

in the *Proceedings of the National Academy of Sciences*, **16**, 215 (1930), I described a method for preparing an optically active triarylcarbinol in the form of its thioglycolic acid derivative. *l*-Phenylbiphenyl- α -naphthylmethylthioglycolic acid, $(C_6H_5)(C_6H_5C_6H_4)(C_{10}H_7)CSCH_2COOH$, was prepared and resolved by means of its brucine salt. It was found to have the specific rotation in carbon tetrachloride, $[\alpha]_D^{20} -13.63^\circ$; in ether, $[\alpha]_D^{20} -12.93^\circ$. The dextro modification obtained by working up the residues from the fractional crystallization of the brucine salt gave an acid with $[\alpha]_D^{20} +10.6^\circ$ in ether.

Many experiments have been carried out on these compounds in order to convert them into the corresponding optically active triarylcarbinols. This has finally been accomplished. Under proper conditions the levo modification of the acid gives a *d*-phenylbiphenyl- α -naphthylcarbinol of the specific rotation in carbon tetrachloride, $[\alpha]_D^{20} +5.8^\circ$. The dextro modification of the acid yields a levorotatory-carbinol, $[\alpha]_D^{20} -5.4^\circ$. The corresponding ethyl ethers have been prepared. The levo acid produces a levorotatory ether, $(C_6H_5)(C_6H_5C_6H_4)(C_{10}H_7)C-OC_2H_5$, $[\alpha]_D^{20} -22.7^\circ$ in ether. The dextro acid gives a dextrorotatory ether, $[\alpha]_D^{20} +21.6^\circ$. Other asymmetrically substituted tertiary alcohols are being prepared in order to study their possibilities of resolution by this method. Further investigations on the above optically active compounds are in progress with a view of answering the question of the spatial arrangement of the valences of the trivalent carbon atom. At present this is completely unexplained, and has been but superficially investigated. A report of this work will be published later.

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RECEIVED MARCH 9, 1932
PUBLISHED APRIL 6, 1932

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BETA-SUBSTITUTED FURANS

Sir:

Absolute orientation studies of nuclear substituted furans are circumscribed by the paucity of simple *beta*-substituted furans, which are uncommonly difficult of synthesis. 3-Furancarboxylic acid is now accessible by the preferential pyrolytic decarboxylation of 2,4-furandicarboxylic acid. Although the halogen in 3-iodofuran is extremely inert, particularly toward magnesium and sodium, 2,5-dimethyl-3-iodofuran readily forms an organomagnesium iodide. The iodofurans were prepared from the furan-mercurials.

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RECEIVED MARCH 10, 1932
PUBLISHED APRIL 6, 1932

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