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## The First Liquid Crystal Summer School: 1912

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# The First Liquid Crystal Summer School: 1912

H. Stegemeyer, University of Paderborn

**O**tto Lehmann, Professor of Physics at the Technical University Karlsruhe (Germany) from 1889 to 1919, and successor to Heinrich Hertz, deserves to be called the pioneer of liquid crystal research. After he had been informed by the botanist Friedrich Reinitzer in his famous letter of 14 March 1889 about the "two melting points" of cholesteryl benzoate (cf. *Liquid Crystals* 5, 5 (1989)) Lehmann was the first to give evidence of the "fourth state of matter" which he named "flowing crystals" (in German: fließende Kristalle). Liquid crystals had not been accepted at the beginning of the twentieth century by famous scientists such as Tammann,

Nernst, and van't Hoff, and Lehmann through numerous experimental demonstrations tried to popularize the existence of liquid crystals. For this purpose in 1910 he acquired an old hammer mill (Figure 1) in the Black Forest as his personal property, and offered summer schools on liquid crystals to scientists as well as to laymen. These were announced in the most famous German journal *Zeitschrift für Physik* in 1912. The text of this advertisement written in an old-fashioned German style is translated below.

In this connection Lehmann tried to establish a private foundation to support a holiday institute on physical research in

Hundsbach and sent invitations to numerous colleagues and possible sponsors. However, it has not come down to us if he succeeded in this attempt.

The figures have been taken from the biography *Otto Lehmann, Erforscher der flüssigen Kristalle*, by P.M. Knoll and H. Kelker, Frankfurt 1988 (by courtesy of Professor P.M. Knoll).

## Acknowledgement

Thanks are due to Dr Volkmar Vill, University of Hamburg for submitting the original german advertisement, which forms the basis of this contribution. Ed.

## Summer Schools in Liquid Crystals by O. Lehmann



The above named person has fitted a private holiday laboratory (Figure 2) in front of the sanatorium Hundsbach (Figure 1) which is situated by itself in the midst of a large extended woodland at the river Biberach near the Hornisgrinde at a height of 730m (mailing address Bühl-Sand, within easy reach of the station Baden-Baden or Bühl by public bus to Hundseck or within a walking distance of 4 hours from station Forbach). In a special reserved room of the sanatorium he demonstrates and explains on rainy days the most important

features of liquid crystals to guests of the sanatorium who are interested in this topic. By special request he offers excursions to Karlsruhe in lovely weather in order to perform those demonstrations which require the equipment of his Physical Institute at the University.

A rentable laboratory for extended independent investigation (also in other fields of physics) is under construction (Figure 1). This will be equipped with a water-driven 10-horse-power electric plant and is lonely situated on a bedrock in a special cottage far away from dusty roads, electric trams, and other disturbing factors. Also accommodation will be offered there.

*Figure 1 left – Lehmann's hammer mill (left) and the Sanatorium Hundsbach (Black Forest)*

*Figure 2 below – Otto Lehmann with his children in his private laboratory in Hundsbach*

