ANALYSIS OF FIREWORK'S COMPOSITION OF DIFFERENT BRANDS

Dr. Jyotsana Pandit*

*SBAS, Sanskriti University, Mathura, Uttar Pradesh, INDIA Email id: jyotsna.sobas@sanskriti.edu.in DOI: 10.5958/2249-7315.2021.00371.3

ABSTRACT

The research investigations with a similar aim of evaluating components present in fireworks and establishing their composition, which is then compared to specifications, are examined in this article. This study is required since illegal manufacturing, unintentional fires, arson, and other crimes are on the increase. It is essential to inspect the fireworks to decide whether or not were manufactured according to standard procedure that follows concentrates on the numerous instrumentations and colorimetric measurements that are used to identify the exact structure and percentage ratio of distinct fire crackers. Electron Microscopy, and Potentiometry are the most frequently utilized instruments. They're utilized to figure out things like anions, cations, other metals, organic compounds, resins, and so on. Various brands of firecrackers from various manufacturing companies were acquired and examined in the experiments described below. Despite the high incidence of explosive injuries in India, few research on the quality assessment of fire crackers have been conducted in the nation. The majority of the study has been done on events that have happened in the United States. It is essential that more study into explosions, explosives, and explosive debris be done in order to assist in the investigation of these occurrences. Researchers will establish if any heavy explosive material is utilized to enhance the efficacy of the fire crackers, which may be as strong as a bomb.

KEYWORDS: Analysis, Blast Particles, Chemical, Composition, Consumer Fireworks, Explosives, Fire Crackers, Methods, Powder, Pyrotechnic, Research.

REFERENCES

- 1. S. M. Danali, R. S. Palaiah, and K. C. Raha, "Developments in pyrotechnics," *Defence Science Journal*. 2010, doi: 10.14429/dsj.60.333.
- 2. S. M. Mannan, "Regulations under Explosives Rules, 2008 Present scenario," J. Mines, Met. Fuels, 2016.
- **3.** B. Berger, "Parameters influencing the pyrotechnic reaction," 2005, doi: 10.1002/prep.200400082.
- 4. "THE EXPLOSIVES ACT.," The Lancet. 1897, doi: 10.1016/S0140-6736(00)31442-8.
- 5. J. J. Sabatini, "A Review of Illuminating Pyrotechnics," *Propellants, Explosives, Pyrotechnics*. 2018, doi: 10.1002/prep.201700189.
- 6. R. G. Parker, M. O. Stephenson, J. M. McOwen, and J. A. Cherolis, "Analysis of Explosives and Explosive Residues. Part 1: Chemical Tests," *J. Forensic Sci.*, 1975, doi: 10.1520/jfs10249j.
- **7.** T. Baran, "Identification of explosive materials," *Forensic Sci. Int.*, 1990, doi: 10.1016/0379-0738(90)90152-O.

Asian Research consortium www.aijsh .com

Asian Journal of Research in Social Sciences and Humanities

ISSN: 2249-7315 Vol. 11, Issue 12, December 2021 SJIF 2021 = 8.037 A peer reviewed journal

- 8. B. Glattstein, E. Landau, and A. Zeichner, "Identification of Match Head Residues in Post-Explosion Debris," *J. Forensic Sci.*, 1991, doi: 10.1520/jfs13157j.
- 9. G. P. Pan, "Development and innovation of pyrotechnics in China," *Hanneng Cailiao/Chinese J. Energ. Mater.*, 2010, doi: 10.3969/j.issn.1006-9941.2010.04.020.
- 10. G. B. Pulpea, "Aspects Regarding The Development Of Pyrotechnic Obscurant Systems For Visible And Infrared Protection Of Military Vehicles," Int. Conf. KNOWLEDGE-BASED Organ., 2015, doi: 10.1515/kbo-2015-0123.

Asian Research consortium www.aijsh .com