

OCR (B) Chemistry A-Level

CD1- Bonding and Structure

Flashcards

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How do dyes attach themselves to fibres?



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- Hydrogen bonding (& other intermolecular forces e.g. van der Waals).
- Covalent bonds.
- Ionic bonds.



What is the chromophore?



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An atom or group responsible for the colour of a compound.



What functional groups modify the chromophore?



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- Functional groups such as $-\text{OH}$, $-\text{NH}_2$, or $-\text{NR}_2$ are often added/attached to chromophores to alter the colour of the compound.
- The groups added have lone electron pairs which join the system of delocalisation.



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- In polymers such as nylon, wool, and silk, -COOH and $\text{-SO}_3\text{H}$ groups are attracted to the slightly basic -NH groups of the amide links.
- -OH groups allow hydrogen bonding to occur between the dye and fibre.



What functional groups affect the solubility of the dye?



What functional groups affect the solubility of the dye?

- Auxochromes, e.g. Carboxylic acid, sulfonic acid, amino, and hydroxyl groups.
- They are most commonly used to alter dye solubility.

