

Exercise 9.2 Intermolecular Forces

1. Consider the following chemical systems:
- dilute aqueous NaNO_3 (sodium nitrate in water)
 - liquid Cl_2 (elemental chlorine)
 - I_2 dissolved in $\text{CH}_3\text{CH}_2\text{OH}$ (iodine dissolved in ethanol, called *tincture of iodine* for medical disinfection.)

Complete the table below by:

- Listing the different kinds of intermolecular forces (IMFs) as headings in the top (shaded) row (as many as needed for systems (a) to (c)).
- Indicating which IMFs are relevant to each system by putting a checkmark in the appropriate boxes next to the chemical system.
- Circling the checkmark for the dominant (strongest) IMF for each chemical system.
- In **one** sentence, explaining **why** that is the strongest IMF for the system.

System	IMF:	IMF:	IMF:	IMF:	IMF:	IMF:	IMF:
$\text{NaNO}_3(\text{aq})$							
Rationale							
$\text{Cl}_2(l)$							
Rationale:							
I_2 in EtOH							
Rationale:							