

results of this precise analysis have frequently shown the innocence rather than guilt of the defendant.

Conclusion

In conclusion, of all the unusual circumstances where neutron activation analysis has been applied, I think identification of a so-called unidentified flying object ranks among the rarest. This involved the report of a flying disk that approached a beach in south Brazil at unbelievable speed. It was alleged then to have turned sharply and exploded, disintegrating into thousands of burning fragments, some of which were salvaged and sent to the Brazilian Agriculture Ministry. Analysis there reportedly showed the fragments to have magnesium of greater purity than human technology could produce, a report that could not help but stimulate unearthly speculation.

It was impossible to verify any relation between the magnesium fragments and a UFO sighting, but the claim of a high degree of purity could be checked by activation analysis. The work was carried out at the Internal Revenue Service Laboratory in Washington. Careful analysis showed that the fragments were really not as pure as claimed and that they did not differ significantly in magnesium content from other magnesium samples. The fragments did have a very high strontium content, and, although this was considered unusual, it was not sufficient basis for claiming unearthly composition. Analysis showed, therefore, that the fragments could not be used as valid evidence of the extra-terrestrial origin of a vehicle. The project report concluded with the carefully worded statement: "Belief in the existence of such vehicles, if such belief is held, must rely on other arguments."

This was the case of the flying saucer shot down by neutron activation analysis. By its very nature, the case illustrates the idea that there seems to be no limit to the range of radioisotope and radiation techniques as they apply to various aspects of our lives.