

# The Chemical Kidney Demonstration Worksheet

## Discussion Questions

1. Note the initial contents of each beaker, as well as the final color.

Beaker 1 –

Beaker 2 –

Beaker 3 –

Beaker 4 –

Beaker 5 –

2. Write the following balanced chemical equations for the reactions that occurred in this demonstration. Note the formation of ferric tannate in Beaker 4 and the iron(III) oxalate complex in Beaker 5 are not included, due to their unknown compositions.

*a.* The combination of iron(III) ions with water (Beaker 1)

*b.* Hydrated iron(III) ions reacting with thiocyanate ions (Beaker 2)

3. The same reaction occurs in Beaker 2 as in Beaker 3 – Beaker 3 reacts with the excess hydrated iron(III) ions from Beaker 2. Why, then, is Beaker 3 a different color?