

CHEMISTRY 110
Electrolytes

Name _____
last first

1) Indicate which of the following compounds are **soluble salts** by placing an "X" in the blank space that the right.

ferrous hydroxide_____	ammonium bromate_____
sodium dihydrogen phosphate_____	potassium cyanide_____
lithium sulfate_____	barium phosphate_____
nitrous acid_____	aqueous ammonia_____
manganese (II) acetate_____	C ₂ H ₆ O_____
silver chloride_____	sodium carbonate_____
zinc carbonate_____	cobalt (II) sulfite_____

2) Circle those compounds which are weak acids in water

HI HC₆H₅O₂HNO₂ H₂SO₄ HF H₂S HClO

3) Circle those compounds which are soluble hydroxides in water

Mg(OH)₂ LiOH Al(OH)₃ KOH Co(OH)₂ Ca(OH)₂

4) List the chemical formulas of the following compounds that are **strong electrolytes**

potassium sulfate	nitrous acid	barium phosphate
hydrofluoric acid	nitric acid	zinc chloride
lead (II) acetate	aqueous ammonia	C ₁₂ H ₂₂ O ₁₁ (aq)
sodium carbonate	CH ₃ OH(aq)	ammonium chlorate
dichromic acid	lithium cyanide	potassium mono hydrogen phosphate

5) List the chemical formulas for the compounds from question 4 that are **weak electrolytes**

6) List the chemical formulas for the compounds from question 4 that are **nonelectrolytes**

7) Indicate which are the most abundant particle, ions or molecules for aqueous solutions of the following compounds.

Write the formulas of the predominant species in the space at the right.

	<u>molecules</u>	<u>ions</u>	<u>Solution Inventory</u> <u>(Predominant Species)</u>
magnesium acetate	_____	_____	_____
$C_2H_6O(aq)$	_____	_____	_____
potassium iodide	_____	_____	_____
sodium hydroxide	_____	_____	_____
acetic acid	_____	_____	_____
aqueous ammonia	_____	_____	_____
lithium sulfide	_____	_____	_____
nickel (III) nitrate	_____	_____	_____
$HCHO_2(aq)$	_____	_____	_____
ammonium sulfate	_____	_____	_____
lithium oxalate	_____	_____	_____
perchloric acid	_____	_____	_____