

Summary of contribution to the ICANS-X panel discussion

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General Items

Experiments completed with the existing sources worldwide have shown that much good work can be done with present flux levels. In many cases the urgent need is for long-term stable running conditions. After this has been achieved there will be further requests for higher power levels, but again long-term stable running conditions will be emphasized as crucial to many experiments. In addition, many users work in other areas of physics and different disciplines and are not used to the problems of working in a "high-energy physics" environment. They need user friendly facilities and support services. Such services will also increase the productivity of all users and, therefore, should be regarded as essential.

The points made above require the continuous attention of administrators and managers and should be given priority over any features that have been introduced for administrative or managerial convenience.

Variable slow neutron sources

As the experiments become more sophisticated, the source requirements become more extensive. Thus, at this meeting, we have heard requests for high-intensity wide-pulse sources and for sources giving very narrow pulses. The pulse repetition frequency has also to be varied to meet these needs from 100 Hz to 0.1 Hz without reduction of mean current.

The aspects of source control imply control over the storage ring's performance and a wide control over the moderator temperature (from $k_B T - 10 E_n$ for intensity to $k_B T - 0.1 E_n$ for narrow pulses, where E_n is the desired neutron energy.) The panel should discuss how the storage ring and moderator designers could develop designs that would give experimentalists control of this kind. Included in this discussion should be how one might achieve such results in reasonable cost and time frames.

"Reasonableness" will become an important requirement as discussions of the above items are pursued, and both experimentalists and designers should take part in a joint dialogue to define this concept.
