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COMPOSITAE

QUERCETIN 3- β -GLUCOSIDE FROM *AMBROSIA TRIFIDA*

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Plant. *Ambrosia trifida*.

Flowers. Quercetin 3-glucoside (identified by m.p., u.v., NMR and chromatographic comparison with authentic specimen).

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FAGACEAE

BRANCHED NONALACTONES FROM SOME *QUERCUS* SPECIES

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Abstract—Two diastereomers of 3-methyl-4-hydroxy caprylic acid γ -lactone were isolated from the wood of three *Quercus* species.

TWO DIASTEREOMERS of a branched nonalactone were isolated together with γ -nonalactone and eugenol from the woods of *Quercus mongolica* Fisch. var *grosseserrata* Rehd. et Wils., *Q. serrata* Thunb. and a white oak* (Fagaceae).

Both compounds, which we named *Quercus* lactones-a and -b, exhibited almost the same i.r. spectra with absorption at 1770 cm^{-1} indicating their γ -lactonic function. The mass spectra showed parent peaks at m/e 156 and base peaks at m/e 99. The NMR spectrum (in CDCl_3) disclosed signals at δ 0.92 (3H, s, CH_3 —), 1.11 (3H, d, $J = 6\text{ Hz}$, CH_3 —CH—), and 3.88 (1H, m, $=\text{CH}$ —O—CO—) for *Quercus* lactone-a and at δ 0.92 (3H, s, CH_3 —), 1.00 (3H, d, $J = 7\text{ Hz}$, CH_3 —CH—), and 4.37 (1H, m, $=\text{CH}$ —O—CO—) for *Quercus* lactone-b. These spectral data suggest that both compounds have structure (I).

* 'White oak' is a general name for the group of deciduous oaks grown in North America and could refer to *Q. alba*, *Q. macrocarpa*, *Q. montana*, *Q. muehlenbergii*, *Q. virginiana*, *Q. lyrata*, *Q. stellata* or *Q. prinus*.