

**Revealing the chemical diversity of plants – New alkaloids from
*Tabernaemontana peduncularis***

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As plants cannot run away from herbivores they have developed sophisticated chemical defense strategies. The natural products involved therein are evolutionary designed to exhibit strong biological activity and are therefore a great source for drug discovery candidates. As a matter of fact, many common drugs are derived from natural products.

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We have isolated several interesting new alkaloids from the leaves and stem bark of *Tabernaemontana peduncularis*, a largely unexplored species of the Apocynaceae plant family. The plants were collected in the Ton Tae national park in Thailand. Structure elucidation by NMR resulted in the identification of several new iboga-type alkaloids, which possess remarkable insecticidal activity. The molecules show some molecular dynamics with similar structures. Furthermore, the substances were highly unstable leading to impurities that could not be separated. Additionally, we isolated a javaniside derivative containing an uronic acid as glycoside. Although glucuronidation of molecules is a relatively common process in animals, such glycosides are rarely found in plants.

[1] Shen, B. *Cell* **2015**, *163*, 1297-1300.