

Message to the Symposium “Neutron Optics in Kumatori ‘96”

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Prof. C. G. Shull will not be able to attend NOK’96 unfortunately, but he gives us a message to our Symposium.

I want to say how pleased I am that I am able to send greetings to those who are attending neutron optics Kumatori in sessions that you are presently going through. I would like very much to be there in presence and be able to greet all of you individually, but family matters have prevented that. I was doubly appreciative of the professor Utsuro for sending me copies of various abstracts that you have prepared for your meeting, and was wonderfully impressed by their variety and extent of activity that seems to be going on in this field. I always thought that neutron optics as a field originated back just fifty years ago, when Walter Zinn and Enrico Fermi were doing some of the very first experiments with neutron beams that had become available from the neutron sources. This was back at the Chicago University of Chicago metallurgical laboratory. Those experiments first demonstrated the refractive index of neutrons when passing through media and showed that one can get total reflectivity--a hundred percent reflectivity --from various surfaces. Those measurements were crucial to what eventually came from neutron scattering. They elaborated, they illuminated our knowledge of the scattering process of when neutrons interact with atoms and nuclei in materials, -- very important work. I’ve felt during my own career, which started back in that very early period, that neutron scattering had many potentialities for learning about materials and about in various sorts of interactions that can occur when neutrons visit atoms and nuclei. I was very pleasantly surprised recently when I was able to attend a meeting of the magnetism and magnetic materials group in the United States, “the three M conference”. They had arranged what they labeled an “old timers session” where they were able to bring back many people who had made important contributions to magnetic processes and magnetic properties examinations of materials in earlier years. So it was a great delight to see these people, to meet them again and to be able to talk with them and socialize. I am reminded of that because in your present meeting you have many attendants according to the abstracts and titles on the program of some of the people who were first doing things back in the very early days. Neutron optics physics is not, of course, as old or as established as magnetic phenomena but still it has a well defined history of its own. Again I apologize for not being able to come and be there in presence to see you and to listen to all of you, the wonderful things, that I see from the abstracts, have been going on in recent years. I’ve been away from the field now for about ten years since retiring. And I don’t have the opportunity for keeping up with the literature and new things that are coming so it’s a particular delight for me to see the abstracts and to see, even if it is only the preliminary version here, abbreviated preliminary version, of the newer things that are coming in the field. Finally, I appreciate the opportunity of chatting with (cheering) you and I’m sure that your meeting will lead to many successes in coming years. Thank you again.