

CAPACITORS

Low-inductance High-Q

High-voltage Long-life

A somewhat unusual policy —

for a commercial enterprise — is the one we have adopted and are pursuing in our research and development in the field of energy-storage capacitors.

Recognizing

that there are many projects in physics and engineering, whose progress is limited by the technological problems associated with producing rapid rates of current-rise at high voltage and low inductance, with long life and high reliability, low internal-resistance or high Q, a wide range of self-resonant frequencies, and operation at low and high temperatures and high repetition rates —

We pledge ourselves

to cooperate in serving your requirements in special capacitor applications. Your inquiries will guide us in applying our efforts to the development of capacitors to suit *your* future needs.

The design principle

on which our capacitors are built has been proved in private and government laboratories and we are in production on standard units that may well meet your present need.

Here are their specifications

Voltageto 25 kilovolts	for greater capacity at low inductance)
Inductanceless than 1 nanohenry (includes a practically realizable termination)	Operating temperatureto 200 C.
Self-resonant frequencyto 15 mc (depending on capacitance rating)	Operates in high vacuum
Q self-resonantto 350	Repetition ratesto 1000 pps
Energyto 500 joules (units can be parallel-connected	Discharge-lifemany millions of cycles (depending on service)
	Terminationscoaxial or parallel-plate transmission line

We can supply other units in capacities up to 6000 joules and voltages up to 120 kv, with self-inductance of 30 nanohenries.

Your inquiries are invited

on standard or special capacitors for any energy-storage-and-discharge service.

and programming will be available in the University Computer Unit. A selection from these topics will be made for each student admitted; although the majority of students will presumably be intending to go on to theoretical work, a suitably chosen course will also provide background for those whose subsequent research is experimental. Arrangements have been made to allow students to visit the Rutherford Laboratory for short periods.

The diploma will be awarded partly by examination and partly on a short dissertation to be prepared by the student during the year. Students who do well in the course may be admitted to a subsequent two-year (minimum) PhD course in mathematical physics. Inquiries and provisional applications should be addressed to D. J. Candlin, P. W. Higgs, or E. J. Squires at the Tait Institute of Mathematical Physics, 1 Roxburgh St., Edinburgh 8, Scotland.

ORNL Scientists To Teach

The University of Tennessee has received a Ford Foundation grant of \$750 000 which will enable the University to employ scientists and engineers from Oak Ridge National Laboratory as regular members of its graduate faculty. The Atomic Energy Commission has agreed that the selected Oak Ridge scientists will be relieved of twenty percent of their research duties in order to do the teaching. The Ford grant will underwrite the portion of their salaries for the time spent at the University.

Part of the total sum (\$200 000) will support operation of the program for the next two years, and it is expected that additional amounts will be given over a period of eight to ten years. Initially the money will be used for work in physics, chemistry, mathematics, and chemical and metallurgical engineering, and plans are being made to extend the program to other departments.

Among the first Oak Ridge scientists to receive concurrent appointments to the Tennessee faculty are five who will join the Department of Physics. They are Ted Welton, Harold Schweinler, Louis D. Roberts, G. S. Hurst, and Harvey B. Willard.



TOBE DEUTSCHMANN
LABORATORIES

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