

Emission Spectra (Visual)

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MATERIALS

- 5 spray bottles filled with salts (of your choice) dissolved in ethanol or ethanol/water
- Propane torch or Bunsen burner
- Striker or lighter

PRESENTATION

- Ignite the propane torch with the striker
- Using all or some of the spray bottles, spray into the top of the flame coming from the propane torch. Spraying at the bottom of the flame may extinguish it.

DISCUSSION

Flame Color	Chemical
Red	lithium chloride
	strontium chloride
Green	Copper chloride
Orange	Calcium chloride
Purple	Potassium chloride

Yellow

Sodium chloride

- Discussions about this demonstration are usually about electron energy states.

HAZARDS

- Avoid breathing any vapors. This should be done in a well ventilated room with safety glasses and gloves.
- **Strontium Chloride:** <http://www.sciencelab.com/msds.php?msdsId=9925107> [1]
- **Lithium Chloride:** <http://www.sciencelab.com/msds.php?msdsId=9927210> [2]
- **Copper Chloride:** <http://www.sciencelab.com/msds.php?msdsId=9923592> [3]
- **Calcium Chloride:** <https://www.sciencelab.com/msds.php?msdsId=9923251> [4]
- **Potassium Chloride:** <https://www.sciencelab.com/msds.php?msdsId=9927402> [5]
- **Sodium Chloride:** <http://www.sciencelab.com/msds.php?msdsId=9927593> [6]

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Department of Chemistry and Biochemistry at The University of Arizona
P.O. Box 210041, 1306 East University Blvd., Tucson, AZ 85721-0041
Phone: 520.621.6354 Fax: 520.621.8407

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Source URL (retrieved on 01/12/2013 - 5:53am):

http://www.chem.arizona.edu/lecture_demos/fe_iii_thiocyanate_ion_eq

Links:

- [1] <http://www.sciencelab.com/msds.php?msdsId=9925107>
- [2] <http://www.sciencelab.com/msds.php?msdsId=9927210>
- [3] <http://www.sciencelab.com/msds.php?msdsId=9923592>
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- [5] <https://www.sciencelab.com/msds.php?msdsId=9927402>
- [6] <http://www.sciencelab.com/msds.php?msdsId=9927593>
- [7] <http://www.chem.arizona.edu/taxonomy/term/11>