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Highly Efficient Synthesis of Bioactive Oleanane-type Saponins

Jing-Jing Sui,[a] Wen-Hui Zhou,[b] De-Yong Liu,[a] Ming-Qing Li[b]and Jian-Song Sun[a,*]

[a]*The National Research Centre for Carbohydrate Synthesis, Jiangxi Normal University 99 Ziyang Avenue, Nanchang 330022, China*

jssun@jxnu.edu.cn

[b] *Laboratory for Reproductive Immunology, Hospital of Obstetrics and Gynecology, Fudan University Shanghai Medical College, Shanghai 200011, China*

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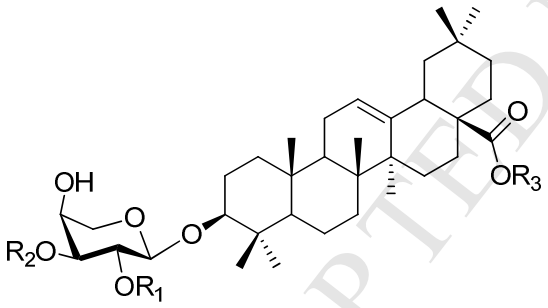

1 $R_1 = R_2 = R_3 = H$
2 (Guaianin N) R_2 = β-D-Glc*p*, $R_1 = R_3 = H$
3 (Elatoside E) R_1 = β-D-Xyl*p*, R_2 = β-D-Glc*p*, $R_3 = H$
4 (Elatoside F) R_1 = β-D-Xyl*p*, R_2 = β-D-Glc*p*, R_3 = β-D-Glc*p*

Abstract:

Leveraging on Schmidt glycosylation method, a highly efficient approach to obtain oleanane-type triterpene saponins was fixed, whereby oleanyl mono-, disaccharide (guaianin N), trisaccharide (elatoside E), as well as tetrasaccharide (elatoside F) were obtained efficiently. The synthetic investigation has resulted in the discovery of the