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Baseline heavy metals in plant species from some industrial and rural areas: Carcinogenic and non-carcinogenic risk assessment

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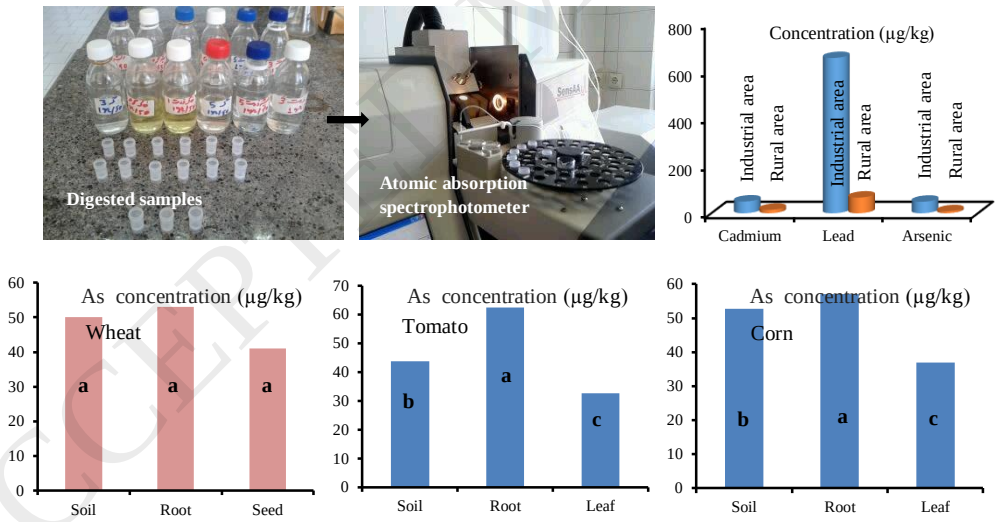
Graphical abstract



Abstract

This paper provides the first quantitative information on accumulation of cadmium, lead, and arsenic in the soil, leaf, and root of wheat (*Triticum aestivum L.)*, corn *(Zea Maize)*, and tomato *(Solanum lycopersicum*) in the downstream agricultural lands of an industrial area and agricultural lands of a rural area, Razavi Khorasan province, Iran. The results showed that there is a significant difference among the cadmium concentrations in the soil, root and leaf/seed in various plants (p=0.00 for wheat and corn and p=0.0004 for tomato). There was no significant