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Class 12 Chemistry

Physical, Inorganic & Organic One-Liners

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Physical Chemistry

- First-order reaction: $k = (2.303/t) \log([A_0]/[A])$.
- Molarity = moles of solute / litres of solution.
- Raoult's law: partial vapour pressure is proportional to mole fraction.
- $E^\circ_{\text{cell}} = E^\circ_{\text{cathode}} - E^\circ_{\text{anode}}$; $\Delta G = -nFE^\circ$.
- Colligative properties depend on the number of particles, not their nature.

Inorganic Chemistry

- d-block elements show variable oxidation states and form coloured ions.
- Lanthanoid contraction: steady decrease in size across the 4f series.
- Coordination compounds: ligands donate electron pairs to a central metal.
- KMnO_4 and $\text{K}_2\text{Cr}_2\text{O}_7$ are strong oxidising agents.

Organic Chemistry

- Haloalkanes undergo SN1 (tertiary) and SN2 (primary) substitution.
- Aldehydes give positive Tollens' and Fehling's tests; ketones do not.
- Carboxylic acids are more acidic than phenols, which are more acidic than alcohols.
- Amines are basic; aniline is less basic than aliphatic amines.
- Biomolecules: carbohydrates, proteins, lipids and nucleic acids.

Want the full Class 12 Chemistry PDF with reactions and mechanisms?

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