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Heavy metals content in green algae *Ulva lactuca* from Dakar coast (Senegal)

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Abstract

Algae samples from Dakar coast (Senegal) were analysed using Inductively coupled plasma mass spectrometry (ICP-MS). Microwave acid digestion was also employed for metals (As, Mn, Ni, Co) determination. Dakar coast usually receives numerous domestic and industrial discharges without prior treatment. The contents of nickel were, in all cases, higher than other metals. However, green algae *Ulva lactuca* present themselves as effective bio-monitors when assessing marine aquatic pollution by contaminants in Dakar coast. Pearson's correlation shows that most of the four metals studied have significant correlation coefficients at the 0.01 level. ANOVA analysis allows concluding that significant differences were found between algae from different sampling points during different season. In all cases, the April samples have a higher content than those collected in January, August and December.

Keywords: *Ulva lactuca***,** Heavy metal, Dakar coast, pollution