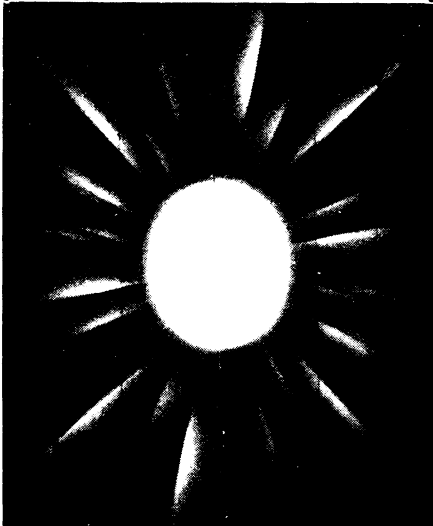


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ASTROPHYSICS

NSF takes up the slack

Despite abandonment by the Navy, research in laboratory astrophysics at California Institute of Technology will continue under a grant of \$800,000 from the National Science Foundation.

The studies, which have been under the direction of Prof. William A. Fowler and the late Prof. C. C. Lauritsen, use laboratory methods such as energetic particles from accelerators to mimic conditions supposed to exist on the sun or other stars.

Results of such experiments give astronomers an idea of what to look for as evidence that theoretical processes are actually going on. Feedback from what astronomers actually do see then modifies the theories and the laboratory work based on them.

Some of the questions under investigation are the nature of the processes that generate the energy radiated by stars, the manner and the order in which nuclear reactions in stars form the various chemical elements, and the way in which stars, galaxies and the solar system evolved from some primordial state of the universe.

The Caltech work has been supported by the Office of Naval Research for the last 20 years, and its budget has grown from \$100,000 a year to the current figure.

In a few years they hope to find support for a \$10 million cyclotron as well.

The Navy gave up support in accord with a Defense Department policy of withdrawal from nondefense research that was announced when this year's budget was submitted to Congress. At the time it was predicted (SN: 2/10, p. 136) that the National Science Foundation would step in and carry some projects dropped by Defense.

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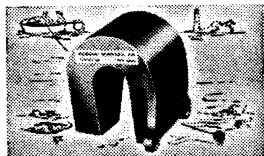
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