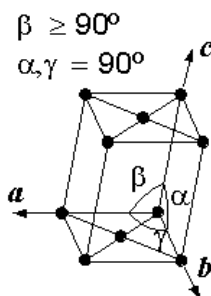


**Chem 370 - Spring, 2019**  
**Fifteen Minute Quiz No. 7**

1. (2 points) In terms of either the Brønsted-Lowry theory (extended to non-aqueous protonic solvents) or the solvent system concept, indicate whether each of the following reactions would result in a solution that is acidic or basic:
- a. In solvent  $\text{ClF}_3(l)$ ,  $\text{ClF}_3 + \text{NOF} \rightarrow \text{NO}^+ + \text{ClF}_4^-$       Acidic or basic? **basic**
- b. In solvent  $\text{NH}_3(l)$ ,  $\text{NH}_3 + \text{CH}_3\text{CO}_2\text{H} \rightarrow \text{NH}_4^+ + \text{CH}_3\text{CO}_2^-$       Acidic or basic? **acidic**
2. (1 point) Circle the acid that *would not* be considered to be leveled in solvent water.



3. (2 points) shown below is one of the fourteen Bravais lattices.



Give the name of this lattice.

**Face-centered monoclinic<sup>1</sup>**

Is it primitive or non-primitive?

**Non-primitive**

How many lattice points does it contain?

**2**

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<sup>1</sup>Also called end-centered monoclinic or base-centered monoclinic.