

In This Issue



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FIRST ENGLISH TRANSLATION: VERNADSKY ON THE STATES OF PHYSICAL SPACE

This 1938 article draft continues Vernadsky's discussion of the relationship of living and non-living natural bodies, examining their states of space. In particular, he probes the difference between the material and the energetic properties of space, proposing that living-matter exists as droplets in a Riemannian space, dispersed within the Euclidean space of the inert matter of the biosphere.

Every crystal manifests a particular state of space, Vernadsky writes. Here, one of the largest monocrystals in the world, grown by Saint-Gobain for use in the French laser fusion program.

Doctors at the University of Washington Medical Center perform a radioisotope treatment for prostate cancer. Inset are tiny radioactive "seeds" of cesium-131, which are implanted near or in a tumor. The X-ray emitting seeds kill the cancer cells without serious side-effects.



NUCLEAR MEDICINE SAVES LIVES; WILL THE U.S. CATCH UP?

Radioactive isotopes that precisely target cancerous tumors without damage to surrounding cells are just one of the nuclear medicine technologies that can save lives. An expert on medical isotope production, Dr. Robert E. Schenter, discusses the exciting developments in the field, including the use of radioisotopes to kill the HIV virus. In an accompanying article, Marjorie Mazel Hecht reviews the languishing state of the U.S. nuclear medicine program.



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