for the resultant ternaries was not possible. The comparative magnitudes of B_{123}, C_{123}, etc. in Table IV, where only the deviations from Equation 3 were to be fitted, indicate that a rather large number of terms might be needed in an effective power series for these ternary systems.

The present approach to an analytical function for the ternary data would be quite unwieldy without the use of a computer. For example, the determination of an unknown composition by locating the intersection of two functions of the form of Equation 3a or 3b for two different physical properties would require extensive iterative procedures.

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NOMENCLATURE

A_{ij} = function defined in Equation 2
A_{ijk} = function defined in Equation 4
B_{ij}, C_{ij}, D_{ij} = constants in Equation 2
$B_{ijk}, C_{ijk}, D_{ijk}, E_{ijk}, F_{ijk}, G_{ijk}$ = constants in Equation 4
n = refractive index
n_i = refractive index of pure component i
x_i = mole fraction of component i

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Derivatives of 1-Benzoyl-1,2-dihydroquinaldic Acid (Reissert Acid)

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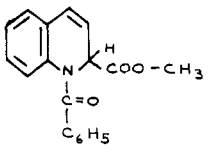
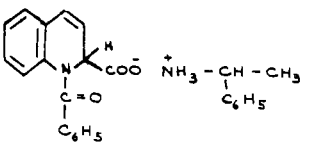
REISSERT ACID (1-benzoyl-1,2-dihydroquinaldic acid) was prepared by the method of Collins and Henshall (*1*), during an investigation of the chemistry of Reissert compounds. Two derivatives of this acid were prepared—namely, methyl 1-benzoyl-1,2-dihydroquinaldate (I) and *d*-α-methylbenzylammonium 1-benzoyl-1,2-dihydroquinaldate (II).



I



II

The methyl ester, I, was obtained as a crystalline solid by treating a methanol solution of 1-benzoyl-1,2-dihydroquinaldic acid with an excess of diazomethane in ether. The crystalline ammonium salt, II, was obtained by the reaction of 1-benzoyl-1,2-dihydroquinaldic acid with *d*-α-phenylethylamine in anhydrous acetone.

EXPERIMENTAL

Elemental analyses were carried out by Schwarzkopf Microanalytical Laboratory, Woodside, N.Y. All melting points are corrected.

Methyl 1-Benzoyl-1,2-dihydroquinaldate. To a solution of 3.0 grams (0.01 mole) of 1-benzoyl-1,2-dihydroquinaldic acid in 25 ml. of absolute methanol cooled in an ice bath, an excess, as noted by the yellow color of the solution, of an ice cold ether solution of freshly prepared diazomethane was added slowly (*2*). When the evolution of nitrogen had ceased, the solution was warmed to room temperature and the solvents distilled, the latter portion under reduced pressure. This gave 2.1 grams (67.1%) of a light yellow solid, m.p. 115–118° C. Recrystallization from methanol gave a white crystalline solid, m.p. 118–119° C.

Anal. Calcd. for $C_{18}H_{15}NO_3$: C, 73.72; H, 5.15; N, 4.77. Found: C, 73.82; H, 5.33; N, 5.00.

***d*-α-Methylbenzylammonium 1-Benzyol-1,2-dihydroquinaldate.** A solution of 0.5 gram (0.0017 mole) of 1-benzoyl-1,2-dihydroquinaldic acid in 5 ml. of absolute acetone was mixed with 0.21 gram (0.0017 mole) of *d*-α-phenylethylamine (*3*). The solution was warmed on a steam bath for one to two minutes and cooled. In approximately one-half hour, a white solid precipitated from solution. This was filtered and washed with acetone, m.p. 168–169.6° C.

Anal. Calcd. for $C_{25}H_{24}N_2O_3$: C, 75.03; H, 6.04; N, 7.00. Found: C, 75.15; H, 6.06; N, 7.24.

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