Agarose (single)

Description

Diffraction Diagram

Fig.1 X-ray diffraction patterns from WHT film of agarose.

(a) Oriented under second type of stretching procedure between 80 and 100Â°C. Patterns show high degree of orientation and crystallization with a layer line spacing of 3.552 nm and a clearly defined meridional on the fourth layer line at spacing 0.888 nm.

*Permission Pending for Diffraction Diagrams

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Fig.2 X-ray diffraction patterns from DMAA high-temperature (DHT) film.

(a) Oriented using type 2 stretching procedure at 42-53Â°C. Substantially improved crystallinity showing layer lines at spacing 2.919 nm with a meridional on the third layer line at spacing 0.973 nm.

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(b) Similar to (b) but with slightly different layer line spacing of 2.815 nm and changes in the intensity of various reflections, especially on equator.

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Fig.2 X-ray diffraction patterns from DMAA high-temperature (DHT) film.

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(b) Similar to (b) but with slightly different layer line spacing of 2.815 nm and changes in the intensity of various reflections, especially on equator.

(c) Oriented using type 2 stretching procedure at 80-100Â°C. Pattern is highly crystalline, with layer line spacing 3.552 nm and meridional on fourth layer line. Similar to Fig. (A).

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Linkage : alpha 1-4 alpha 1-3

Space Group : P21

Unit Cell Dimensions (**a**, **b**, **c** in **Ã** and **Î±**, **Î²**, **Î³** in **Â°**)

(No values are displayed if no information is available or the value is zero)

Helix Type : extended and single agarose chains

Method(s) Used For Structure Determination : X-ray diffraction

Link to the Abstract : http://onlinelibrary.wiley.com/doi/10.1002/bip.360280802/abstract

Reference : New x-ray diffraction results from agarose: Extended single helix structures and implications for gelation mechanism
Foord, S.A. and Atkins, E.D.T., 1989, Biopolymers, 28, 1345-1365