

# NUCLEAR APPLICATIONS & TECHNOLOGY



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*Thomas J. Marciniak*

Thomas J. Marciniak (PhD, mechanical engineering, University of Notre Dame, 1968) is an assistant mechanical engineer at Argonne National Laboratory, Argonne, Illinois, and is currently involved in LMFBR safety problems and liquid-metal boiling detection.

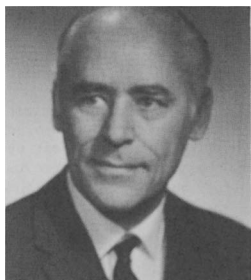
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*P. E. Reagan, E. L. Long, Jr., J. G. Morgan, J. H. Coobs*

P. E. Reagan (left) (BS, Tennessee Polytechnic Institute) has performed in-reactor tests on fuel materials at NRTS, Idaho Falls and at ORNL, and has published several papers on irradiation damage to reactor fuels, especially coated-particle fuels. J. H. Coobs (center left) (BS, Iowa State University) conducted research on beryllium carbide and on clad fuel elements. As assistant director of the GCR Project at ORNL, he has been active in the development of coated-particle fuels. E. L. Long, Jr. (center right) (BS, University of Tennessee) heads Remote Metallography at ORNL and has performed metallographic examination of irradiated coated-particle fuels. J. G. Morgan (right) (MS, University of Pittsburgh) has been responsible for the evaluation of irradiation tests on GCR fuels since their early development as well as working in the advanced fuel concept area.



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*John R. Folkrod*

J. R. Folkrod (BSME, University of Illinois, 1952) joined Argonne National Laboratory in 1955. His recent experience is in developmental engineering work in the fast reactor field.

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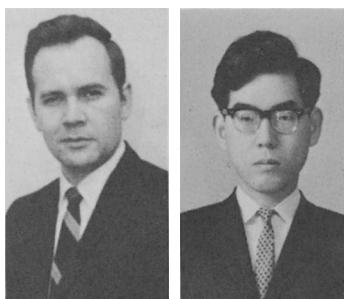


*A. MacCragh*

A. MacCragh (PhD, The Johns Hopkins University, 1964) has been with the Nuclear Research Department of W. R. Grace & Co., for five years, where he is a senior research chemist. He has worked mainly in the areas of synthetic colloidal chemistry, nuclear waste utilization, and recycle fuels.

## RADIOISOTOPES

### ENGINEERING DESIGN OF AN INSTRUMENTED PILOT PLANT FOR 445 REMOTE REACTIONS—RADIATION-INDUCED POLYMERIZATION



*F. T. Osborne, S. Omi, V. T. Stannett, E. P. Stahel*



Franklin T. Osborne (top left) is senior research engineer, Chemstrand Research Center, Monsanto, Durham, NC. He completed his doctorate on the subject of the paper at North Carolina State University. Shinzo Omi (top right) (chemical engineering, Tokyo Institute of Technology) has been a research associate in chemical engineering at North Carolina State University for the last two years and shares fundamental interests in reaction engineering with Edward P. Stahel (bottom left) (Princeton University, Notre Dame, and Ohio State) associate professor of chemical engineering. Fundamental chemical assistance was provided by V. T. Stannett (bottom right) (London and Brooklyn Polytechnic Institute), Camille Dreyfus Professor in chemical engineering. Stannett is a well-known physical chemist with broad experience in the polymer field.

## SHIELDING

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*H. C. Claiborne, D. K. Trubey*

H. C. Claiborne (right) has been involved at Oak Ridge National Laboratory in reactor design and analysis for the past 16 years after prior years in other engineering fields. Lately he has specialized in shielding against radiation from reactors and weapons. D. K. Trubey, manager of Oak Ridge's Radiation Shielding Information Center, has been involved in shielding and radiation transport research at Oak Ridge National Laboratory since 1953.

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*H. Al-Shahristani, R. E. Jervis*



R. E. Jervis (right), professor of chemical and nuclear engineering at the University of Toronto, has been involved in radiochemical and radioactivation research for over 15 years, especially with materials of biomedical, forensic, and pollution interest. Hussain Al-Shahristani obtained his BSc from the Imperial College (London, 1965), his MASc from the University of Toronto, and is presently completing a PhD program at the University of Toronto. He has already published several papers in heat transfer and nuclear chemistry.

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*Juhani Kuusi*



Juhani Kuusi (Technical University of Helsinki, Finland) is a research worker with the Finnish Atomic Energy Commission and group leader of the Radioisotopes Application Group at the Reactor Laboratory of Technical University of Helsinki.

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