

FLAME SALTS MODEL SP-4700

The usual way to color a flame is to dip a platinum or nichrome wire in the selected salt and insert it into a colorless Bunsen burner flame. The wire is usually first moistened with hydrochloric acid. The salt may be placed in a watch crystal or on a glass plate for this work.

Another satisfactory method is to make a concentrated solution of the salt in a small beaker. A clean pyrex test tube that has been partially filled with cold water is then dipped into the solution which adheres to the outside and bottom of the test tube. The tube is then held in the colorless Bunsen flame. The salt will vaporize and color the flame which can then be examined with the spectroscope. The purpose of the cold water within the test tube is to prevent the glass from getting so hot as to also impart color to the flame.

Boric acid does not ordinarily color the flame appreciably, but by moistening the boric acid first with alcohol and then with sulfuric acid, the green emission of boron will be seen.

No salt of sodium is furnished since ordinary table salt can be used. A glass rod heated to incandescence will also give the sodium lines.

The spectra of four of the six salts are included on the WINSKO Spectrum Analysis Chart (catalog #SP-187). The information for the other two (potassium & boron) can be found in any standard reference book.

WARNING:

DO NOT INGEST OR ALLOW CONTACT WITH EYES OF SALTS WITHIN THESE VIALS. IF THIS SHOULD OCCUR, GET IMMEDIATE MEDICAL ATTENTION.



The six salts included in the Flame Salts kit are:

Lithium carbonate
Strontium nitrate
Calcium carbonate
Potassium chloride
Barium carbonate
Boric acid