

## Bengal Fire

### Materials

Potassium chlorate, icing sugar, strontium nitrate, concentrated sulfuric acid.

### Introduction

In days of yore, Hindu priests were pretty good psychologists. They knew what would awe the crowd. One common trick was to invoke atavistic influences. This was achieved in temples of Kali in Bengal by burning balls of chemicals that produced intense bright red light in closed confines. The bright red tongue of flame was compared to that of this ferocious Goddess! We are now going to cast you under this spell!

### Procedure

Mix 10g potassium chlorate with 20 g strontium nitrate, and finally 10 g icing sugar. Mix gently by rotating the paper (caution!). Make a heap and add a few drops of concentrated sulfuric acid.

### The Chemistry

Chlorate and nitrate oxidize sugar to carbon dioxide and water in a highly exothermic reaction.



Notes: Similar to Magic Wand Demo.

### Safety

Perform this demonstration in the fume hood. This is a violent reaction. The mixing order should be potassium chlorate with potassium nitrate followed by sugar. Do not use a spatula!

### References

<http://crsi.org.in/docs/magic3.pdf>  
Bengal Fire.

<http://chemlearn.chem.indiana.edu/demos/magiwand.htm>  
The Magic Wand.