as to obtain the complexes consisting of the sugar and bases. Such complexes are known by the name "nucleosides."

In the development of the theory of structure of the plant nucleic acid the nucleosides played a very important part inasmuch as they made it possible, on one hand, to explain the order of union between the individual components of the nucleotides, and, on the other, they afforded a way of isolating in pure state the sugar entering in the structure of the plant nucleic acid. It is evident that the isolation of the nucleosides from the thymonucleic acid will play an analogous rôle in the development of the theory of the structure of thymonucleic acid.

One of these nucleosides has now been isolated in perfectly crystalline form, free from mineral impurities. It is optically active; on hydrolysis it gives rise to a reducing substance and to the base guanine. The reducing substance does not form an osazone under the usual conditions. With Kiliani's reagent the substance gives a greenish-blue coloration which on standing turns to purple. The color is not identical with that described by Kiliani for his desoxysugar. The composition of the nucleoside, however, suggests the possibility of the sugar being either an anhydro- or a desoxyhexose. The theory of the guanine nucleoside of an anhydrohexose requires the following composition: C = 44.74, H = 4.41, N = 23.73. The analytical results found for our substance are C = 44.43, H = 4.41, N = 24.65. The slight discrepancies between the theoretical and the found values are easily explained by a slight admixture of the free base, inasmuch as it is known that nucleosides have a tendency to form complex salts with the free bases.

We request workers in the field of nucleic acids to leave for some time to come further work on this substance to our laboratory.

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*THE SPECTRUM OF IONIZED XENON (Xe_{II})

EXTRAPOLATING the separation of the lowest doublet ($^2P'_{2,1}$) of the spark spectra of the preceding rare gases, arising from the s^2p^5 electron configuration, has made possible the estimation of this separation in the first spark spectrum of xenon. The data of Abbink and Dorgelo[1] in the Schumann region have been examined and the doublet separation has been found to be 9621 wave-number units. The most probable classification of the combinations in this region of the spectrum is as follows:

Combination	λ	ν
$(s^2p^5)^2P_2' - (s^2p^4 \cdot 4s)^2P_1$	824.83	121237
$(s^2p^5)^2P_2' - (s^2p^4 \cdot 4s)^2P_2$	854.71	116999
$(s^2p^5)^2P_1' - (s^2p^4 \cdot 4s)^2P_1$	895.92	111617
$(s^2p^5)^2P_1' - (s^2p^4 \cdot 4s)^2P_2$	931.25	107383
$(s^2p^5)^2P_2' - (s^2p^4 \cdot 4s)^4P_1$	1003.36	99665
$(s^2p^5)^2P_2' - (s^2p^4 \cdot 4s)^4P_2$	1051.93	95063
$(s^2p^5)^2P_2' - (s^2p^4 \cdot 4s)^4P_3$	1100.46	90841
$(s^2p^5)^2P_1' - (s^2p^4 \cdot 4s)^4P_1$	1110.62	90039
$(s^2p^5)^2P_1' - (s^2p^4 \cdot 4s)^4P_2$	1170.43	85439

There is some evidence of other combinations both in this region and in the visible spectrum. The interval between the terms tentatively named ^4P and ^2P is abnormally large, and, although the identification of the former is fairly certain, the final interpretation of the latter is reserved until further data are available. Work is now in progress on a complete description and classification of the spectra of xenon. The authors are expecting to make a further report as soon as the investigation can be completed.

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THYROID-FED RATS AND HIGH ROOM TEMPERATURES[1]

DURING the progress of some experimental work on the effects of feeding desiccated thyroid glands upon the reproduction and lactation of the white rat, the results of which will be published in another journal, one experiment was terminated suddenly when all the thyroid-fed rats died as the result of room temperatures of 88° and 92° F.

A search through the available literature showed that Korenchevsky[2] had reported that "after long excessive thyroid feeding, warming may even be followed by a lethal overheating with a rise of body temperature to 43.5° C."

In view of the fact that 92° F. (33° C.) is considerably less than Korenchevsky's lethal temperature of 43.5° C., it was thought that it would be worth while to publish the following report at the present time.

We had found that, if the dosage of desiccated thyroid was increased a definite amount each time a female rat gained twenty-five grams in body weight, many of her litters were born dead and normal lactation was so interfered with that many or all

* Publication approved by the Director of the Bureau of Standards of the U. S. Department of Commerce.

1 J. H. Abbink and H. B. Dorgelo, *Zeits. f. Physik*, 47, 221 (1928).

1 This research was aided in part by a grant from the Committee on Problems of Sex of the National Research Council.

2 V. Korenchevsky, *Journ. Path. and Bact.* 29: 461–472, 1926.