Determination of heavy metal(PB) content in mineral water produced in IRAN by Flameless Atomic Absorption Spectroscopy (FAAS)

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There are some limitations about quantity of heavy metals in food and drugs specially in mineral water. High concentrations of heavy metals in food, drugs and mineral water can cause peripheral neuropathy ,decrease in learning ability and memory ,nephritis, anemia and growth deficiency during a long time. So everybody who drinks mineral water with lead content more than maximum contaminant level is high risk of lead cumulation and chronic toxicity by it. As there is not process control during mineral water production, we decided to assay lead quantity in products of 14 mineral water companies of IRAN, by atomic absorption spectroscopy. The maximum average of lead content (0.0935±0.0018 ppm) was found in crystal mineral water and the minimum average of lead content(0.0222±0.00099 ppm) in Sepidan mineral water. Results showed that the mean lead content, in 14 types of mineral water were higher than approvable concentrations(≤0.0015 ppm) so none of these samples have a satisfactory lead concentration.

Table(6-2): Average of lead content in mineral water produced in IRAN per (mg/lit)ppm

Average of lead content in Mineral Water per (mg/lit)ppm	Mineral water`s name	NO
0.0222±0.00099*	SEPIDAN	1
0.0253±0.00148	DIMEH	2
0.0270±0.0	SILVANA	3
0.0323±0.0	VETOUS	4
0.0323±0.00388	DALAHOO	5
0.0421±0.0082	ANAHITA	6
0.0514±0.0035	DAMASH	7
0.0674±0.0025	DAMAVAND	8
0.0667±0.0019	RAZAVI	9
0.0772±0.0089	AB ALI	10
0.0753±0.0033	PLOUR	11
0.0813±0.0022	KOUHRANG	12
0.0929±0.0	JERINO	13
0.0935±0.0018	CRYSTAL	14

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Biography :

Rasoul Kazemi has graduated in pharmacy from azad university faculty of pharmacy in Tehran IRAN.he has experiences about analyzing heavy metals with atomic absorption set. He has built this analyse after some months hard working in azad university faculty of pharmacy in Tehran IRAN. This method and analysing will help to improve the quality of mineral water produced in IRAN.he has another experience about making Nano particle for loading drug into Nano partake in Zanjan faculty of pharmacy with proff. Mehrdad Hamidi.

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