

8.5; analysis: C, 54.56; H, 5.34; N, 5.77; Cl, 7.16; O, 21.17 (by diff.); mol. wt., 508 (3).

Aureomycin forms a hydrochloride with these properties: decomposes above 210° C; $[\alpha]_D^{25}$, -240.0 (water); approx. solubility in water, 14 mg/ml at 25° C; pH of aqueous solution, 2.8-2.9; analysis: C, 51.84; H, 5.24; N, 5.46; total Cl, 13.27; ionic Cl, 6.69; O, 24.19 (by diff.). The rhomboid crystals have a refractive index of 1.700 ± 0.005 . The acute angle is $80 \pm 5^\circ$.²

In 0.1 N hydrochloric acid, aureomycin shows absorption maxima at 230, 262.5, and 367.5 mμ. In 0.1 N sodium hydroxide the maxima are at 255, 285, and 345 mμ.

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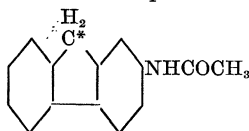
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2-Acetylamino-9-C¹⁴-Fluorene¹

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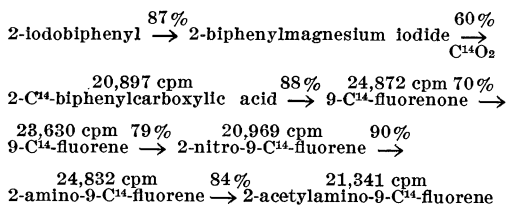
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Since it was demonstrated by Wilson, DeEds and Cox (4) that 2-acetylamino fluorene causes a wide variety of cancer in rats, this compound has become of increasing importance in experimental cancer research (1-4). Present chemical methods are successful in accounting for only about one-third of the substance administered (3). With the hope of completely elucidating the mode of action of 2-acetylamino fluorene we have synthesized it with radioactive carbon-14 in the 9-position in the molecule.



Measurements were made with a Geiger tube having a window 4-5 mg/cm² and at a distance of 1½".

The following equations give the yields and number of counts per minute at each step for a 22 mg/cm² sample from 2 mc of BaC¹⁴O₃ and 11.5 gm of 2-iodobiphenyl.



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The metabolism of the radioactive compound is being studied by H. P. Morris, of the National Cancer Institute, and the results will be reported in a subsequent publication.

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Experiments in Crossing

Aedes (Stegomyia) aegypti Linnaeus and *Aedes (Stegomyia) albopictus* Skuse¹

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In 1937, Toumanoff (4) reported a series of crosses made between the two species of mosquitoes, *Aedes aegypti* and *Aedes albopictus*. In two trials he had two successful crosses of albopictus females and aegypti males. The offspring resembled albopictus. The F₂, F₃, and F₄ generations from these crosses also resembled albopictus. In four trials with aegypti females and albopictus males he had only one success, the offspring and F₂ generation resembling aegypti. Later (5) he reported five more crosses of albopictus females and aegypti males, two of which were successful, the F₁ again resembling the female parent. Hoang-Tieh-Try (2) also reported four attempts at crossing albopictus females and aegypti males; two of the trials were successful, the F₁ resembling albopictus. He did not succeed in getting an F₂ generation. Edwards (1) comments on this work, suggesting the desirability of more detailed morphological studies of the crosses.

In 1944, Johannes Bauer tried to confirm this work, using colonies of *A. aegypti* and *A. albopictus* which had been maintained in the New York Laboratories of the International Health Division of The Rockefeller Foundation for several years. The origin of these colonies is not known. It was considered possible that, in the course of innumerable transfers of eggs and larvae, some mixing of the two species might well have occurred from time to time. Evidence of this was obtained, for upon examination of a large number of specimens from the cage of either colony, an occasional member of the other species would be found. Consequently, it can be suggested that neither of the lines was necessarily "pure." After preliminary trials, Dr. Bauer turned the project over to the

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² The authors were formerly with NAMRU No. 2.