

ABSTRACT

Knipholone, the first 4 - arylanthraquinone was discovered from the stem of *Kniphofia foliosa* (Asphodelaceae) in 1984 ¹ . Since then a number of 4 - arylanthraquinones have been isolated from this plant ^{2,3} and other members of the Asphodelaceae, namely from *Bulbine* ⁴ and from *Bulbinella* species ⁵ . Compounds belonging to this class of anthraquinones have rotationally hindered biaryl linkages. The absolute configuration of knipholone and the other members was established by the use of advanced quantum chemical CD calculations ⁶ . Recently the first dimeric arylanthraquinones, named joziknipholones A and B, have been discovered from the roots of *Bulbine frutescens* ⁷ . We have now reinvestigated *Kniphofia foliosa* and *Bulbine frutescens* and identified novel phenylanthraquinones, including joziknipholone A and knipholone cyclooxanthrone, and anthraquinone dimers with remarkable biological activities ^{8,9} . The roots of *Bulbine frutescens* also gave a new xanthone, 8 - hydroxy - 6 - methylxanthone - 1 - carboxylic acid, whose structure was confirmed through X - ray crystallography and then used as a reference to propose the revision of six seco - anthraquinones into xanthenes ¹⁰ . The structures, antiprotozoal activities and cytotoxicity of these compounds will be discussed.