AS Chemistry Definitions List

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| Keyword | Definition |
| Activation Energy | Minimum energy **(1)**required before a reaction can occur or go or start **(1)** |
| Atomic number | Number of protons in one atom or nucleus **(1)**Allow protons & electronsdo not allow protons + electrons or electrons **1** |
| Catalyst | A substance that speeds up the reaction / alters the rate but is chemically unchanged at the end / not used up Both ideas needed |
| Dynamic Equilibrium | Rate of forward reaction = rate backward reaction **(1)**concentration remains constant **(1)**NOT ‘Equal’, Allow  ‘The same’ if clear that means constant **2** |
| Electronegativity | Tendency **or** strength **or** ability **or** power of an atom/element/nucleus toattract/withdraw electrons / e– density / bonding pair / shared pair **1**In a covalent bond (tied to M1 – unless silly slip in M1)(If molecule/ion then = CE = 0) (NOT electron (singular) for M1)**Mark as 2 + 2 1** |
| Empirical Formula | (simplest) ratio of atoms of each element in compound **(1)** |
| Enthalpy Change | Heat energy change **(1)**Not energy on its ownmeasured at constant pressure **(1)**Mark separately, ignore constant temperature statements **2** |
| First Ionisation Energy | Enthalpy/energy change/required when an electron is removed/ knocked out / displaced/ to form a uni-positive ion (ignore ‘minimum’ energy)**1**from a gaseous atom (could get M2 from a correct equation here) (accept ‘Enthalpy/energy change for the process...’followed by an appropriate equation, for both marks)(accept molar definitions)**1**  |
| Hess’s Law. | (The enthalpy change for a reaction is) independent of the route **(1)** |
| Isotope | Atoms with the same number of protons / proton number **(1)**NOT same atomic numberwith different numbers of neutrons **(1)****NOT** different mass number / fewer neutrons |
| Le Chatelier’s Principle | Equilibrium opposes a change; (Q of L mark) **1** |
| Mass Number | p + n / number of nucleons(accept protons and neutrons)(Incorrect reference to electrons = contradiction) |
| Mean Bond Enthalpy | (Energy required) to break a given covalent bond **(1)**averaged over a range of compounds **(1)**Penalise first mark if ‘energy’ / ‘enthalpy’ evolved **2** |
| Oxidation | Loss (of electrons) **(1)** |
| Oxidising Agent | Species that Gains electrons (or removes electrons) **1** |
| Periodicity | Pattern in the change in the properties of a row of elements **(1)**OR Trend in the properties of elements across a period       Repeated in the next row **(1)**OR element underneath (or in same group) has similar properties |
| Rate of Reaction | (Measured) change in concentration (of a substance) in unit time/ given timeMay be written mathematicallyOR the gradient of the concentration (against) time**1** |
| Reducing Agent | A reducing agent loses (donates) electrons (1) |
| Reduction | Reduction involves gain of electrons (1) |
| Relative Atomic Mass | Average/mean mass of (1) atom(s) (of an element) **1**1/12 mass of one atom of 12C **1****OR**(Average) mass of one mole of atoms1/12 mass of one mole of 12C**OR**(Weighted) average mass of all the isotopes1/12 mass of one atom of 12C**OR**Average mass of an atom/isotope compared to C-12 on ascale in which an atom of C-12 has a mass of 12Not average mass of 1 moleculeAllow the wording Average mass of 1 atom of an element compared to 1/12 mass atom of 12C (or mass 1/12 atom of 12C)Allow if moles of atoms on both linesAccept answer in wordsCan have top line × 12 instead of bottom line ÷12If atoms/moles mixed, max = 1 |
| Relative Molecular Mass |  (ii) Mean /average mass of a molecule/entity/formula **1**1/12th mass of atom of 12C[Not 1/12th mass of molecule of 12C](mark independently) **1****OR** Mass of 1 mole of molecules/entities (1)1/12thmass of 1 mole of 12C (1)**OR** Average mass of a molecule/entity (1)Relative to the mass of a 12C atom taken as 12 / 12.000 (1)(Mean/average = stated or explained)(mass = stated or explained)(Penalise ‘weight’ once only)(Ignore ‘average ‘ mass of 12C)(Do not allow ‘mass of average molecule) |
| Standard Enthalpy of Combustion | Enthalpy change when 1 mol of a substance(or compound) (QL mark) **1**is (completely) burned in oxygen (or reacted in excess oxygen) **1**at 298 K and 100 kPa (or under standard conditions) **1** |
| Standard Molar Enthalpy of Formation | (Enthalpy change) when 1 mol **(1)** of a compound is formedfrom its constituent elements **(1)** in their standard states **(1)**Allow energy or heat, Ignore evolved or absorbedMark each point independently (b) |