A belligerent atomic nucleus

The Judek effect

On occasion, scientific discoveries present themselves in unexpected ways. In such cases only the most thoughtful and skilled of experimentalists will realize the significance of an anomalous or unexpected result. For Barbara Judek and her discovery of super-collisional nuclei an additional ingredient was required — that of considerable determination.

Dr. Judek learned the then-novel technique of using a photographic plate to follow the tracks of nuclear particles when she was working at Edinburgh University in the 1950s. Called the "nuclear emulsion" technique, it employs a special type of photographic emulsion plate for recording these tracks. A fast particle passing through the emulsion has the same effect on the sensitive photographic grains lying in its path as the action of light on an ordinary photographic film. Some of the track characteristics, their lengths, "straightness", the amount of blackening and so forth, can be measured and they provide in-

The Herzberg Institute's Dr. Barbara Judek. Quarks that spread out in space may be the answer.

Le Dr Barbara Judek, de l'Institut Herzberg d'astrophysique. Des quarks dispersés dans l'espace pourraient expliquer l'effet qu'elle a découvert.