

2. The enthalpy of the decomposition of Nitrogen Triiodide to Nitrogen gas and Iodine gas is $-318 \text{ kJ (mol rxn)}^{-1}$. Based on this and the bond energies listed on the back of your periodic table, estimate the ***N—I bond energy***.

3. An electron drops from the 4th energy level to the 1st energy level in a Li^{2+} ion. What is the ***wavelength, in nm***, of the light emitted?

4. For each of the following compounds:
- Draw the electron dot structure (or Lewis structure)
 - What is the electron group geometry?
 - What is the molecular geometry?
 - Does the molecule have a resonance structure? (yes or no)
 - Is the molecule polar?
 - What is the hybridization on the central atom?
 - How many \hat{O} and \tilde{N} bonds are present

i. SeF_4	ii.	i. XeF_2O	ii.
	iii.		iii.
	iv.		iv.
	v.		v.
	vi.		vi.
	vii.		vii.