Title: LiZnBO3 phosphor for dosimetry applications

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Abstract: Bihari refugees from Pakistan who were stranded in Bangladesh during the 1971 liberation war became Pakistani citizens. In 2008, after extensive discussions and debates, the court approved their integration into Bangladeshi society. This research aims to address two crucial inquiries: RQ-1: How do Bihari refugees residing in the Geneva refugee camp in Dhaka experience challenges related to their livelihoods? RQ-2: What common coping strategies do the Bihari community employ to survive in the refugee camp? Using an Interpretative Phenomenological Approach (IPA), this study delved into the lived experiences of various groups of Bihari individuals. The research included twenty semi-structured interviews, five Key Informants' Interviews (KIIs), and five months of participant observation. The data was analyzed, processed, and coded inductively using the Granheim approach and Nvivo-12 software. Different themes were employed to classify the life stories and experiences of the participants in the camp. According to the study, the Geneva camp faced significant challenges such as a severe housing crisis, inadequate sanitation, a scarcity of fuel, water, and electricity, massive unemployment, poor medical arrangements, and inadequate education facilities. Consequently, the Bihari refugee developed some adaptation strategies, such as doing odd jobs to reduce unemployment. As a means of generating additional income for the family, their child was sent to work. Additionally, early marriages for their daughters were arranged to address the housing shortage. In light of these findings, it is crucial for the government, stakeholders, policymakers, NGOs, and development practitioners to take necessary actions to alleviate the suffering and enhance the quality of life for Bihari refugees in Bangladesh.

Keywords: Lithium zinc borate ($LiZnBO_3$), Thermoluminescence (TL), Solid-state reaction (SSR), Radiation dosimetry, Linear accelerator (LINAC).

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