

Due Thursday, Oct 27, via e-mail, by 11:59pm.

### **Invention of New Compounds**

Over the last several weeks, we have been discussing the formation and properties of ionic compounds and covalent compounds. Your goal is to propose a new compound, not presently known, and to describe its structure and properties. Remember a compound is made of more than one element!

*What qualifies as new:* If I did an Internet search of your compound, I should not be able to find any information on it.

*Project Parameters:*

Your compound should have:

- A name
- Chemical Formula
- Description of its structure/shape (pictures or drawings are welcome)
- Description of its physical properties (non-exhaustive examples below)
  - Will it be a gas, liquid, solid, gel, plasma, or something else?
  - Will it conduct electricity?
  - Is it brittle, malleable, flowing, (in)visible?
  - Will it dissolve in water, stick to a surface, explode easily?
- What might it be used for (if there is a practical use)? If you suggested, a practical use, you should justify why you think it might work for your suggestion. Or if there is no practical use, what makes it interesting?

You may work in groups, but if you do so, your group must propose one new compound PER group member. So if you're in a group of three you should propose three compounds. My suggestion if you do this is for your group to initially come up with your first new compound, and then have the ideas be derivatives of the original (i.e., tweak some of the atoms) but keep much of it similar because it would then likely have related structure and properties (but there might be minor differences).

While we haven't technically covered metallic bonding, if you choose an all-metal compound (some sort of alloy), that is fine too.

**The document with your proposed new compound(s) should be in either Word (.docx) or PDF format so that I can read it.**

*You are most welcome to stop by my office (or send me e-mail) to bounce off your ideas and suggestions.*