

Rotenoids from *Millettia* Species–Structure, Stereochemistry and Biological Activity

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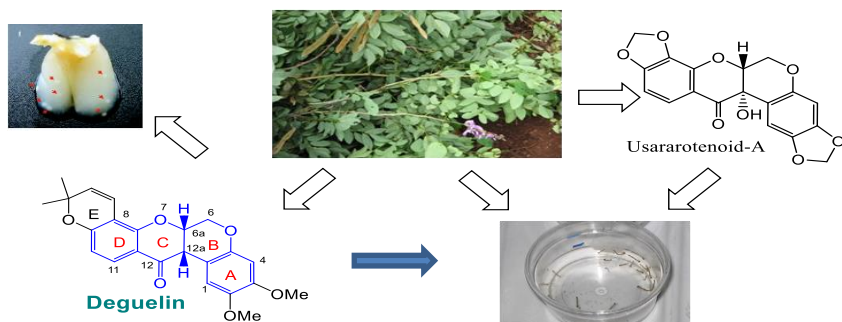
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Abstract

Rotenoids are biogenetically advanced isoflavonoid derivatives having at least four fused rings. These compounds mainly occur in some genera of the family Leguminosae such as *Derris*, *Lonchocarpus*, *Millettia* and *Tephrosia*. The insecticidal activities of rotenoids, especially of rotenone are well documented. In fact some *Derris* and *Lonchocarpus* species are cultivated as commercial sources of insecticidal rotenoids. Recently, the antimicrobial, antiplasmodial and anticancer properties of rotenoids have been published. Particularly the anticancer activity of rotenoids has gained much interest. The biological activities are dependent on the nature of substituents and position of substituents and configuration at the stereocentres. Thus the proper characterization of such compounds including stereostructures is very important.

Over the years we have isolated and characterized a number of rotenoid derivatives, some of which having unique structures (e.g. usararotenoid A). In this presentation the structure, stereochemistry and biological activities of rotenoids from East African plants will be presented.



References

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