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DIMP

For some time the Research Committee of the AIChE has been active in identifying research needs in the field of chemical engineering and then searching for methods to fill these needs. A few years ago, a successful effort along these lines resulted in initiating a research program in non-Newtonian rheology.

More recently, as the result of interest generated by an AIChE advanced seminar on two-phase flow an ad hoc committee was established within the Institute to survey the general area of multiphase processing. A recommendation to establish a Design Institute for Multiphase Processing resulted, and with considerable encouragement from Dr. Manogue, a formal proposal was submitted to AIChE Council at Atlantic City in August of last year. This proposal was accepted and is now being implemented as part of the Research Committee.

The chemical engineering design of systems involving multiphase flow has been a source of much uncertainty in the past, occasionally resulting in overly expensive or even inoperable systems. Yet, the literature shows that a considerable amount of engineering research has been and is being done in the fields of gas-liquid, liquid-liquid, and solid-liquid flow. It appears that a more coordinated approach is needed.

The objective of new Design Institute is to instigate, finance, and coordinate engineering research relating to such multiphase systems in order to arrive at practical correlations defining flow regime, residence time of the several phases, pressure drop, mass transfer, and the like so that commercial systems and equipment, including reactors, can be designed with reasonable confidence.

The AIChE has agreed to sponsor this Design Institute, providing it with seed money and helping organize a drive to acquire adequate financial backing. An organization has been set up comprising a Technical Committee, to coordinate and plan technical activities, chaired by Prof. A. E. Dukler of the University of Houston, and including as members Drs. Ovid Baker, James Fair, Lionel Gaulstaun, Thomas Hanratty, A. L. Schrier, Raymond Smith, Jerry Taborek, and C. D. Siebenthal. It also comprises an Executive Committee chaired by Dr. E. O. Ohsol and includes Dr. J. Henry Rushton as the active Manager of DIMP, Drs. B. Fitch and David Thomas, and our hard-working Secretary Mr. F. J. Van Antwerpen.

It is hoped to raise about \$100,000 to \$150,000 for the first year's program, increasing the scope modestly as the Institute becomes more firmly established. The initial program will concentrate on gas-liquid flow systems, with emphasis on defining flow regime, residence time, and diffusional characteristics. Considerable liaison with the Heat Transfer Research Institute, for whose programs some of DIMP's data may be very helpful, is expected.

On the other hand DIMP, sponsored by AIChE and hopefully to some extent by the NSF, will have a policy of eventual publication of its research results in the open literature. The industrial sponsors will have the advantage of more direct feedback and some digestion of the research data into a form more immediately useful to them for design purposes.

With the proper organization, moneys contributed to DIMP should be more productive than equal or greater amounts spent by various industrial organizations on an individual basis.

ERNEST O. OHSOL

EDITOR'S NOTE: As the Journal is published by the AIChE, it should be responsive those Institute activities that relate to research and development. We have, therefore, asked Dr. Ohsol to summarize the background and objectives of the DIMP project proposed by the Research Committee.