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## ABSTRACT

Seaweeds collected from Lian, Batangas were analyzed for their metal contents using Differential Pulse Anodic Stripping Voltammetry (DPASV). Careful consideration of some factors were observed during collection time so that the determined metal contents of these seaweeds could be related to their ability to absorb these metals from the medium, seawater. Finally, the specificity/selectivity of the different seaweeds towards metal absorption was established.

DPASV, one of the most sensitive voltammetric methods, was employed in the analysis of Zn, Cd, Pb and Cu. Suitable working conditions were determined and then applied in the analysis. The supporting electrolyte that gave well-defined peaks for the metals analyzed was acetate buffer. The deposition potentials applied were -1.300 V for Zn, -1.000 V for Cd and Pb and -0.500 V for Cu. Deposition time of 3 minutes was used for Zn and 5 minutes for Cd, Pb and Cu. Gallium was used to prevent formation of Zn-Cu intermetallic compound. The peak potentials, characteristic of the species analyzed, were found to occur at -1.175 V for Zn, -0.768 V for Cd, -0.625 for Pb and -0.188 V for Cu.

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The metal contents of the seaweed samples were found to be present in ppm and sub-ppm level. Comparison of these metal contents led to the following:

First, metal absorption of seaweeds varies from species to species.

Second, for each seaweed analyzed, absorption varies with the kind of metal.

Third, species belonging to the *Halimeda* family have lower ability towards absorption of these metals as compared with other species analyzed in this study.

Lastly, The observed trend in the metal absorption of *Halymenia Durvillae* may mean that for this species absorption of metals Zn, Cd and Pb varies in direct proportion to the metal contents of its medium, and for Cu, accumulation and even concentration of this metal into the host's body may occur.

