

nuclear
weapons
journal



Winter 2004

- Validation Experiments ■ Atlas ■
- Shock-Driven Instability ■ Ion Beam Analysis ■
- Monitoring HE Aging ■ Teflon Impact Response ■

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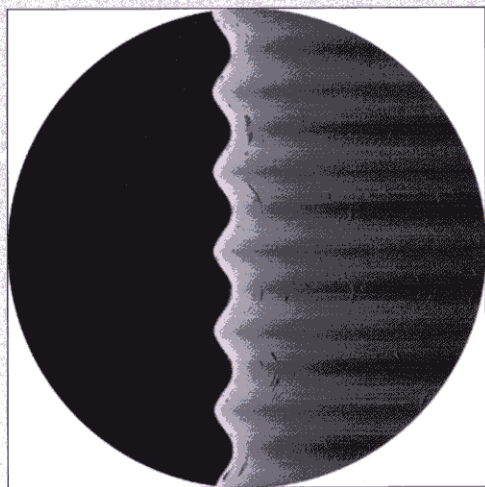
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About the cover: Scanning electron micrograph (SEM) of the unstable interface in a Richtmyer-Meshkov hydrodynamic experiment performed using the OMEGA laser, showing a portion of the cylindrical target before the experiment. The laser strikes a layer of epoxy left of the figure and drives a strong shock into the cylinder, causing an implosion and initiating instability at this interface. The sinusoidal perturbations, machined into a thin aluminum layer, have a wavelength of $9\ \mu\text{m}$ and peak-to-peak amplitude of $2\ \mu\text{m}$. SEM courtesy of Norm Elliott, MST-7.

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Correction: The "Backward Glance" in the September/October 2003 issue stated that George Gamov remained a Russian citizen after he fled the Soviet Union in 1933. In fact, he and his wife Rho (Luybov Vokhminzeva) became naturalized American citizens as soon as possible. They were proud of their American citizenship and traveled widely with their American passports. Only under Soviet law and in that territory did they remain Russian citizens. (We thank George's son, Igor, and his wife Elfriede for this information.)



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BACKWARD GLANCE

World War II Code Words

Many people are familiar with some of the code words used at Los Alamos during World War II—Fat Man, Little Boy, and Trinity. Here is a sampling from the many others created during that time.

25	^{235}U	Kingman	Wendover Field, Utah; training ground for the combat delivery of Fat Man and Little Boy
49	^{239}Pu	Kit	Supplies and tools used to assemble Fat Man and Little Boy on Tinian Island
Batch	Material sent to Tinian Island in the Pacific	Nicholas Baker ...	Niels Bohr
Bowery	Shipments of replaceable material sent to Tinian Island	Pit	Core and tamper of the Trinity device and Fat Man
Bronx	Shipments of irreplaceable material sent to Tinian Island	Pit Team	Team assigned to assemble both the Trinity device and the Nagasaki Fat Man bomb
Camel	California Institute of Technology Program to produce high explosives for implosion assemblies	Postum	Polonium
Centerline	Center Line, Michigan, Naval Ordnance Plant	Product 89	Crystalline boron of normal composition
Clearcreek	Teletype designation for Los Alamos; used after each combat drop and for Operation Crossroads communications	Pumpkin	Fat Man ballistic shape filled with high explosives used for test drops
Clementine	Plutonium fast reactor	Sandy Beach	Salton Sea, California; used for sea-level drop tests of early Fat Man and Little Boy devices
Destination	Tinian Island (from which the Enola Gay and Bockscar flew their respective combat missions); used for teletype transmissions after each combat mission	Soda Pulp	Bismuth
Dogpatch	Oak Ridge, Tennessee	Thin Man	Early design of Little Boy
Henry Farmer ...	Enrico Fermi	Tuballoy	Natural uranium
James Baker	Aage Bohr	Uncle Nick	Niels Bohr
Jumbo	216-ton containment vessel designed to recover plutonium at Trinity site	Vitamin B	^{10}B
		W-47	Wendover Field, Utah

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