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## Novel bufadienolides with rearranged skeletons from traditional Chinese medicine ChanSu

**Tian Hai-Yan**  
Jinan University, China

Toad venom, locally called ChanSu, is the secretion of the postauricular and skin glands of toads *Bufo bufo gargarizans* Cantor or *B. melanostictus* Schneider, has been widely used as a traditional Chinese medicine in the treatment of superficial infection, odontalgia and skin cancer, and is also useful as a chemical weapon against the natural enemies of toads. During our system chemical investigation of ChanSu, three novel rearranged bufadienolides, bufogargarizins A-C (1-3) were isolated from the CH<sub>2</sub>Cl<sub>2</sub> extraction of ChanSu. Their structures with absolute configurations were elucidated by spectroscopic analysis, single crystal X-ray diffraction, and computational calculations. Compounds 1, 2 and 3 had unprecedented 7/5/6/5/6, 5/7/6/5/6 and 6/7/6/5/6 ring systems, respectively, instead of the 6/6/6/5/6 skeleton presented in common bufadienolides. Our proposed biosynthetic pathways as well as the identification of the key intermediates supported that they were biosynthesized from the normal bufadienolides.

### Biography

Tian Hai-Yan has completed her PhD from China Pharmaceutical University and Postdoctoral studies from Jinan University College of Pharmacy. Presently, she is an Associate Professor of Jinan University. She has published more than 40 papers in reputed journals including *Chemistry - A European Journal*, *Journal of Natural Products*, etc. She has held two national funds and is the Obtainer of the Special Support Young talent Plan of Guangdong Province, China.

[tianhaiyan1982@163.com](mailto:tianhaiyan1982@163.com)

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