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Speciation of vanadium in herbal plants from selected farms in the vicinity of vanadium plant

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Vanadium(V) is essential micronutrient for human health but at higher concentrations is toxic. Pentavalent vanadium, V(V) is regarded as carcinogenic agents. Hence, plants growing in the vicinity of vanadium plant may be contaminated with V and have adverse health effects on humans. Therefore, in the study, determination of V(V) in bark of the tree, buffalo thorn, *Aloe vera*, corn, rosemary, beetroot leave, lemon verbena, thyme and industrial dust were achieved. Results of determination carried out by Electrothermal atomic absorption spectrometry showed that dust sample collected from vanadium mine area have high concentrations of V(V) than other samples. It is essential to monitor the concentration of V(V) in the environment, to determine the risk of V(V) to human health.

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