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CENTRAL INTELLIGENCE AGENCY  
**INFORMATION REPORT**

25X1

COUNTRY **Germany (Soviet Zone)**

SUBJECT **Carl Zeiss, Jena / Electronic Multipliers, Synthetic Crystals**



DATE DISTR. **7 JUNE 1954**

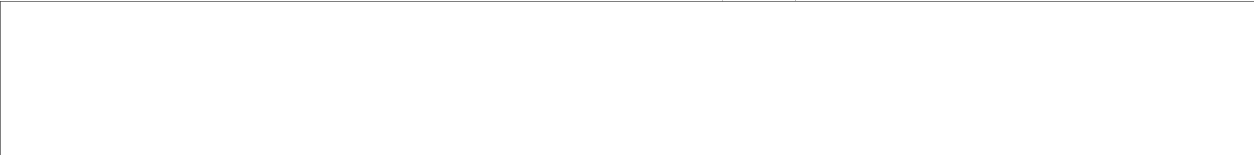
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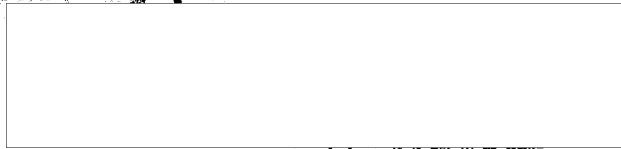
SUPP. TO REPORT NO. 25X1

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1. Secondary emission electronic multipliers are being delivered to the Soviet Union and the research institute at Berlin-Friedrichshafen. There are 25 of these machines in existence at the present time. One hundred are to be manufactured in April 1954.
2. Technical data: amplification about  $10^6$ ; voltage, 2,800 V. Feed wire from socket and from overhead. The voltage is to be increased in the next machines made. The apparatus has very good constancy. Range: 200 nm to red. The sensitive layer consists of cesium (cs) and antimony. These materials are prepared in the West and there is enough on hand for the time being. The price of the machines is between 350 and 500 marks. Comparative tests with American equipment are being carried out at the present time.
3. Zeiss Jena has been working for about five years on the development of synthetic crystals and has finally succeeded in producing crystals about 10 cm. in size. They are used as substitutes for quartz resonators, to which they have proved superior. Crystals are supplied for the time being only to the research institute at Friedrichshafen, which belongs to the Volkspolizei and is working primarily with radar and electronic measurement technique.



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