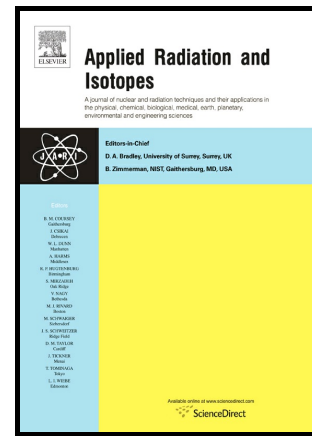


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Comparative statistical analysis of carcinogenic and non carcinogenic effects of uranium in groundwater samples from different regions of Punjab

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ABSTRACT

LED Fluorimeter has been used for microanalysis of uranium concentration in groundwater samples collected from six districts of South west (SW), West (W) and North East (NE) Punjab, India. Average value of uranium content in water samples of SW Punjab is observed to be higher than WHO, USEPA recommended safe limit of $30 \mu\text{g l}^{-1}$ as well as AERB proposed limit of $60 \mu\text{g l}^{-1}$. Whereas, for W and NE region of Punjab, average level of uranium concentration was within AERB recommended limit of $60 \mu\text{g l}^{-1}$. Average value observed in SW Punjab is around 3-4 times the value observed in W Punjab, whereas its value is more than 17 times the average value observed in NE region of Punjab. Statistical analysis of carcinogenic as well as non carcinogenic risks due to uranium have been evaluated for each district.

Keywords: : Carcinogenic; LED Fluorimeter; Groundwater; Uranium

INTRODUCTION

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