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**Modification of Garrod's Method for Preparation of Homogentisic Acid from Urine.**

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The basis of the methods now in use for the preparation of homogentisic acid from urine is that described by Garrod.<sup>1</sup> The urine is heated to boiling and 5 to 6 gm. neutral lead acetate are added for each 100 cc. of urine. As soon as the acetate is dissolved, the bulky gray precipitate which forms is removed by filtration and the filtrate is allowed to stand in a cool place, during which period the lead homogentisate deposits as acidular crystals. Garrod discusses the possibility of increasing the yield by the use of basic instead of neutral lead acetate. In the two cases studied by him the use of basic lead acetate did not increase the yield.

In the following modification of his procedure the pH of the urine is adjusted to the point at which lead homogentisate just fails to precipitate from the solution: Neutral lead acetate is added to the boiling urine, the precipitate filtered and the pH of the hot filtrate adjusted to about 5.6 with  $\text{NH}_4\text{OH}$ . At this pH the filtrate becomes faintly cloudy and on cooling all of the lead homogentisate crystallizes out. The lead salt is recrystallized once from hot water in the presence of an excess of lead acetate and with the pH again adjusted to 5.6. The free homogentisic acid is prepared by decomposing the lead salt with  $\text{H}_2\text{S}$ , concentrating the solution to a thick syrup under reduced pressure in an atmosphere of hydrogen, and saturating the concentrated solution with  $\text{SO}_2$ . On cooling the homogentisic acid rapidly crystallizes out.

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<sup>1</sup> Garrod, A. E., *J. Physiol.*, 1899, **23**, 512.