

**0211 INTERPRETATION OF SAFE PARAMETERS OF CHEMICAL COMPOSITIONS AND NOISE LEVEL OF THE FIREWORKS CRACKERS**

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10.1136/ip.2010.029215.211

Fireworks makes kids happy during the festival occasions especially Deepavali. Even though it is amazing, it has many hazards which give harms to old people and patients. According to Supreme Court verdict (2005) that cracker should not give the sound level exceeding 125dBA (I) at 4-meter distances. So it has become more compulsory for alternative fireworks products to reduce noise level at the same time without losing the splendor and joy of fireworks. Those tools have quantitative data on sensitivity (exothermic onset temperature) as well as severity (heat of decomposition). So these respective equipments (DSC and TG-DTA) are used on my paper for studying the thermal characteristics of various fire cracker compositions. Impact sensitivity of Pyrotechnic Flash Compositions consisting of mixtures of Potassium Nitrate ( $\text{KNO}_3$ ), Sulphur (S) and Aluminum (Al) is experimentally analyzed using equipment similar to BAM (fall hammer) equipment and friction sensitivity.