

L3-CHEMR



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Level 3 Chemistry

RESOURCE BOOKLET

Refer to this booklet to answer the questions in your Question and Answer Booklets.

Check that this booklet has pages 2–3 in the correct order and that none of these pages is blank.

YOU MAY KEEP THIS BOOKLET AT THE END OF THE EXAMINATION.

Formulae for 91390: *Demonstrate understanding of thermochemical principles and the properties of particles and substances*

$$n = cV$$

$$n = \frac{m}{M}$$

$$q = mc\Delta T$$

$$\Delta_r H^\circ = \sum \Delta_f H^\circ(\text{products}) - \sum \Delta_f H^\circ(\text{reactants})$$

Formulae for 91392: *Demonstrate understanding of equilibrium principles in aqueous systems*

$$\text{pH} = -\log[\text{H}_3\text{O}^+]$$

$$[\text{H}_3\text{O}^+] = 10^{-\text{pH}}$$

$$K_w = [\text{H}_3\text{O}^+][\text{OH}^-] = 1 \times 10^{-14} \text{ at } 25^\circ\text{C}$$

$$\text{p}K_a = -\log K_a$$

$$K_a = 10^{-\text{p}K_a}$$

$$K_a = \frac{[\text{H}_3\text{O}^+][\text{A}^-]}{[\text{HA}]}$$

$$K_s = s^2$$

$$K_s = 4s^3$$

$$n = cV$$

$$n = \frac{m}{M}$$

PERIODIC TABLE OF THE ELEMENTS

Atomic number																		1 H 1.0	Relative atomic mass																
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57	La	139	Ce	140	Pr	141	Nd	144	Pm	147	Sm	150	Gd	157	Tb	159	Dy	163	Ho	165	Er	167	Tm	169	Yb	173
89	Ac	227	Th	232	Pa	231	U	238	Np	237	Pu	239	Cm	244	Bk	249	Cf	251	Es	252	Fm	257	Md	258	No	259

