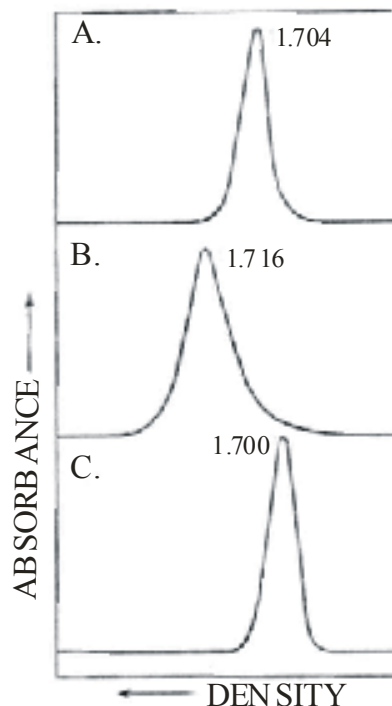


ISOPYCNIC GRADIENT CENTRIFUGATION OF DNA SAMPLES

Terms to be familiar with before you start to analyze the figure

*DNA denaturation and renaturation * cesium chloride density gradient centrifugation * UV absorption of DNA * buoyant density of DNA*

The figure



An aqueous solution of *Pneumococcus* DNA was divided into three samples. One aliquot was heated to 90°C and then slowly cooled (A); the second was similarly heated and cooled rapidly (B); the third served as unheated control (C). All three samples were subjected to CsCl gradient centrifugation under the same conditions and UV absorption at 260 nm was monitored. The densities corresponding to the UV absorption peaks are indicated in the charts. Compare the sedimentograms and interpret the results by answering the following questions:

1. What was the aim of heating the DNA solutions?
2. What was the aim of measuring UV absorption?
3. What happened in sample (A) before centrifugation?
4. What happened in sample (B) before centrifugation?
5. Interpret the difference between chart (B) and (C) !
6. Interpret the difference between chart (A) and (C) !

The source of the figure

Davidson 5th, p72.

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