Email : sales@scilabexport.com
Phone: +91-7082934803

Product Name :

Flame Test Of Chemicals Lab Investigation

Product Code :

SLE/CH/133



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Phone: +91-7082934803

Description :

Flame Test Of Chemicals Lab Investigation (Product Code: SLE/CH/133) is a classroom investigation, sized for a class of 40 students, in which learners discover how elements can be identified by the colour they give to a flame. Students observe and record the colours emitted by metallic elements on heating, compare them with known standards to identify unknown samples, and use the results to explore the electronic structure of the atom. Manufactured by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, Ambala, India, it serves as a ready-to-run flame test kit for schools in India teaching atomic structure and qualitative analysis.

Key Details

Parameter	Detail
Type	Flame test lab investigation
Class size	40 students
Student tasks	Observe and record flame colours of metallic elements; relate results to known standards; identify unknown samples
Concepts	Electronic structure of the atom; relationship between colour and energy in the electromagnetic spectrum
Component list	Not detailed in this listing – available on request

Typical Use

When a metal compound is heated in a hot, non-luminous flame, some of its electrons absorb energy and jump to higher energy levels; as they fall back they release light of particular wavelengths, which the eye sees as a characteristic colour. Sodium compounds, for instance, give an intense yellow-orange flame. Students first test the known standards and build a colour reference table, then use that table to name the unknowns, and finally discuss why a red flame corresponds to lower-energy light than a violet one.

Clean the sampling loop or splint thoroughly between samples, because a trace of sodium can mask fainter colours, and let students view the flames against a dark background. Viewing the same flames through a spectroscope turns a colour observation into a set of spectral lines, which is an effective extension for senior classes. Teachers looking for a chemistry teaching kit in India that connects practical work to atomic theory will find this investigation covers both in a single session.

Manufacturer

This lab investigation is manufactured by Jain Scientific Equipments Private Limited, trading as ScienceLab from Ambala, Haryana, India, a supplier of practical kits and apparatus and supplied to schools and colleges. Visit our company profile to learn more.

Related Chemistry Lab Equipment

Equip

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