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Natural Products from Mangrove Plants and Their Bioactivities

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Mangrove plants are a large group of different salt tolerant plants growing in tropical and subtropical intertidal estuarine zones. We will introduce mangrove resources worldwide, and then focus on new limonoids from mangrove plants of the genus *Xylocarpus*. Limonoids, derived from a precursor with a 4,4,8-trimethyl-17-furanylsteroid skeleton, are tetranortriterpenoids with a beta-furyl ring substituent located at C-17. During the recent ten years, my group has identified more than 100 new limonoids from the *Xylocarpus* plants collected in south China and India. The structures of these compounds were elucidated by NMR spectroscopic method combined with single-crystal X-ray diffraction technique. The absolute configurations of limonoids with new carbon skeletons (Fig. 1) were established by circular dichroism quantum chemical calculations. Antifeedant, insecticidal, and anti-tumor activities of some limonoids were reported.

Keywords: Mangrove, *Xylocarpus*, Limonoids, Bioactivity.