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THIS IS UNEVALUATED INFORMATION

1. The following is a general outline of the research and development projects registered with and administered by the Central Office for Research and Technology (Zentralamt fuer Forschung und Technik) (ZAFI) in 1951:

a. Projects concerning the field of machine construction, mainly aimed at restoring the technical level in this field which was reached in 1945. Most of these projects did not have any effect on production before 1952 and 1953. Research and development work on the construction of ball bearings was intended to be started in 1951 but actually did not begin until later.

b. In the field of metallurgy, a number of projects dealt with the exploitation of ferrous and nonferrous metals.

c. Mining: Construction of low blast furnace models was begun.

d. Electrical Engineering: The projects were mainly concentrated on experiments in the field of weak current technology for the radio industry. The first development projects for television were started.

e. Biology: Experiments dealing with the application of Soviet methods based on Lysenko's theories. In addition, experiments were carried out for the purpose of achieving maximum exploitation of available agricultural space in view of the shortage of fertilizers.

f. Forestry: Experiments for the purpose of developing fast growing trees. The poplar program was started within the framework of the Five-Year Plan. Another large-scale project started in 1951 was the growing of burrs (Spitzkletten) for the purpose of obtaining albumen and fat substances from these plants. The burrs were also planned to be used for fiber production. The "Spitzklettenprogramm" was discontinued in 1952 but was resumed in 1954.

g. Precision Mechanics and Optics: The majority of projects dealt with work carried out at VEB Carl Zeiss, Jena.

h. Basic research: Work was mainly concentrated on projects for the construction or reconstruction of scientific institutes such as the Fiber Research Institute in Teltow-Seehof, the Heinrich-Hertz Institute in Berlin-Adlershof, and the Electro-Chemical Institute in Dresden.

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- i. Inorganic Chemistry: Development of magnesium silicates. Development of a cement rotating furnace.
- j. Organic Chemistry: Development of fibers and synthetic substances on high polymer base. Development of polyvinyl chloride technology for synthetic substances. Experiments for the determination of the most practical exploitation of Buna matter. Development of new raw materials for soap production, such as Mersol. Work aiming at the best exploitation of waste material resulting from lignite distillation. Projects aiming at the improvement of ~~cellulose~~ (Zellwolle) technology. Start of the project for the construction of ~~the Institute for~~ Organic Chemistry in Leipzig.
- k. Pharmacy: Penicillin development. Substitutes for novocaine and other an-aesthetizing material.
- l. Textile Industry: Projects aiming at ~~the~~ processing of ~~cellulose~~ and artificial silk. Development of fire hose from ~~cellulose~~.
- m. Wood Technology: Plywood and micro-plywood projects.
2. The following are ZAFT research projects since 1951, mainly in the fields of organic chemistry and fiber research, with indication of start and termination dates and the research personnel concerned, where known. Most of these projects concern organic chemistry and fiber technology:
- a. Investigation of electro-static charges of fiber material; start, 1951; carried out in the Fiber Research Institute in Teltow-Seehof. Scientists in charge, Professor Schramek (fnu), of Kunstfaserwerk Wilhelm Pieck in Schwarza; Dr. Boehringer (fnu), of the Institute for Textile Technology in Karl-Marx-Stadt; Eng. Simon (fnu), from the Institute for Fiber Technology in Pirna-Copitz. This project is expected to be completed in 1955.
- b. Polyethylene ^(Phosphate) start, 1951; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Griehl (fnu). Project completed in 1953.
- c. Production of furfural from flax waste; start, 1951; carried out by the Fiber Research Institute in Teltow-Seehof in cooperation with the Institute for Fiber Technology in Pirna-Copitz under the scientific supervision of Dr. Griehl. Completion date, 1954.
- d. Furfural production; start 1951; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Griehl. Completed, 1953.
- e. Development of acetates for fibers, silks and plastic material; start, 1951; carried out by the Institute for Organic Chemistry in Magdeburg under the scientific supervision of Dr. Thinius (fnu). Since 1952 the Fiber Research Institute in Teltow-Seehof has been working on the same project under the scientific supervision of Dr. Moehring (fnu). To be completed in 1956.
- f. Elimination of resin from industrial pine waste; start, 1951; carried out by the Institute for Economic Sciences in Berlin under the scientific supervision of Dr. Seifert (fnu). Completed in 1953.
- g. Development of glass fibers with a strength ^(sic) up to eight microns start, 1951.
- h. Development of a flax wet-weaving procedure; start, 1951; carried out by Dresden Technical University under the scientific supervision of Professor Frenzel (fnu). Completion date, 1955.
- i. Development of a short-weaving procedure for ~~cellulose~~ and cotton; start, 1951; carried out by Dresden Technical University under ~~the~~ scientific supervision of Professor Frenzel. Completion date, 1955.

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j. Development of a flax wet weaving machine; start, 1951; carried out by Dresden Technical University under the scientific supervision of Professor Frenzel. Completion date, 1955.

k. Investigation of "Masern" and "Flusen" occurring with Perlon silk; start, 1951; carried out by Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Boehringer. Completion date, 1955.

l. Polymerization of acrylnitril and development of new polymerization methods; start 1952; carried out by Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Hunyar (fnu). Completion date, 1956.

m. Investigation of the use of fibers in textile industry; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor Sommer (fnu). Completion date, 1955.

n. Production of furfural from lyes and extracts; start, 1952; carried out by VEB Zellstoffwerk Wittenberge under the scientific supervision of Dr. Jaeger (fnu). Completion date, 1953.

o. Investigation on the swelling and the dissolution mechanics of cellulose fibers; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor Schramek. Completion date, 1960.

p. Development of electrolytical methods for the determination of reducing components in cellulose material; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Zemisch (fnu). Completion date, 1956.

q. Investigation of ultrasonic disintegration in cellulose material; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor Schramek. Completion date, 1955.

r. Development of new polyester fibers; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Griehl. Completion date, 1960.

s. Comparison of terylene-polyester fibers and polyester fibers; start 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Griehl. Completion date, 1955.

t. Fractionization of synthetic spinning material; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Griehl. Completion date, 1954.

u. Development of spinning equipment for cotton and flax; start, 1952; carried out by the Institute for Fiber Technology in Pirna-Copitz under the scientific supervision of Professor Frenzel. Completion date, 1955.

v. Investigation of fiber location in textile webs; start, 1952; carried out by the Institute for Fiber Technology in Pirna-Copitz. Completed in 1953.

w. Development of mixed webs from rayon and [redacted] start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor Sommer; Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Schmauder (fnu); the Institute for Fiber Technology in Pirna-Copitz; the Institute for Textile Technology in Karl-Marx-Stadt under the scientific supervision of Eng. Simon. Completion date, 1954.

x. Development of glass fiber with a strength of up to 5 g/cm²; start, 1952; carried out by VEB Schott und Genossen. Completed in 1953.

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- y. Production of glass fibers with a strength ~~under 5 microns~~ under 5 microns; if possible a strength of 2 to 3 microns; start, 1952; carried out by VEB Carl Zeiss, under the scientific supervision of Dr. Klemm (fnu). Completion date, 1954.
- z. Investigation of use of glass fibers and silks for technical webs; start, 1952; carried out by the Institute for Fiber Technology in Pirna-Copitz under the scientific supervision of Dr. Bobeth (fnu). Completion date, 1955.
- aa. Development of glass fiber webs and yarns with special consideration of their use for crop binding yarn; start, 1952; carried out by the Institute for Fiber Technology in Pirna-Copitz under the scientific supervision of Dr. Bobeth. Completion date, 1955.
- ab. Development of methods to determine torsional resistance; start, 1952; carried out by Dresden Technical University under the scientific supervision of Liebig (fnu). Completion date, 1954.
- ac. Problems of Perlon dyeing and processing; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor ~~...~~, Professor Sommer and Dr. Schiffner (fnu); VEB Kunstfaserwerk Wilhelm Schwarza under the scientific supervision of Eng. Heilmann (fnu); VEB ~~...~~ dwerk Friedrich Engels in Premnitz under the scientific supervision of Eng. Lindner (fnu). Completion date, 1955.
- ad. Continuous spinning of synthetic fibers; start, 1952; carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Ludwig (fnu). Completion date, 1955.
- ae. Investigation of polarographic methods; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Moehring (fnu). Completion date, 1955.
- af. X-ray investigation of natural and synthetic fibers; start, 1952; carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Professor Schramek. Completion date, 1960.
- ag. Development of a "Technikum" for furfural chemistry; start, 1953; carried out by VEB Hydrierwerk Rodleben. Completion date, 1958.
- ah. Development of webs from glass fibers and silks with kation-active resins; start, 1953; carried out by VEB Fettchemie und Fewerk in Karl-Marx-Stadt under the scientific supervision of Dr. Frotscher (fnu). Completion date, 1954.
- ai. Polymerization and spinning experiments with Sebazin acid; start, 1953; carried out by the Institute for Organic Chemistry in Leipzig under the scientific supervision of Dr. Metzner (fnu). Completion date, 1955.
3. The following projects, started at unspecified dates, were in progress in mid-June 1954:
- a. ~~...~~ of Urlon in Molten organic salts and in molten inorganic salts. Carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Hunyar. Completion date, 1954.
- b. Development of new synthetic fibers from raw materials available in East Germany. Carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Ludwig. Completion date, 1955.

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c. Processing with steam pressure. Carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Ludewig. Completed 1955.

d. Further development of Orlon fibers under the cover name of "Welcrylen". Production on a semi-technical scale. Carried out by Agfa-Welfen, under the scientific supervision of Dr. Melms (fnu). Agfa-Welfen (formerly an SAG enterprise) now has a semi-technical installation for Welcrylen production with an output of about 30 tons per month.

e. Further development of Orlon fibers under the cover name of "TePe-1". Production on a semi-technical scale. Carried out by VEB Kunstseiden Premnitz under the scientific supervision of Dr. Fritsche (fnu). This enterprise has an installation for the production of TePe-1 fibers which started operations in 1954.

f. Development of Orlon silk. Production on a semi-technical scale. Carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Ludewig.

g. Fundamental research on the chemical processes occurring in the production of synthetic fibers. Carried out by the Institute for Fiber Research in Teltow-Seehof under the scientific supervision of Professor Schramek.

h. Development of waterproof coatings from rubber or plastic material for textile webs:

- 1) Development of air-tight webs.
- 2) Development of webs through which air can pass.

Carried out by the Institute for Textile Technology in Karl-Marx-Stadt under the supervision of Toegel (fnu).

i. Development of artificial leather through which air can pass. Carried out by VEB Kunstlederwerk Tannenbergstal under the supervision of Arze (fnu).

j. Development of infrared drying methods for perlen webs. Carried out by Textilveredlungswerk Reichenbach.

k. Development of a polyamide picker. Carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Beehringer; by Agfa-Welfen under Dr. Melms; and by the Institute for Textile Technology in Karl-Marx-Stadt under Walther (fnu).

l. Further development of a Trelon installation from semi-technical to large-scale technical production. Carried out by VEB Kunstfaserwerk Wilhelm Pieck in Schwarza under the scientific supervision of Dr. Ludewig. The installation in operation in Schwarza has an output of six tons of Trelon per month. For further development, 1.2 million DME were allotted for 1954.

m. Development of a continuous ^{dyeing} ~~dyer~~ [redacted]

- 1) Machine development. Carried out by VEB Konstruktion in Zittau under the supervision of Schwenke (fnu).
- 2) Procedure development. Carried out by the Institute for Textile Technology in Karl-Marx-Stadt under the scientific supervision of Toegel.

n. Development of a continuous textile printing procedure.

o. Development of a method for the group determination in polyamides. Carried out by the Fiber Research Institute in Teltow-Seehof under the scientific supervision of Dr. Kare (fnu).

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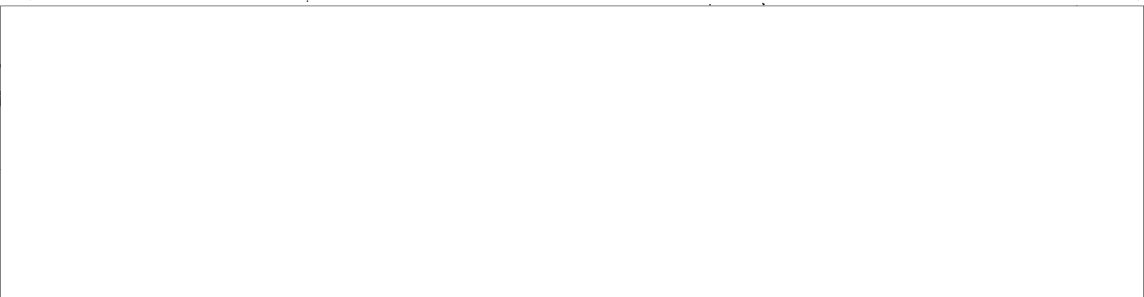
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p. Development of cable insulation paper with particular emphasis on insulation paper from glass fiber. Carried out by the Institute for Cellulose and Paper in Heidenau, under the scientific supervision of Eng. Dullin (fnu).

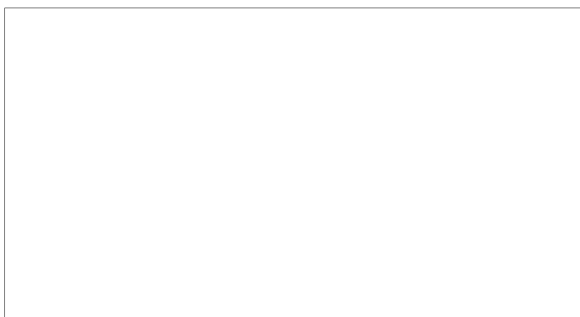
q. Development of a turbo-spinning machine. Carried out by the Institute for Textile Technology in Karl-Marx-Stadt under the scientific supervision of Eng. Simmen.

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r. Development of glued railroad ties. Carried out by the Institute for Wood Technology and Fiber Building Material in Dresden under the scientific supervision of Dr. Flemming.



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