

of six students returned to the United Kingdom. They spent about a week at the University College of Swansea and another week at Imperial College in London. This year's group consisted of four men and two women. As before, two weeks were available for independent travel. At Swansea the group's tutor was again Dean Hopkins and this year's topic was an evaluation of competing zinc smelting processes. At Imperial College the group's tutor was Dr. Stephen Richardson (no relation to Professor Richardson at Swansea) and there they were concerned with a computer controlled set of adsorption-desorption columns.

We plan to continue the program again this year, keeping the group size at about five or six. This seems to be an ideal size. It is large enough so that the tutor can lecture without feeling foolish, and at the same time it is small enough to be invited into someone's home. The students are unchaperoned and no academic credit is given. This format obviously places a high level of responsibility upon the individual student and calls for initiative and good judgment on their parts.

THE DEPARTMENT'S ASSESSMENT

WE FEEL THAT THE PROGRAM allows our students to penetrate the veneer of ordinary tourism and to interact in a meaningful way with teachers and students from a different culture. To be successful, a program such as this requires a group of highly capable students and we currently have these in unprecedented abundance. We are happy to be able to give recognition to these very fine students and we think that our funds are very wisely spent. □

ACKNOWLEDGMENTS

By way of acknowledgment, we wish to thank our industrial sponsors for their generous support. They have been enthusiastic in support of our use of a fraction of their awards for this program. The supporting firms have been: Diamond Shamrock, Du Pont, Mobil, Ethyl, Shell, Celanese, Exxon, Union Carbide, and Union Carbide. Dean Paul Torgersen has generously supported the program from his discretionary funds. Dr. Henry McGee, the department head, has been an enthusiastic supporter of the program as has Dr. Peter Rony, a member of our departmental honorifics committee. Dr. Rony received an award of a somewhat similar type as an undergraduate at Caltech, and he has been an enthusiastic and valuable resource in the planning of our programs. Finally, we would recognize the very fine students who have received the awards. We have placed great confidence in them and they have acquitted themselves well.

MOLECULAR THEORY

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$$\nabla^2 n = \frac{d^2 n}{dr^2} + \frac{2}{r} \frac{dn}{dr} \text{ and the boundary conditions for Eq. (5.5) are } \frac{dn}{dr} = 0 \text{ at } r = 0 \text{ and}$$

$n \rightarrow n_B \text{ as } r \rightarrow \infty$. In the limit of large drops and bubbles the pressure difference ΔP between inside and outside obeys the Young-Laplace equation $\Delta P = 2\gamma/R$, R being the drop radius. As the drops become smaller the above theory shows that this relationship fails, the pressure difference being greatly overestimated by the Young-Laplace equation.

The theory illustrated here for a one component fluid is developed in the course for multi-component fluids and for fluid-solid microstructures. Electrostatic effects are also included so that double-layer and electrostriction phenomena are accounted for. Meniscus shapes, disjoining pressures, and contact angles are investigated also.

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In Memorium

Fred N. Peebles

Dean Peebles was born on April 4, 1920, in Paris, TN. His technical education started at Memphis Technical High School and advanced through bachelors, masters and Ph.D. degrees in ChE at the University of Tennessee. He served engineering education extraordinarily well as professor, department chairman and dean at the U. of Tennessee. During his career, he received numerous awards for his contributions to the University, the community and the engineering profession. He was a member of numerous professional and honorary societies and was the author of many scientific articles. His generosity of spirit infused his institutions' commitment to expanding dramatically the opportunities for minorities to enter the engineering profession. Loved by faculty and students alike, Fred gave unstintingly of himself in assuring their proper development and personal well-being.