In which of the following solvents is silver chloride most soluble?

- (i) $0.1 \text{ mol dm}^{-3} \text{ AgNO}_3 \text{ solution}$
- (ii) 0.1 mol dm⁻³ HCl solution
- (iii) H₂O
- (iv) Aqueous ammonia

Ans:

iv) Silver chloride forms a soluble complex with aqueous ammonia. AgCl + 2NH $_3$ \rightarrow [Ag(NH $_3$) $_2$]Cl