

50 years of D11

A history of SANS
at the ILL



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The 1980s and the first D11 modernisation program

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D11 was conceived and designed by Konrad Ibel, Werner Schmatz and Tasso Springer and became operational in 1972 shortly after ILL's first neutron beams became available. Soon after a high angle data bank (D11B) was added by Gernot Kostorz for studying diffuse scattering. The first few years were devoted to many pioneering experiments in the fields of polymers, materials, metallurgy as well as structural biology. In parallel rapid progress was made in software development (Ron Ghosh) although the fundamental design of the instrument remained constant. In the early 1980s at Oak Ridge Wally Koehler had built a 30m SANS instrument whose novel feature was having the 2-dimensional detector mounted on a trolley inside the tube. This was a major motivation for us to initiate a whole series of modifications to modernise D11. A new detector tube was installed with the detector moving inside on a trolley, the instrument control system underwent a major renewal, sample changers and beam stops were automated new sample environments introduced and old ones improved. In my talk I will attempt (within the constraints of 40 years memory) to describe the evolution of D11 in these early years and to show some examples of the data obtained.

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