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Flavonoids from *Suaeda glauca* (Bunge) Bunge (Chenopodiaceae)

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The terrestrial halophytes, *Suaeda glauca*, which was evaluated as one of the strongest salt tolerant higher plant genus in the world, grew in an extreme coastal desert environment, including saline land, salt lake and intertidal zone. Extreme environment induced this genus to biosynthesize the necessary substances to establish their chemical defensive systems. The evolved chemical defensive strategy provided us a new approach in searching for potential bioactive molecules from natural sources. In order to exploit new molecules with agricultural bioactivity, *Suaeda glauca* was selected for isolation of three new flavonoids, 5,6,8-trimethoxy-7-hydroxycoumaronochromone (1), 7,2'-dihydroxy-5,6-dimethoxyisoflavone (2), 6,2'-dihydroxy-5,7-dimethoxyisoflavanone (3), together with fifteen known flavonoids (4-18) from the ethanol extracts of this whole plants. The structures of new compounds were identified on the basis of MS and 1D and 2D NMR spectroscopic analysis and compound 1 was confirmed by X-ray crystallographic analysis. The known flavonoids structures established based on chemical and spectral methods. All compounds were isolated for the first time from Chenopodiaceae. Based on the previous studies, this chemical composition for *Suaeda glauca* is in accordance with the chemical profile of other species of *Suaeda* Forsk. ex Scop., and flavonoids may have chemotaxonomic significance within this genus.

Biography

Xu Feng is a Professor and Vice President of Institute of Botany, Jiangsu Province and Chinese Academy of Sciences. He has obtained his Bachelor's degree from Nanjing University in 1984 and PhD from Nanjing Agricultural University in 2006. His research interests mainly focus on natural resources and their chemistry in Chinese medicinal materials and their bioactive constituents. He has published over 140 academic papers and 2 academic books. He is also the holder of 15 national patents of invention.

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