

Characterization of the Potential Biosorbents, *Saraca Thaipingensis* and *Codiaeum Variegatum* Leaf Powder in terms of pH, moisture content and point zero charge

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ABSTRACT

S. thaipingensis and *C. variegatum* are plants which are commonly available in the INTI International University. The leaves of these plants have been proved to be a potential biosorbent for the removal of chromium(IV) from wastewater. This study shows, the moisture content, pH and point zero charge of the *S. thaipingensis* and *C. variegatum* leaf powder. The pH of the *S. thaipingensis* and *C. variegatum* are 6.58 ± 0.03 and 6.93 ± 0.03 respectively in which *S. thaipingensis* is only very slightly acidic than *C. variegatum*. The moisture content of *S. thaipingensis* is 5.65 ± 0.89 % and moisture content for *C. variegatum* is 9.14 ± 0.49 which means that *S. thaipingensis* will be the more preferred biosorbent as the moisture content will affect the adsorption capacity of the leaf powder. The point zero charge (PZC) of the *S. thaipingensis* and *C. variegatum* leaf powder were determined by a simplified mass potentiometric titration method. The point zero charge of *S. thaipingensis* is 4.67 ± 0.25 while the point zero charge of *C. variegatum* is 5.11 ± 0.17 . The results are useful for the development of using these leaf powders as biosorbent for heavy metal removal.