|  formal charge<br><i>/'fɔ:ml tʃɑ:dʒ/</i>                      | xíng shì diàn hè     |
| free energy of dissolution                                                                                                                     | róng jiě zì yóu néng |
|  free valence electrons<br><i>/'fri: 'veɪləns ɪ'lektɹɒnz/</i> | zì yóu jià diàn zǐ   |
| frequency<br><i>/'fri:kwənsi/</i>                                                                                                              | pín lǚ               |
| galvanic                                                                                                                                       | yuán diàn chí        |
|  galvanic (voltaic) cell<br><i>/gæl'vænɪk sel/</i>            | yuán diàn chí        |
| gas constant<br><i>/gæs 'kɒnstənt/</i>                                                                                                         | qì tǐ cháng shù      |
| gas formation                                                                                                                                  | qì tǐ shēng chéng    |
| Gases<br><i>/'gæsiːz/</i>                                                                                                                      | qì tǐ                |
|  geometric isomers<br><i>/,dʒi:əʊ'metɹɪk 'aɪsəməz/</i>      | jǐ hé yì gòu tǐ      |
|  Gibbs free energy<br><i>/gɪbz fri: 'enədʒi/</i>            | jí bù sī zì yóu néng |
| ground state<br><i>/graʊnd steɪt/</i>                                                                                                          | jī tài               |
| half-equivalence point                                                                                                                         | bàn děng dāng diǎn   |
|  half-life<br><i>/hɑ:f laɪf/</i>                            | bàn shuāi qī         |
| half-reactions                                                                                                                                 | bàn fǎn yìng         |
|  heat<br><i>/hi:t/</i>                                      | rè liàng             |
|  heat of fusion<br><i>/hi:t ɒv 'fju:ʒn/</i>                 | róng huà rè          |

| English                                                                                                                                                   |   | Pinyin                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------|
|  heat of vaporization<br><i>/hi:t vɒ ˌveɪpəraɪ'zeɪʃn/</i>                |   | qì huà rè                                |
| heating curve<br><i>/'hi:tɪŋ kɜ:v/</i>                                                                                                                    |   | jiā rè qū xiàn                           |
|  Henderson-Hasselbalch equation<br><i>/'hendəsn 'hæsilbæltʃɪ'kweɪʒn/</i> | - | hēng dé sēn - hā sāi ěr bā hè fāng chéng |
|  Hess's law<br><i>/'hesɪz lɔ:/</i>                                       |   | hè sī dìng lǚ                            |
| Heterogeneous catalyst<br><i>/ˌhetrə'dʒi:nɪəs 'kætəlist/</i>                                                                                              |   | fēi jūn xiāng cuī huà jì                 |
| heterogeneous mixture                                                                                                                                     |   | fēi jūn xiāng hùn hé wù                  |
| Homogeneous catalyst<br><i>/hə'məʊdʒɪnɪəs 'kætəlist/</i>                                                                                                  |   | jūn xiāng cuī huà jì                     |
| homogeneous mixture                                                                                                                                       |   | jūn xiāng hùn hé wù                      |
| Hund's rule                                                                                                                                               |   | hóng tè guī zé                           |
|  hybridization<br><i>/ˌhaɪbrɪdaɪ'zeɪʃn/</i>                              |   | zá huà                                   |
|  Hydrogen bonding<br><i>/'haɪdrədʒn 'bɒndɪŋ/</i>                        |   | qīng jiàn                                |
|  hydronium ion<br><i>/haɪ'drəʊnɪəm 'aɪən/</i>                          |   | shuǐ hé qīng lí zǐ                       |
| ideal gas<br><i>/aɪ'diəl gæs/</i>                                                                                                                         |   | lǐ xiǎng qì tǐ                           |
|  ideal gas law<br><i>/aɪ'diəl gæs lɔ:/</i>                             |   | lǐ xiǎng qì tǐ dìng lǚ                   |
| incomplete octet                                                                                                                                          |   | bù wán quán bā yú tǐ                     |
| indicator<br><i>/'ɪndɪkətə/</i>                                                                                                                           |   | zhǐ shì jì                               |
| Infrared<br><i>/ˌɪnfɹə'red/</i>                                                                                                                           |   | hóng wài                                 |
| instantaneous rate                                                                                                                                        |   | shùn shí sù lǚ                           |
| integrated rate law                                                                                                                                       |   | jī fēn sù lǚ fāng chéng                  |
|  intermediate<br><i>/ˌɪntə'mi:diət/</i>                                |   | zhōng jiān tǐ                            |

| English                                                                                                                                     | Pinyin                  |
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|  intermolecular forces<br><i>/ˌɪntəməˈlekjələ ˈfɔːsɪz/</i> | fēn zǐ jiàn zuò yòng lì |
| interstitial alloy                                                                                                                          | jiàn xì hé jīn          |
| intramolecular                                                                                                                              | fēn zǐ nèi              |
| ion<br><i>/ˈaɪən/</i>                                                                                                                       | lí zi                   |
| $\Sigma$ ion-product constant of water<br><i>/ˈaɪən ˈprɒdʌkt ˈkɒnstənt ɒv ˈwɔːtə/</i>                                                       | shuǐ de lí zi jī        |
| Ionic                                                                                                                                       | lí zi xíng              |
|  ionic bond<br><i>/aɪˈbɒnɪk bɒnd/</i>                      | lí zi jiàn              |
| $\pm$ ionic compound<br><i>/aɪˈbɒnɪk ˈkɒmpaʊnd/</i>                                                                                         | lí zi huà hé wù         |
|  ionic solid<br><i>/aɪˈbɒnɪk ˈsɒlɪd/</i>                   | lí zi gù tǐ             |
| $\rightarrow$ ionization energy<br><i>/ˌaɪənəɪˈzeɪʃn ˈenədʒi/</i>                                                                           | diàn lí néng            |
| ionize                                                                                                                                      | diàn lí                 |
|  Ion–dipole<br><i>/ˈaɪən ˈdaɪpəʊl/</i>                   | - lí zi ǒu jí           |
|  isotope<br><i>/ˈaɪsətəʊp/</i>                           | tóng wèi sù             |
|  kelvin<br><i>/ˈkelvɪn/</i>                              | kāi ěr wén              |
| kinetic control                                                                                                                             | dòng lì xué kòng zhì    |
| $\leftrightarrow$ kinetic energy<br><i>/kɪˈnetɪk ˈenədʒi/</i>                                                                               | dòng néng               |
| $\rightleftharpoons$ kinetic molecular theory<br><i>/kɪˈnetɪk məˈlekjələ ˈθɪəri/</i>                                                        | fēn zǐ yùn dòng lùn     |
|  Kinetics<br><i>/kɪˈnetɪks/</i>                          | dòng lì xué             |
|  lattice<br><i>/ˈlætɪs/</i>                              | jīng gé                 |
|  lattice energy<br><i>/ˈlætɪs ˈenədʒi/</i>               | jīng gé néng            |

| English                                                                                                                                                                                                         | Pinyin                                          |
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|  Le Chatelier's principle<br>/lə 'tʃetliəz 'prɪnsɪpl/                                                                          | lěi xià tè liè yuán lǐ                          |
|  Lewis diagram<br>/'luːɪs 'daɪəgræm/<br>like dissolves like                                                                    | lù yì sī jié gòu shì<br>xiāng sì xiāng róng     |
|  limiting reactant<br>/'lɪmɪtɪŋ rɪ'æktənt/<br>Liquids                                                                          | xiàn liàng fǎn yìng wù<br>yè tǐ                 |
| London dispersion<br>/'lʌndn dɪ'spɜːʃn/                                                                                                                                                                         | lún dūn sè sàn lì                               |
|  London dispersion forces<br>/'lʌndn dɪ'spɜːʃn 'fɔːsɪz/<br>lone pair<br>/ləʊn peə/<br>luster                                   | lún dūn sè sàn lì<br>gū duì diàn zi<br>guāng zé |
|  Macroscopic<br>/ˌmækrə'skɒpɪk/<br>malleability<br>/ˌmælə'bɪlɪti/                                                              | hóng guān<br>yán zhǎn xìng                      |
|  malleable<br>/'mæləbl/<br>mass number<br>/mæs 'nʌmbə/                                                                       | kě yán zhǎn<br>zhì liàng shù                    |
| % mass percent<br>/mæs pə'sent/                                                                                                                                                                                 | zhì liàng fēn shù                               |
|  mass spectrometer<br>/mæs spek'trɒmɪtə/                                                                                     | zhì pǔ yí                                       |
|  mass spectrum<br>/mæs 'spektrəm/<br>mass-to-charge ratio<br>/mæs tə tʃɑːdʒ 'reɪʃiəʊ/<br>Maxwell-Boltzmann dis-<br>tribution | zhì pǔ tú<br>zhì hé bǐ                          |
| Metallic                                                                                                                                                                                                        | mài kè sī wéi - bō ěr zī màn<br>fēn bù          |
|  metallic bond<br>/mə'tælɪk bɒnd/                                                                                            | jīn shǔ xíng<br>jīn shǔ jiàn                    |

| English                                                                                                                                   | Pinyin                    |
|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| metals<br><i>/ˈmetlz/</i>                                                                                                                 | jīn shǔ                   |
| method of initial rates                                                                                                                   | chū shǐ sù lǚ fǎ          |
| microstates                                                                                                                               | wēi guān zhuàng tài       |
|  mixture<br><i>/ˈmɪkstʃə/</i>                            | hùn hé wù                 |
| mobile phase<br><i>/ˈməʊbaɪl feɪz/</i>                                                                                                    | liú dòng xiāng            |
| molar absorptivity                                                                                                                        | mó ěr xī guāng xī shù     |
|  molar mass<br><i>/ˈməʊlə mæs/</i>                       | mó ěr zhì liàng           |
|  molar solubility<br><i>/ˈməʊlə ˌsɒljʊːˈbɪlɪti/</i>      | mó ěr róng jiě dù         |
|  molarity<br><i>/məʊˈlærɪti/</i>                         | mó ěr nóng dù             |
|  mole<br><i>/məʊl/</i>                                   | mó ěr                     |
| mole fraction<br><i>/məʊl ˈfrækʃn/</i>                                                                                                    | mó ěr fēn shù             |
|  mole ratio<br><i>/məʊl ˈreɪʃiəʊ/</i>                   | mó ěr bǐ                  |
| Molecular                                                                                                                                 | fēn zǐ xíng               |
| molecular equation                                                                                                                        | fēn zǐ fāng chéng shì     |
|  molecular formula<br><i>/məˈlekjʊlə ˈfɔːmjʊlə/</i>    | fēn zǐ shì                |
| molecular polarity                                                                                                                        | fēn zǐ jí xìng            |
| molecularity                                                                                                                              | fēn zǐ shù                |
| multistep reaction                                                                                                                        | duō bù fǎn yìng           |
|  Nernst equation<br><i>/nɜːnst ɪ ˈkweɪzn/</i>          | néng sī tè fāng chéng     |
|  net ionic equation<br><i>/net aɪˈbɒnɪk ɪ ˈkweɪzn/</i> | jìng lí zǐ fāng chéng shì |
|  neutral<br><i>/ˈnjuːtrəl/</i>                         | zhōng xìng                |

| English                                                                                                                       | Pinyin               |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------|
| neutral molecules                                                                                                             | zhōng xìng fèn zǐ    |
|  neutralization<br>/ˈnjuːtrəlaɪˈzeɪʃn/       | zhōng hé             |
| neutrons<br>/ˈnjuːtrɒnz/                                                                                                      | zhōng zi             |
| nonmetals                                                                                                                     | fēi jīn shǔ          |
| Nonpolar                                                                                                                      | fēi jí xìng          |
| nonpolar covalent                                                                                                             | fēi jí xìng gòng jià |
|  nucleus<br>/ˈnjuːkliəs/                     | yuán zǐ hé           |
| observable species                                                                                                            | kě guān cè wù zhǒng  |
|  octet<br>/ɒkˈtɛt/                           | bā yú tǐ             |
| octet rule                                                                                                                    | bā yú guī zé         |
| orbital<br>/ˈɔːbɪtl/                                                                                                          | guǐ dào              |
|  orders<br>/ˈɔːdəz/                         | fǎn yìng jí shù      |
| orientation<br>/ˌɔːriənˈteɪʃn/                                                                                                | qǔ xiàng             |
| overall order<br>/ˌəʊvəˈrɔːl ˈɔːdə/                                                                                           | zǒng jí shù          |
|  Oxidation<br>/ˌɒksɪˈdeɪʃn/                | yǎng huà             |
| oxidation number<br>/ˌɒksɪˈdeɪʃn ˈnʌmbə/                                                                                      | yǎng huà shù         |
| oxidized                                                                                                                      | bèi yǎng huà         |
|  oxidizing agent<br>/ˈɒksɪdaɪzɪŋ ˈeɪdʒənt/ | yǎng huà jì          |
| oxyacids                                                                                                                      | hán yǎng suān        |
| partial pressure<br>/ˈpɑːʃl ˈpreʃə/                                                                                           | fēn yā               |
| • Particulate<br>/pəˈtɪkjələɪt/                                                                                               | wēi lì               |

| English                                                                                                                                                |       | Pinyin                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------|
| particulate diagram                                                                                                                                    |       | wēi lì tú                    |
| path length                                                                                                                                            |       | guāng chéng                  |
| Pauli exclusion principle                                                                                                                              |       | pào lì bù xiāng róng yuán lǐ |
|  percent composition<br><i>/pə'sent ,kɒmpə'zɪʃn/</i>                  |       | bǎi fēn zǔ chéng             |
| percent yield                                                                                                                                          |       | chǎn lǚ                      |
| periodic trends                                                                                                                                        |       | zhōu qī xìng biàn huà qū shì |
|  pH<br><i>/pi: eɪtʃ/</i>                                              | pH    | pH zhí                       |
|  phase change<br><i>/feɪz tʃeɪndʒ/</i>                                |       | xiāng biàn                   |
| photoelectric effect<br><i>/ˌfəʊtəʊ'lektrɪk ɪ'fekt/</i>                                                                                                |       | guāng diàn xiào yìng         |
|  photoelectron spectroscopy<br><i>/ˌfəʊtəʊ'lektrɒn spek'trɒskəpi/</i> |       | guāng diàn zì néng pǔ        |
|  photons<br><i>/'fəʊtɒnz/</i>                                         |       | guāng zì                     |
|  physical change<br><i>/'fɪzɪkl tʃeɪndʒ/</i>                        |       | wù lǐ biàn huà               |
| = pi bond<br><i>/paɪ bɒnd/</i>                                                                                                                         | $\pi$ | $\pi$ jiàn                   |
| # Planck's constant<br><i>/plæŋks 'kɒnstənt/</i>                                                                                                       |       | pǔ lǎng kè cháng shù         |
| polar<br><i>/'pəʊlə/</i>                                                                                                                               |       | jí xìng                      |
|  polar covalent<br><i>/'pəʊlə 'kəʊvələnt/</i>                       |       | jí xìng gòng jià             |
| polarizable                                                                                                                                            |       | yì jí huà                    |
|  potential energy<br><i>/pə'tenʃl 'enədʒi/</i>                      |       | shì néng                     |
| pre-equilibrium approximation                                                                                                                          |       | yù píng héng jìn sì          |
|  precipitate<br><i>/prɪ'sɪpɪteɪt/</i>                               |       | chén diàn                    |

| English                                                                                                                                   | Pinyin                      |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| precipitation reaction                                                                                                                    | chén diàn fǎn yìng          |
| products<br><i>/ˈprɒdʌkts/</i>                                                                                                            | shēng chéng wù              |
| proton transfer                                                                                                                           | zhì zǐ zhuǎn yí             |
| protons<br><i>/ˈprəʊtɒnz/</i>                                                                                                             | zhì zǐ                      |
| pure substance                                                                                                                            | chún jìng wù                |
|  rate constant<br><i>/reɪt ˈkɒnstənt/</i>                | sù lǚ cháng shù             |
|  rate law<br><i>/reɪt lɔː/</i>                           | sù lǚ dīng lǚ               |
| rate of reaction<br><i>/reɪt ɒv rɪˈækʃn/</i>                                                                                              | fǎn yìng sù lǚ              |
|  rate-determining step<br><i>/reɪt dɪˈtɜːmɪnɪŋ step/</i> | jué sù bù                   |
| reactants<br><i>/rɪˈæktənts/</i>                                                                                                          | fǎn yìng wù                 |
| reaction energy profile                                                                                                                   | fǎn yìng néng liàng tú      |
|  reaction mechanism<br><i>/rɪˈækʃn ˈmekənɪzəm/</i>      | fǎn yìng jī lǐ              |
|  reaction quotient<br><i>/rɪˈækʃn ˈkwɒʃənt/</i>        | fǎn yìng shāng              |
|  reaction rate<br><i>/rɪˈækʃn reɪt/</i>                | fǎn yìng sù lǚ              |
| real gases                                                                                                                                | zhēn shí qì tǐ              |
| rearrangement of atoms                                                                                                                    | yuán zǐ zhòng pái           |
|  redox<br><i>/rɪˈdɒks/</i>                             | yǎng huà huán yuán          |
| redox reaction<br><i>/rɪˈdɒks rɪˈækʃn/</i>                                                                                                | yǎng huà huán yuán fǎn yìng |
| reduced<br><i>/rɪˈdjuːst/</i>                                                                                                             | bèi huán yuán               |
|  reducing agent<br><i>/rɪˈdjuːsɪŋ ˈeɪdʒənt/</i>        | huán yuán jì                |
|  reduction<br><i>/rɪˈdʌkʃn/</i>                        | huán yuán                   |

| English                                                                                                                                         |          | Pinyin                |
|-------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------------|
|  relative abundance<br><i>/ˈrelatɪv əˈbʌndəns/</i>             |          | xiāng duì fēng dù     |
|  resonance<br><i>/ˈrezənəns/</i>                               |          | gòng zhèn             |
| resonance structure                                                                                                                             |          | gòng zhèn jié gòu     |
|  reversible reaction<br><i>/rɪˈvɜːsɪbl rɪˈækʃn/</i>            |          | kě nì fǎn yìng        |
| rotational<br><i>/rəʊˈteɪʃənəl/</i>                                                                                                             |          | zhuǎn dòng            |
| Saturated<br><i>/ˈsætʃəreɪtɪd/</i>                                                                                                              |          | bǎo hé                |
| sea of electrons                                                                                                                                |          | diàn zǐ hǎi           |
| shielding<br><i>/ˈʃiːldɪŋ/</i>                                                                                                                  |          | píng bì               |
| — sigma bond<br><i>/ˈsɪgmə bɒnd/</i>                                                                                                            | $\sigma$ | $\sigma$ jiàn         |
| Solids<br><i>/ˈsɒlɪdz/</i>                                                                                                                      |          | gù tǐ                 |
|  solubility<br><i>/ˌsɒljuːˈbɪlɪti/</i>                         |          | róng jiě dù           |
| solubility equilibrium                                                                                                                          |          | róng jiě píng héng    |
|  solubility product<br><i>/ˌsɒljuːˈbɪlɪti ˈprɒdʌkt/</i>      |          | róng dù jī            |
| solubility rules                                                                                                                                |          | róng jiě dù guī zé    |
|  solute<br><i>/ˈsɒljuːt/</i>                                 |          | róng zhì              |
|  solution<br><i>/səˈluːʃn/</i>                               |          | róng yè               |
|  solvent<br><i>/ˈsɒlvənt/</i>                                |          | róng jì               |
|  specific heat<br><i>/spəˈsɪfɪk hiːt/</i>                    |          | bǐ rè róng            |
|  specific heat capacity<br><i>/spəˈsɪfɪk hiːt kəˈpæsɪti/</i> |          | bǐ rè róng            |
|  spectator ions<br><i>/spekˈteɪtə ˈaɪənz/</i>                |          | páng guān lí zǐ       |
| spectrophotometry                                                                                                                               |          | fēn guāng guāng dù fǎ |

| English                                                                                                                                                     | Pinyin                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
|  Spectroscopy<br><i>/spek'trɒskəpi/</i>                                    | guāng pǔ xué                |
| standard cell potential<br><i>/'stændəd sel pə'tenʃl/</i>                                                                                                   | biāo zhǔn diàn chí diàn shì |
|  standard enthalpy of formation<br><i>/'stændəd en'θælpɪ ɒv fə:'meɪʃn/</i> | biāo zhǔn shēng chéng hán   |
|  standard molar entropy<br><i>/'stændəd 'mɒlə 'entrəpi/</i>                | biāo zhǔn mó ěr shāng       |
| standard solution                                                                                                                                           | biāo zhǔn róng yè           |
|  state function<br><i>/steɪt 'fʌŋkʃn/</i>                                  | zhuàng tài hán shù          |
| states of matter<br><i>/steɪts ɒv 'mætə/</i>                                                                                                                | wù zhì zhuàng tài           |
| stationary phase<br><i>/'steɪʃənəri feɪz/</i>                                                                                                               | gù dìng xiāng               |
|  stoichiometry<br><i>/,stəʊɪkɪ'ɒmətri/</i>                                 | huà xué jì liàng            |
| strong                                                                                                                                                      | qiáng                       |
|  strong acid<br><i>/strɒŋ 'æsɪd/</i>                                      | qiáng suān                  |
|  strong base<br><i>/strɒŋ beɪs/</i>                                      | qiáng jiǎn                  |
| subshells                                                                                                                                                   | yà céng                     |
| substitutional alloy                                                                                                                                        | zhì huàn hé jīn             |
| Supersaturated                                                                                                                                              | guò bǎo hé                  |
| Surface area<br><i>/'sɜ:fɪs 'eəriə/</i>                                                                                                                     | biǎo miàn jī                |
| surroundings<br><i>/sə'reʊndɪŋz/</i>                                                                                                                        | huán jìng                   |
| <b>T</b> Symbolic<br><i>/sɪm'bɒlɪk/</i>                                                                                                                     | fú hào                      |
|  synthesis<br><i>/'sɪnθəsis/</i>                                         | huà hé fǎn yìng             |
| system<br><i>/'sɪstəm/</i>                                                                                                                                  | xì tǒng                     |

| English                                                                                                                                                 | Pinyin                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| tangent<br><i>/'tændʒənt/</i>                                                                                                                           | qiè xiàn                    |
| Temperature<br><i>/'temprɪtʃə/</i>                                                                                                                      | wēn dù                      |
| Termolecular                                                                                                                                            | sān fēn zǐ                  |
| tetrahedral<br><i>/,tetrə'hi:drəl/</i>                                                                                                                  | sì miàn tǐ                  |
|  theoretical yield<br><i>/θiə'retɪkl jɪ:ld/</i>                        | lǐ lùn chǎn liàng           |
|  thermal equilibrium<br><i>/'θɜ:məl ,i:kwɪ'libriəm/</i>                | rè píng héng                |
|  Thermochemistry<br><i>/'θɜ:məkemɪstri/</i>                            | rè huà xué                  |
| thermodynamic control                                                                                                                                   | rè lì xué kòng zhì          |
|  thermodynamically favorable<br><i>/,θɜ:məʊdaɪ'næmɪkli 'feɪvərəbl/</i> | rè lì xué yǒu lì de         |
|  titration<br><i>/taɪ'treɪʃn/</i>                                      | dī dīng                     |
|  titration curve<br><i>/taɪ'treɪʃn kɜ:v/</i>                          | dī dīng qū xiàn             |
|  transition state<br><i>/træn'sɪʃn steɪt/</i>                        | guò dù tài                  |
| trigonal planar<br><i>/'trɪɡənl 'pleɪnə/</i>                                                                                                            | píng miàn sān jiǎo xíng     |
| triple bond<br><i>/'trɪpl bɒnd/</i>                                                                                                                     | sān jiàn                    |
| Ultraviolet and visible                                                                                                                                 | zǐ wài hé kě jiàn           |
| Unimolecular                                                                                                                                            | dān fēn zǐ                  |
| Unsaturated<br><i>/ʌn'sætʃəreɪtɪd/</i>                                                                                                                  | bù bǎo hé                   |
|  valence electrons<br><i>/'veɪləns ɪ'lektɹɒnz/</i>                   | jià diàn zǐ                 |
| vibrational<br><i>/vaɪ'breɪʃənl/</i>                                                                                                                    | zhèn dòng                   |
|  VSEPR<br><i>/'vespə/</i>                                            | jià céng diàn zǐ duì hù chǐ |

| English                                                                                                            | Pinyin                                |
|--------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| VSEPR theory<br><i>/ˈvespə ˈθɪəri/</i>                                                                             | jià céng diàn zì duì hù chǐ lǐ<br>lùn |
| wavelength<br><i>/ˈwɛvlɛŋθ/</i>                                                                                    | bō cháng                              |
| weak<br><i>/wi:k/</i>                                                                                              | ruò                                   |
|  weak acid<br><i>/wi:k ˈæsɪd/</i> | ruò suān                              |
| weak base<br><i>/wi:k beɪs/</i>                                                                                    | ruò jiǎn                              |
| weighted average                                                                                                   | jiā quán píng jūn                     |