

or cysteine-sulfonic acid had minor but distinct effect on this ratio.

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### Synthesis and Metabolism of 2,2,17,17-Tetramethyloctadecanoic Acid

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Recently 2,2-dimethyl [1-<sup>14</sup>C] octadecanoic acid <sup>1</sup> and 2-methyl [1-<sup>14</sup>C] octadecanoic acid <sup>2</sup> have been prepared and administered to adult white rats. According to the activity recovered in the expired carbon dioxide, 2-methyloctadecanoic acid is metabolized in the same way as stearic acid. 2,2-Dimethyl [1-<sup>14</sup>C] octadecanoic acid was well absorbed, but the isotope was mainly excreted in the urine as 2,2-dimethyl [1-<sup>14</sup>C] adipic acid <sup>1</sup>.

We have now prepared 2,2,17,17-tetramethyl [1-<sup>14</sup>C] octadecanoic acid from 15,15-dimethylhexadecanoic acid and methyl hydrogen 2,2-dimethyl [1-<sup>14</sup>C] succinate (3-[3<sup>1-14</sup>C] carbomethoxy-3-methylbutyric acid) by anodic synthesis. M.p. 46.6°–46.8°. (Found: C 77.5; H 12.9; equiv. wt. 341, Calc. for C<sub>22</sub>H<sub>44</sub>O<sub>2</sub> (340.6): C 77.6; H 13.0; equiv. wt. 341.)

When tetramethyl [1-<sup>14</sup>C] octadecanoic acid was fed to white rats no activity could be found in the urine.

The different metabolism of these branched fatty acids will be discussed.

1. Bergström, S., Borgström, B., Tryding, N. and Westöö, G. *Biochem. J.* *In press.*
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### Naturally Occurring *iso*Thiocyanates and their Possible Relationship with $\alpha$ -Amino Acids

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Systematic paperchromatographic investigations <sup>1</sup> of seed and fresh parts of more than one hundred plant species, mainly belonging to the family *Cruciferae*, have indicated the presence of about 10 different, glucosidically bound, volatile *isothiocyanates*. In addition to the previously known allyl, *sec*-butyl, benzyl and  $\beta$ -phenylethyl *isothiocyanates*, the occurrence of 3-butenyl <sup>2</sup>, *isopropyl* <sup>3</sup> and ethyl <sup>4</sup> *isothiocyanate* in certain species has been definitely established in this laboratory. Three or four spots have been observed attributable to *isothiocyanates* of so far unrevealed structure.

Chemical similarities between naturally occurring *isothiocyanates* and the common  $\alpha$ -amino acids suggest a possible biochemical relationship which will be briefly discussed.

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