

## Du Pont Exhibit Fills Fair's Chemistry Gap

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### Once Over Lightly

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#### New York

Despite the emphasis on the sciences at the New York World's Fair, chemistry has been passed over lightly.

This situation will be remedied somewhat when the permanent science museum is opened at Flushing Meadow next summer. But in the meantime, the chemist or would-be chemist will be interested in the du Pont pavilion.

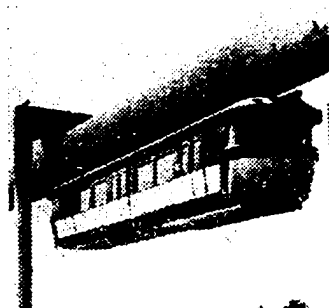
Here a presentation called the "Wonderful World of Chemistry" will be presented 40 times daily.

It will include a score of chemistry demonstrations, including the freezing of a flower in freon. In this demonstration a live flower is dipped for a few moments in freon at about 50 degrees F. below zero. The flower freezes instantly. The flower is removed from the freon and when struck on a table top, it shatters like glass.

#### Color Changes

Disappearing blue: A large flask containing a clear liquid changes to a deep blue color when the flask is shaken. This blue color slowly changes back into a clear solution again, simply by shaking the flask.

Instant nylon: A large container contains two liquids, one of them floating on the other.



#### Monorail

Monorail cars such as this will offer a view of the New York World's Fair lake amusement area.

Where the two liquids meet, polymerization occurs and pure nylon is produced. This film of nylon can be lifted out of the liquids by wearing rubber gloves and reaching through the top liquid.

#### Quick Jell

This process is continuous and a cord of nylon can be drawn from this container until one of the liquids is depleted.

Conductive paint: A tape recorder is separated from its speaker by a panel of transparent plastic sheet so that, although the tape recorder is mechanically operating, no sound comes out of the speaker since it is not electrically connected. An aerosol dispenser containing a paint which conducts electricity is used to spray two "wires" leading from

the tape recorder to the speaker. Completion of the second "wire" electrically connects the speaker and it begins to play.

Baymal: A tube about three feet long and four inches in diameter is partly filled with a thick liquid, Baymal. This substance is thixotropic, that is it becomes liquid when shaken. The liquid jells, or becomes firm, in about 10 seconds. If the cylinder is held vertically with the liquid Baymal at the bottom, in 10 seconds it can be turned over so that the Baymal stays at the top. The Baymal can be liquefied by simply shaking the tube. Then it will jell again. This can be done again and again.

#### Bounce Cushioned

Tipersul: A performer lays a piece of one-eighth inch Tipersul on his open palm and an assistant places a red-hot bolt on the Tipersul. This thin sheet protects his hand completely and the performer shows the high temperature of the bolt by dropping it on a piece of wood which catches fire.

Hindu rope trick: This demonstration features Stren, a nylon fishing line. It is so fine and transparent that the well-known Hindu rope trick can be reconstructed by attaching the Stren to a piece of manila rope and using it to lift the rope. It hovers in midair as though unsupported.

Mylar and Butacite drum:

Two drums, about three feet in diameter, have their ends covered with Mylar and Butacite; respectively. A heavy solid Lucite bowling ball is dropped to the plastic sheets from a height of about three feet. Upon striking the Mylar, the ball rebounds sharply. The Butacite drum, however, cushions the blow, and the rebound of the ball is substantially less.

Jacob's ladder: A 50,000-volt

arc up to a foot long is generated between two vertical rods in the form of a "V." A piece of wood placed in the gap catches fire immediately because of the intensity of the arc. A sheet of Mylar is then placed in the gap. The power is turned on, but the arc does not strike due to the high insulating ability of the Mylar. As soon as the Mylar sheet is removed, the arc is immediately generated.