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CIC-14 REPORT COLLECTION

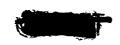
Series..A

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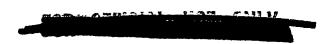
OUCTHSTILLED



MOTE

may have access to it. When not in use, it must its_transfer, it is you contained

THROUGH YOUR LEGLIGENCE.



PUBLICLY RELEASABLE
Per Brandwis, FSS-16 Date: 2/22/96
By May DG2. CIC-14 Date: 9/10/45

Classification changed

Dec Rm 2 Harres 3-17-5/8

Physica - mulius Reactions, etc.



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(From Sizeusaions on 4/21 -24/43)
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I. DUTEUTION

1. Threshold detectors

a) lission

I group will undertake procurement of Pa. To and rough preliminary measurements.

We group will extend measurements of 28 cross-section to higher energies with maximum precision and will procure and measure the fission of Th. Pa and Io will be measured when available.

b) Other processes

E will prepare and messure the setivity of cuitable n-, n-p, n- threshold detectors to be in-

Car counter

I will continue with development of such instruments including the addition of an anti-coincidence stage for differential range measurements. Although I assumes the responsibility W and I are included in plans, personnel and testing.

Ion Chambers

dimilar atrangement to I.3. above.

4. Photographic Plates

All work in W group - Richards in charge.

5. Cloud Chamber

No work thereon contemplated.

8. Slow neutron detectors
2 will supply and calibrate thornal neutron detecting foils.

II. TOTH HES

1. Thort time messurements

Tast counter studies, development of appropriate circuits, and source modulation have not been used in in detail except that K. J. Froman and Bacher groups are concerned. Bacher will be responsible for communication of Rediction Laboratory techniques which are applicable.

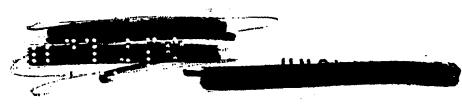
artificial fission neutron spectrum

Meddermeyer will assume responsibility for research.

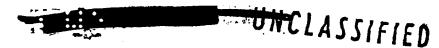
3. Fisaion counting with high alpha background Kannedy and Jegra

4. Source standardization

A will set up a graphite column for standardization of portable sources and will be responsible in a general way for such work in the laboratory.



STEPENENCE



INI. THOSER WEDGEROH (Mederical of resent interest: U. J. Lu. Bi. Pb)

L. Boattering.

A will work on tamper materials with 0.3 Nev neutrons and investigate possibilities of suitable detectors for measuring inclastic scattering energy less. The final lawestigation of tamer proporties with other neutron energies will be done by 0.

2. Capturo

3 and Jogre will investigate capture in tan or exteriols. Shell type into ral experiment. This will be done by I or Fermi.

IV. PROPERTIES OF FINDIONAPHED BUT CHALLS (25, 26, 46, 25, 01)

I. Soutron number V.

V(40)/V(25) with 200 V of 40. It seems doubtful
if a sufficiently low fast newtron background can
be obtained in a cyclotron-irradiated graphite column.
It can be done in Chicago or with a modulated cyclotron
although in the latter case the intensity is low. Discussion as to the best method is continuing including
the use of the Li(p,n) reaction as a source.
Other V's have not been discussed.

Spectrum
(25). Richards will measure plates alr ady obtained and the Stanford work will continue.

. Delayed Imagion

A group will proceed with the actual of Baker.

4. Spontaneous flasion

Continued work by Kennedy and Jegre 5. Snell type experiment on normal uranium

Ler Fermi. Use of hydrogen ionization to mean to a supposted by Sethe.

C. Inclostic scattering

3. Cotal cross-section.

3. Fission cross-sections

a) Will continue 35 with emphasis at < 0.4 >1.0 date. Will also zeasure 40.25, 01. These are to rield absolute cross-sections.

*ostponed for lack of material.

b) $\sigma(\text{CD})/\sigma(\text{D})$ relative measurement to check 1/v 1. w to be done by 7 or with a photo-source, in the 100-100,000 twit region with beron absorbers to change the neutron onergy distribution.

Collegation

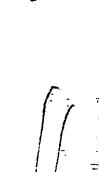
I. Sacher

J. Jermi

J. Jermi B. aldman J. Bennady J. dilliama J.M. Banley R. dilson

J. . ppenheiner Tile







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