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The combined alkaloids of *B. sempervirens* consist of a complex mixture of bases which is difficult to separate into its individual components by the usual methods. In view of this, we have separated the combined bases with respect to their basicities in an apparatus for polybuffer distribution [1].

The combined alkaloids (120 g) were dissolved in three liters of chloroform and passed through a semiautomatic apparatus for polybuffer distribution. At first the 2l columns were filled with water and then with phosphate buffer solutions having different pH values (from 6.0 to 2.5), the volume in each column being 1.5 liter. The solution of the mixture and the chloroform was passed through the apparatus at the rate of 1000 ml/h. After the passage of the solution of the combined bases through all the columns, they were washed with pure chloroform.

After the end of the distribution process, the buffer solutions were made alkaline with 25% ammonia and extracted with benzene. The solutions were then distilled to dryness. The following fractions were obtained: I (distilled water) 17.36 g; II (pH 6.0) 34.7 g; III (pH 4.0) 13.84 g; IV (pH 2.5) 7.17 g; V (5% H₂SO₄) 7.6 g; and VI (chloroform) 15.6 g.

Each fraction separately was chromatographed on a column of alumina (activity grade II). The compositions of the fractions were checked by TLC on silica gel-gypsum (9:1) in the butan-1-ol-acetic acid-water (10:1:3) system.

Elution of the aqueous fraction with chloroform-ethanol (9:1) yielded a new base, C₂₉H₅₀N₂O, with mp 230-232°C, [α]_D +29.4°, M⁺ 442.

The elution with ether-ethanol in various ratios of fractions II-IV also yielded bases; cyclobuxine-D [2], cyclovirobuxine-D [3], cycloprotobuxine-D [4], cycloprotobuxine-A [5], and noncharacterized alkaloids with mp 185-187°C, 211-213°C, 208-210°C, and 221-224°C.

These bases were identified by comparing their IR, NMR, and mass spectra melting points with those for known alkaloids.

The separation of the combined alkaloids is continuing.

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