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AROMA PROPERTIES OF SELECTED LOCAL SPICES IN AKWA IBOM STATE OF NIGERIA

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ABSTRACT Some popular local spices in Akwa Ibom State of Nigeria were selected for the determination of properties responsible for their aroma and flavours, which make them so widely accepted in many dishes. These spices include *Ocimum basilicum* or Tea bush, *Piper guineense* or Guinea black pepper, *xylopia aethiopica* or Ethiopian pepper, *Tetrapleura tetraptera* or Aidan tree and *Blighia Unijugata* or onion tree. Essential oils and oleoresins, which characterize the aroma pungency of the spices, were extracted and the esters responsible for aroma and flavours were indentified with the use of UNICAM UV-VISIBLE SPECTROMETER v2.03. Maximum absorption at different wavelengths showed that *Piper Guineense* contains Quinoline, isoquinoline, Benzene and Nitrobenzene. Also, *Tetrapleura Tetraptera* contains Quinoline and Nitrobenzene. *Xylopia aethiopica* contains trans-stiibene, Diphenyl compound, pyridine or Nitrobenzene. Furthermore, other compounds such as tannin and total soluble oxalate were identified at lower levels in *Piper guineense* and *Tetrapleura tetreptera*. Lastly, these spices were found to be rich in macro elements such as sodium, magnesium, potassium, calcium, iron, copper, zinc, etc. Although rich in nutrients, the potential of these spices is not sufficiently used by local food industries to date.

Keywords: Potentials, Spices, Properties, flavors, aroma