



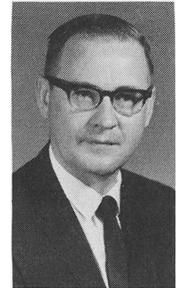
AUTHORS — OCTOBER 1973

MATERIALS

A MODEL OF THE DYNAMIC BEHAVIOR OF THE COAXIAL-FLOW GASEOUS-CORE NUCLEAR REACTOR

Kyle H. Turner, Jr. (left) (PhD, nuclear engineering, Georgia Institute of Technology) is currently with the Meteorology office of Dames and Moore in the position of staff nuclear engineer. He is involved in air quality measurements, atmospheric diffusion calculations, and evaluation of pollution abatement methods. Joseph D. Clement (PhD, physics, University of Wisconsin) is a professor of the School of Nuclear Engineering at the Georgia Institute of Technology. His present research interests include advanced nuclear power plants, energy engineering, and fuel management.

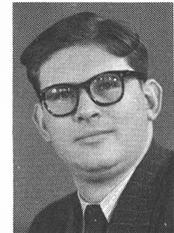
*Kyle H. Turner, Jr.
Joseph D. Clement*



ON THE EMISSION COEFFICIENT OF URANIUM PLASMAS

Richard T. Schneider (top) (PhD, University of Stuttgart, 1961) was employed by the Allison Division of General Motors Corporation from 1961 to 1965 where, as section chief for plasma physics, he worked in plasma diagnostics for MHD power generation. Since 1965, he has been a professor at the University of Florida, where his main interest is plasma diagnostics for uranium plasmas. Hugh D. Campbell (center) (PhD, University of British Columbia, 1968) is an assistant professor in the Department of Nuclear Engineering Sciences at the University of Florida. His interests lie in the plasma area and include plasma spectroscopy, gas lasers, and controlled thermonuclear fusion. J. M. Mack, Jr. (bottom) (MS, University of Florida, 1969), although currently a PhD candidate at the University of Florida, is presently employed with Martin-Marietta Corporation in Orlando, Florida. His interests include plasma spectroscopy and neutronics calculations.

*R. T. Schneider
H. D. Campbell
J. M. Mack*

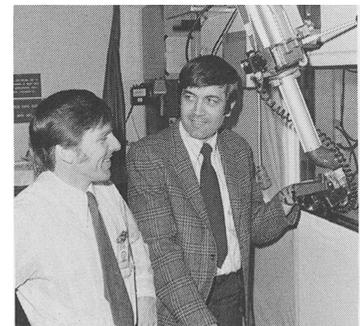


MATERIALS

EFFECT OF NEUTRON IRRADIATION ON THE ELASTIC CONSTANTS OF TYPE-304 STAINLESS STEEL

Jerry Straalsund (left) (PhD, engineering science, Washington State University) is a senior research scientist in the Reactor Metals Subdivision of the Westinghouse Hanford Company. His principal area of research is irradiation-induced swelling of reactor structural materials. Cliff Day (PhD, electrical engineering, Iowa State University) is a senior development engineer in the Measurement and Control Technology Subdivision of the Westinghouse Hanford Company. His principal field of interest is the application of acoustics to nondestructive testing.

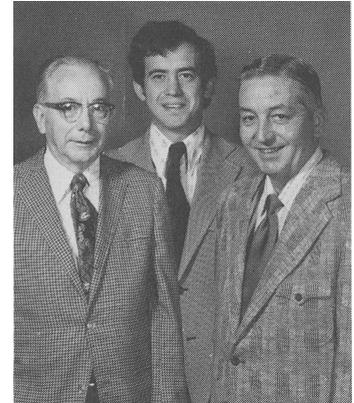
*J. L. Straalsund
C. K. Day*



RADIATION DOSES FROM HYPOTHETICAL EXPOSURES TO RULISON GAS

*C. J. Barton
R. E. Moore
S. R. Hanna*

Charles J. Barton (left) (PhD, University of Virginia, 1939), presently a staff member of the Environmental Sciences Division of Oak Ridge National Laboratory, has for the past several years been involved in evaluating the possible radiological impact of uses of natural gas from nuclearly stimulated wells. Steven R. Hanna (center) (PhD, Pennsylvania State University, 1967) is a research meteorologist with the Atmospheric Turbulence and Diffusion Laboratory of National Oceanic and Atmospheric Administration, Oak Ridge, Tennessee. Robert E. Moore (right) (PhD, University of Chicago, 1950) is a staff member of the Environmental Sciences Division of Oak Ridge National Laboratory. His current interests include the development of computer programs to aid the estimation of doses from nuclearly stimulated natural gas and the developing methodology of assessing the release of radioactivity from nuclear facilities.



EFFECTS OF GAS MIXTURE, ELECTRODE SPACING, GAS PRESSURE, AND APPLIED VOLTAGE ON THE GAMMA PERFORMANCE OF FISSION COUNTERS

*L. D. Philipp
N. C. Hoitink
W. G. Spear
M. R. Wood*

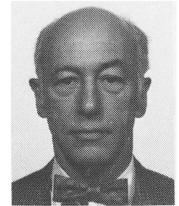
L. D. Philipp (left) (BSEE, University of Colorado, 1963; MSEE, University of Washington, 1967; PhD, electrical engineering, University of New Mexico, 1971) has seven years of experience in reactor instrumentation at Hanford, where he has technical leadership responsibility for programs involving neutron flux instrumentation and insulator research and development. N. C. Hoitink (not shown) (BSEE, Gonzaga University, 1963; MSEE, Washington State University, 1968) has been involved in nuclear instrumentation development for the past ten years; his recent efforts have been aimed at fast flux reactor applications. W. G. Spear (right) (MSEE, University of Idaho, 1960), presently manager of Reactor Instrument Development at Westinghouse Hanford Company, has been working in the nuclear field for 21 years, with emphasis on reactor instrumentation development for the past 12 years. M. R. Wood (center) (BSEE, University of Washington, 1947), presently a system engineer in the Westinghouse Hanford FFTF project, has worked in the nuclear reactor instrument field for 22 years.



CONTINUOUS CONVERSION OF URANIUM/PLUTONIUM NITRATES TO OXIDES

Norman Levitz (top left) (BS, chemical engineering, University of Illinois, 1948) is a group leader in the Chemical Engineering Division, Argonne National Laboratory, and has extensive experience with fluidized-bed systems and process development work for the nuclear fuel cycle. His recent activities include process evaluation studies in both nuclear and environmental areas. David Grosvenor (top right) (BA, Wesleyan University, 1939) has experience in development work on pyrochemical recovery of nuclear fuels, equipment design and development, and fluidized-bed pilot-plant operations. He is presently teaching at Triton College, River Grove, Illinois. Seymour Vogler (center right) (BS, chemistry, City College of New York, 1939) has extensive experience in the nuclear field in areas of radiochemistry, chemistry of heavy elements, separation processes, and high-temperature ceramic materials. F. Gale Teats (bottom left), an engineering assistant, has pilot-plant experience in waste treatment, pyrochemical recovery of nuclear fuels, and fluidized-bed processes. Nicholas P. Quattropiani (bottom right), a senior scientific technician, has worked in the areas of pyrochemical fuel reprocessing, nuclear fuel synthesis, and reactor chemistry.

*N. Levitz
D. E. Grosvenor
S. Vogler
F. G. Teats
N. Quattropiani*



PROTON DOSIMETER DESIGN FOR DISTRIBUTED BODY ORGANS

Govind S. Khandelwal (left) (PhD, physics, University of North Carolina, 1966) is an associate professor and graduate program director in physics at Old Dominion University, Norfolk, Virginia. His fields of interest are theoretical atomic, nuclear, and radiation physics. John W. Wilson (MS, physics, College of William and Mary, 1968) has been an employee of NASA, Langley Research Center, since 1963. His areas of interest are high-energy and nuclear physics, radiation transport, and real-time flight simulation.

*G. S. Khandelwal
J. W. Wilson*

