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| --- | --- | --- |
| How do we show something dissolving?  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues, Weds., &Thurs after school!  After-hours question? Email me at home: [eagenest@madison.k12.wi.us](mailto:eagenest@madison.k12.wi.us) |  | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

1. From the textbook, copy the diagrams from **page 483** in good detail, including the caption:

|  |  |
| --- | --- |
|  | caption |

1. Now add a tiny “+” to the hydrogen atom on each water molecule and a tiny “-” to each oxygen atom on a water molecule in your drawings above. (that will be a few dozen of each symbol altogether)

For each of the following, Underline compounds that are molecular, circle compounds that are ionic

1. C2H3OH SO3 MgCl2 CH3OH(L) FeF3

**For each substance below write a dissociation equation (something like "A(s) -> B(aq) + C(aq)") to describe that substance dissolving:**

* 1. LiCl This is □ionic □molecular (don’t forget to write solid, liquid, aqueous next to each symbol)

\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_

* 1. CH3OH(L) This is □ionic □molecular (don’t forget to write solid, liquid, aqueous next to each symbol)

\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_

* 1. LiNO This is □ionic □molecular (don’t forget to write solid, liquid, aqueous next to each symbol)

\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_

* 1. NaBr(s) This is □ionic □molecular (don’t forget to write solid, liquid, aqueous next to each symbol)

\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_ + \_\_\_\_\_\_\_

* 1. C12H22O11(s) This is □ionic □molecular (don’t forget to write solid, liquid, aqueous next to each symbol)

\_\_\_\_\_\_\_ 🡪 \_\_\_\_\_\_\_\_

1. Write the correct formula that each compound would have. Remember, the total charge of any substance is **zero charge**

|  |  |  |  |
| --- | --- | --- | --- |
|  | O2- | OH- | PO43- |
| Mg2+ |  |  |  |
| K+ |  |  |  |
| NH4+ |  |  |  |
| Iron(III) ion  {look up the symbol on your chart} |  |  |  |

1. For each description below, fill in one row on the table below

|  |  |  |
| --- | --- | --- |
| A single Cation (show charge) | A single Anion (show charge) | Formula |
|  |  | MgCl2  (You made this in lab last week) |
|  |  | H3PO4  (a semi-harmless acid found in cola) |
|  |  | Al2O3  ('rusty aluminum', a major component of clay) |

1. Draw a cartoon, similar to the drawing in #1 to show the dissolving of MgCl2

|  |
| --- |
|  |

If the cation formed is Mg2+ and the anion is Cl-, MgCl2 should create three particles when it dissolves. In your drawing above, make the positive ions say Mg2+ and make each negative ion say Cl-.

**Circle one choice:** Compared to the number of Mg2+ cations formed, the number of Cl- anions formed should be **( half as many / the same quantity / twice as many )**