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## Comparative Analysis of Polyphenolic and Antioxidant Constituents in Dried Seedlings and Seedless *Acacia nilotica* Fruits (Article)

AbdErahman, A.<sup>a</sup>, Abayomi, O.O.<sup>b</sup> [✉](#), Ahmed, A.E.E.<sup>c</sup>, Nour, A.H.<sup>b</sup> [✉](#), Yunus, R.M.<sup>b</sup>, Ibrahim, G.M.<sup>a</sup>, Kabbashi, N.A.<sup>d</sup> [✉](#)<sup>a</sup>Faculty of Science and Technology, Omdurman Islamic University, Omdurman, Sudan<sup>b</sup>Faculty of Chemical and Natural Resources Engineering, Universiti Malaysia Pahang, Gambang, Malaysia<sup>c</sup>Faculty of Animal Production, Bahri University, Bahri, Sudan[View additional affiliations](#) [v](#)

### Abstract

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The phenolic and antioxidant constituents in *Acacia nilotica* fruits have become an important source of medicinal and therapeutic benefit with powerful biological properties. This study investigated the phenolic content and antioxidant capacity of powdered *Acacia* fruits with seeds and without seeds. The phenolic content and antioxidant capacities in them were determined using Folin–Ciocalteu and DPPH free radical-scavenging assays. The total phenolic and antioxidants of *A. nilotica* with seeds were spectrophotometrically determined to be 47.61 and 6.18% greater than when the seeds were removed from the dried fruits, respectively. The LC–MS/QTOF analysis shows the presence of 282 and 214 phenolic compounds in the methanol extracts of *A. nilotica* with seeds and without seeds, respectively. The present study, therefore, revealed that dried *A. nilotica* fruits with seeds have higher total phenolic content, antioxidant capacity, and bioactive constituents, which indicated that they have more medicinal value than fruits without seeds. © 2018, The Nonferrous Metals Society of China.

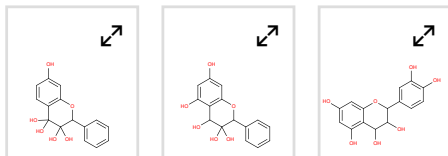
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[Acacia nilotica](#) [DPPH antioxidant capacity](#) [Liquid chromatography–mass spectrometry](#) [Total phenolic content](#)

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
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