

## Chemical composition, proximate and phytochemical analysis of *Irvingia gabonensis* and *Irvingia wombolu* peels, seed coat, leaves and seeds

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**Abstract.** The study focused on the proximate, minerals and phytochemical analysis of the leaves, seeds, seed coats and peels of *Irvingia gabonensis* and *Irvingia wombolu* from Uli in Anambra State Nigeria. The minerals concentrations (Ca, Zn, Fe, Mg) were determined with atomic absorption spectrometer (AAS) while sodium was determined with flame photometer. The trend in mineral concentration was Mg > Na > Ca > Zn > Fe. Phytochemical analysis revealed the presence of alkaloids, flavonoids and saponins in both species. The proximate analysis showed that the carbohydrates contents in the leaves and seeds of *I. wombolu* were 51.7±1.3% and 57.6±0.31% respectively, while the moisture content of the peels was 34.0±0.20%. The results of this study showed that the leaves, seeds, seed coats and peels of the two *Irvingia* species are potential sources of food nutrients and phytochemicals, and therefore should be maximally utilized.

**Keywords:** *Irvingia* species; proximate analysis; mineral analysis; phytochemical analysis.

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