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Biochemical Recovery from Anoxia

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though he made no reference to the earlier work of Brenans. Blicke and Smith[4] in 1928 modified the Brenans procedure for preparation of p-iodoanisole for which they claimed more desirable results.

As a result of our experience, we have adopted a procedure more nearly like that of Brenans, giving a better yield and product than would appear from his report, and less involved procedure than that of Blicke and Smith. One mol quantity of anisole is dissolved in about four weight quantities of absolute ethanol, three fourths mol quantity of commercial mercuric oxide is added and slightly more than one mol quantity of iodine introduced in five portions with mechanical shaking between portions until the color of iodine nearly vanished. Finally the whole mixture is shaken for about eight hours on a mechanical shaker. The undissolved mercury compounds are filtered, washed with ethanol, the ethanol removed by distillation, the residual oil dissolved in ether and filtered again if necessary, the ether solution washed with a potassium iodide solution, the ether evaporated, the residual oil steam distilled, and the organic part of distillate crystallized from about 85 per cent ethanol. A yield of 85 per cent, melting at 50.5-51.5 (corrected), was obtained.

Some speculation with reference to the role of HgO as a catalyst for this iodination is given.

4 Blicke and Smith, J. Am. Chem. Soc. 50, 1229-30 (1928).

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BIOCHEMICAL RECOVERY FROM ANOXIA

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Confinement for 24 hours in pure nitrogen produces a great rise in blood sugar and lactate and fall in blood pH and bicarbonate, and tissue glycogen, in turtles. Recovery follows return to room air. pH and bicarbonate rise to or slightly above normal within 24 hours. Lactate falls markedly in the first 24 hours and is almost down to normal after 2 days; the sugar level falls more slowly but is normal within four days. Glycogen recovery is more rapid in liver than heart; muscle glycogen appears to rise above the pre-anoxic level.

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OIL DISCOVERY EXCITEMENT IN IOWA

CHARLES KEYES

Nearly a quarter of a century ago, I ventured to present a paper before this Academy in which was pointed out a number of definite geological structures that could serve as oil reservoirs, and that were the most likely belts wherein to make practical tests for natural gas and rock-oil, in this state and Missouri. At the time, and for long after, oil men were so engaged in exploration of the then new oil-fields of Oklahoma, east Texas and Louisiana that little attention could be given to new explorations elsewhere. Recently, certain oil companies have been attracted to the Iowa and Missouri fields. As one of the best informed oil engineers stated, a little while ago, the remarkable interest recently displayed concerning the possible occurence of natural gas and oil, in commercial quantities, in south-western Iowa and north-western Missouri, has resulted in one of the most active leasing campaigns ever known in the history of the oil industry. Already it is estimated that between 3,000,000 and 4,000,000 acres of land are now taken up under lease for gas and oil.

So, Iowa may soon become important as an oil and gas producer as she has with her great coal deposits during the last 50 years.

DES MOINES, IOWA.

INSOLUBLE RESIDUE OF THE MISSOURI AND VIRGIL SERIES IN SOUTHWESTERN IOWA

EDWIN H. WENBERG

The younger pennsylvanian strata of Iowa can be correlated largely on the basis of their insoluble residues. Samples were collected from exposed strata in southwestern Iowa, and adjacent parts of Missouri and Nebraska. After digestion in cold dilute muriatic acid the residues were separated by elutriation into two portions, one consisting of fragments and aggregates larger than