

To determine what possible compounds can be made when combining 2 different nonmetals, a simple T-chart will help you figure out their formulas, then you can name them using the 1st name rule and the 2nd name rule. One example follows, do the next 5 on loose leaf paper the same way.

What compounds can be made with silicon and bromine? (put the selected oxidation numbers in the T-chart first) Make positive/negative combos that will criss-cross, as shown).

Note: two positive numbers can't do this; neither can two negative numbers.

Silicon	Bromine		
-4	-1	Si -4 and Br +1 → SiBr ₄	Silicon tetrabromide
		Si -4 and Br +5 → Si ₅ Br ₄	Penta-silicon tetrabromide
+2	+1	Si +2 and Br -1 → SiBr ₂	Silicon dibromide
+4	+5	Si +4 and Br -1 → SiBr ₄	Silicon tetrabromide

Determine the formulas and proper names of all possible compounds that can form from these five pairs of nonmetal elements, just like the example above.

1. Carbon and Chlorine
2. Phosphorous and Bromine
3. Silicon and oxygen
4. Nitrogen and Fluorine
5. Boron and Iodine