000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

GENERAL HEADQUARTERS
G-2
FAR EAST COMMAND

File: 000.91

Date From Jan To Dec 49

Line No. 1 To

NOTICE

This contains information affecting the National defense of the United States within the meaning of the Espionage Act, 50 U.S.C. 31 And 32, as amended. The transmission, or the revelation of the contents in any manner, to an unauthorized person is prohibited by law; It is intended for American eyes only. It is imperative that these documents be safeguarded at all times, and that the material contained herein be treated with the utmost discretion. Under no circumstances shall possession thereof, or the information therein, be given to any personnel other than those whose duties specifically require knowledge thereof.

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

5303.0500 RESTRICTED Japan 37240

TB 2595 No. 4767
Cultures of the Organism Fusarium Moniliforme
T/I, G-2, GHQ, FEC Ltr ID ITT, Control No. CW 669, 9 Nov 49
none none 12 Dec 1949
1 Natural Resources Sec, SCAP Dr. Y. Nisikado

Forwarded herewith six (6) transfer cultures of the Organism Fusarium Moniliforme (Gibberella Fujikuroi) from the laboratory of Dr. Yoshikazu Nisikado as requested in reference letter above.

For the Assistant Chief of Staff, G-2:

J. H. POLK
Lt Col, GSC
Asst Exec, G-2

1 Inclosure:
6 Transfer Cultures Organism Fusarium Moniliforme

G-2 ADMIN File Copy
LJF/MHP/lac

RESTRICTED

DISTRIBUTION:
6 Cultures, ID, D/A

DAIT - CW 669
BID - 5303.0500

* * * *

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

5303.0500 RESTRICTED Japan

SW 2595 No. 4767
Cultures of the Organism Fusarium Moniliforme
T/1. G-2, GHQ, FEC Ltr ID ITT, Control No. CW 669, 9 Nov 49
none none 12 Dec 1949
1 Natural Resources Sec, SCAP Dr. Y. Hiishado

Forwarded herewith six (6) transfer cultures of the Organism Fusarium Moniliforme (Gibberella Fujikuroi) from the laboratory of Dr. Yoshikazu Hiishado as requested in reference letter above.

For the Assistant Chief of Staff, G-2:

J. H. POLK
Lt Col, GSC
Asst Chief, G-2

1 Inclosure:
6 Transfer Cultures Organism Fusarium Moniliforme

RESTRICTED

DISTRIBUTION:
6 Cultures, ID, D/A

DAIT - CW 669
BID - 5303.0500

* *

MEMO FOR RECORD:

1. Intelligence Division letter IDITT, subj, "Cultures of the Organism Fusarium Moniliforme", dtd 9 Nov 49, requests the ID be furnished via Air Mail 6 transfer cultures of the Organism Fusarium Moniliforme (Gibberella Fujikuroi) from the laboratory of Dr Yoshikazu Hiishado, Director Chara Institute for Agricultural Research, Kurashiki, Japan.

2. a. Targets Branch contacted the entomologist of Natural Resources Section (Mr Roberts) who in turn initiated a letter to Dr. Hiishado requesting the above mentioned cultures be delivered to Tokyo ready for Air Mail shipment.

b. Arrangements for reimbursement for the cultures were made with G-2 Exec Gp (Capt Hawley)

3. This OCS 17 fwds to the ID six (6) transfer cultures of Organism Fusarium Moniliforme.

* *

See 3518A
G-2 Action

MHP
12-8800
DAIT
26-0321
DEC 1949

ADCO COLITE MINDA S-D
SEKISUI JUSHI

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

4408.0202 RESTRICTED Japan

TB 2383 No. 4575
Japanese Research on Nitroguanidine and Related Explosives
T/I, G-2, GHQ Ltr, MID 400.112, 23 May 47, Control No. S-711, Subject: Foreign Scientific Research & Development
1 April, May 49 29 Sept 1949
1 Technical Intelligence Detachment TID interviews with Japanese scientists

Forwarded herewith six (6) copies of Technical Intelligence Detachment report entitled "Japanese Research on Nitroguanidine and Related Explosives," dated 15 Sept '49.

During April and May 1949 Technical Intelligence Detachment investigators interviewed the following personnel regarding the synthesis and use of nitroguanidine and related compounds for military explosives;

1. Mr. Ryo KAWAI, former engineering officer, Tokyo 2nd Army Arsenal.
2. Mr. Sakai ISHIDA, former engineer in the Research Laboratory of the Tokyo 2nd Arsenal.
3. Ex-Admiral Michizo SENDO, former head of the Research Department, 2nd Arsenal, Hiratsuka.
4. Dr. Kiichiro SUGINO, Professor of Applied Electro-Chemistry, Tokyo Institute of Technology.

RESTRICTED

This report contains a summary of the research conducted before and during the war by the Japanese Army, the Navy, and the Tokyo Institute of Technology on nitroguanidine and related compounds. It also contains a list of the published reports on the subject by Dr. SUGINO. In addition abstracts of two research reports on the preparation of guanidine nitrate and nitroguanidine are included. These reports were written by scientists of the Tokyo Institute of Technology.

NOTE: Recommend that one (1) copy of this report be directed to Lt Col Sam C. Russel, Spec Proj Br, Research & Development Group, Logistics Div, Washington, D. C.

For the Assistant Chief of Staff, G-2:

J.H. POLK
Lt Col, GSC
Asst Exec, G-2

DISTRIBUTION:
6 MID, D/A
1 Ord O, GHQ
1 G-2 Lib

DAIT - 569

BID - 8700., 8800.2000, 8800.3000, 7507., 4408.0202
Control No. S-711

RESTRICTED

30065 G-2 ADMIN File Copy

833 for (F)

27
600.91

DECLASSIFIED
Authority 795056
By AR NARA Date 12-30-11

FTR No. 6363 GT S

RESTRICTED

RESTRICTED

Control No. S-111
FIR - 8100.1, 8800.5000, 8800.3000, 1201.1, 4408.0505

DATE - 5ep

DISTRIBUTION:
2 MID, D/A
1 Org C. GHQ
1 G-5 Fil

1 G-5, GHQ
1 Tech Intel Div
Asst Exec, G-5
Lt Col, GSC
N.R. Fork

FOR the Assistant Chief of Staff, G-5:

G-2

NOTE: Recommend that one (1) copy of this report be directed to Lt Col Sam C. Massey, Spec Proj Engineering & Development Group, Logistics Div, Washington, D. C.

30082 G-S ADMIN FILE COPY

This report contains a summary of the research conducted prior and during the war by the Japanese Army, the Navy, and the Tokyo Institute of Technology on nitrogen-containing compounds. It also contains a list of the burlished combustible and explosive compounds. In addition abstracts of two research reports on the explosive DA. SHIONO. Those reports were prepared by Japanese nitrogenous chemists in the Tokyo Institute of Technology.

Forwarded herewith are six (6) copies of Technical Intelligence Department report entitled "Japanese Research on Nitrogenous and Related Explosives", dated 21 Sept 1945.

During WWII and WW I the Technical Intelligence Department investigators interviewed the following personnel regarding the explosive and use of nitrogenous and related compounds for military explosives:

1. Mr. Hio KAMAI, former engineering officer, Tokyo Sand Vacuum Arsenal.
2. Mr. Saburi ISHIDA, former engineer in the Research Laboratory of the Tokyo Sand Arsenal.
3. Ex-Admiral Michiro SEKDO, former head of the Research Department, Sand Arsenal, Hiratsuka.
4. Dr. Michiro SUGIRO, Professor of Applied Electro-Chemistry, Tokyo Institute of Technology.

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

36006

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff

MISD

APO 500
30 December 1949

SUBJECT: Research Activities of Nobuji Sasaki - Request for Additional Data on

TO : Flag Intelligence Officer, Staff
Commander Naval Forces, Far East
Navy No. 1165

1. References are:

a. Letter, Department of Navy, Bureau of Ordnance, (Re 6 a)-HMT:vd, subject as above, 28 July 1949.

b. First Indorsement, basic letter (reference a), Chief of Naval Operations, Serial 8440P32, 11 August 1949.

c. Letter, Commander Naval Forces, Far East, CNFE/A8-2, Serial 3783, subject as above, 24 August 1949.

2. Reports 1-8 on Formation of Hydrogen Peroxide by OHARA and SASAKI, requested in references, paragraph 1 above, have been forwarded to Director of Intelligence, Department of Army for transmittal to the Department of Navy. This completes action on request made in references, paragraph 1 above, and is the last report on technical intelligence that can be supplied due to recent manpower cuts which practically eliminate Technical Intelligence Detachment of G-2.

For the Assistant Chief of Staff, G-2:

WEC
W. E. CRIST
Colonel, GSC
Executive Officer

G-2 File Copy

WEC/GMF/vcr

MILITARY INTELLIGENCE DIVISION
U.S. 30 DEC 1948 DECLASSIFIED

RESTRICTED

25
000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff

APO 500
20 December 1949

MISC

SUBJECT: Research Activities of Nobuji Sasaki - Request for Additional Data on

TO : Flag Intelligence Officer, Staff
Commander Naval Forces, Far East
Navy No. 1165

1. References are:

a. Letter, Department of Navy, Bureau of Ordnance, (No 6 a)-NMT:vd, subject as above, 28 July 1949.

b. First Indorsement, basic letter (reference a), Chief of Naval Operations, Serial 00A0P92, 11 August 1949.

c. Letter, Commander Naval Forces, Far East, CNFE/A8-2, Serial 3783, subject as above, 24 August 1949.

2. Reports 1-6 on Formation of Hydrogen Peroxide by ONAKA and SASAKI, requested in reference, paragraph 1 above, have been forwarded to Director of Intelligence, Department of Army for transmittal to the Department of Navy. This completes action on request made in reference, paragraph 1 above, and is the last report on technical intelligence that can be supplied due to recent manpower cuts which practically eliminate Technical Intelligence Detachment of G-2.

For the Assistant Chief of Staff, G-2:

W. E. CHIST
Colonel, GSC
Executive Officer

Military Intelligence Division
RECEIVED
30 DEC 1949
G-2

RESTRICTED

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

36006

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff

APO 500
30 December 1949

MISD

SUBJECT: Research Activities of Nobuji Sasaki, Request for Additional Data on (040013)

TO : Director of Intelligence
General Staff, U. S. Army
Washington 25, D. C.

1. References are:

a. Letter, Department of Navy, Bureau of Ordnance, (re 6 a)-HMT:vd, subject as above, 28 July 1949.

b. First Indorsement, basic letter (reference a), Chief of Naval Operations, Serial 8440P32, 11 August 1949.

c. Letter, Commander Naval Forces, Far East, CNFE/A8-2, Serial 3783, subject as above, 24 August 1949.

2. Attached herewith final reports 1-8 on Formation of Hydrogen Peroxide by OHARA and SASAKI as requested in references, paragraph 1 above, for forwarding to Department of Navy.

3. Over-all reduction in G-2 personnel to meet recently directed manning level requires an early reduction in strength of the Theater Technical Intelligence Detachment. This reduction will practically limit work of this detachment to ICF reporting only, and will result in a concurrent impairment of our future ability to collect and disseminate technical information on Japan.

For the Assistant Chief of Staff, G-2:

WEC
W. E. CRIST
Colonel, GSC
Executive Officer

1 Incl.
Folder - Rpts 1-8
Formation of Hydrogen Peroxide fr
Water Vapor

G-2 File Copy

WEC/GMF/vcr

FILE

25

000.91

RESTRICTED

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff

AFO 500
20 December 1949

MISD

SUBJECT: Research Activities of Nobuji Sasaki, Request for Additional Data on (04003)

TO : Director of Intelligence
General Staff, U. S. Army
Washington 25, D. C.

1. References are:

a. Letter, Department of Navy, Bureau of Ordnance, (re 6 a)-NET:vd, subject as above, 28 July 1949.

b. First Indorsement, basic letter (reference a), Chief of Naval Operations, Serial 22L0792, 11 August 1949.

c. Letter, Commander Naval Forces, Far East, CNFE\A8-2, Serial 3783, subject as above, 24 August 1949.

2. Attached herewith final reports 1-8 on Formation of Hydrogen Peroxide by OHARA and SAGAKI as requested in references, paragraph 1 above, for forwarding to Department of Navy.

3. Over-all reduction in G-2 personnel to meet recently directed manning level requires an early reduction in strength of the Theater Technical Intelligence Detachment. This reduction will practically limit work of this detachment to ICC reporting only, and will result in a concurrent impairment of our future ability to collect and disseminate technical information on Japan.

For the Assistant Chief of Staff, G-2:

1 Incl.
Folder - Rpts 1-8
Formation of Hydrogen Peroxide in
Water Vapor

W. H. CHIST
Colonel, GSC
Executive Officer

G-2 INTELLIGENCE
30 DEC 1949
INCOMING

RESTRICTED

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff

MISD

APO 500
8 November 1949

SUBJECT: Research Activities of Nobuji Sasaki-request for additional data on.

TO: Commander Naval Forces, Far East
Navy No. 1165
ATTENTION: Flag Intelligence Officer

1. Reference is Navy Request Number 040013.

2. Overall reduction in G-2 personnel to meet recently directed manning levels for FY 1950 require the early dissolution of the Technical Intelligence agency. Consequently, work now being accomplished by that agency on the above request is necessarily terminated.

For the Assistant Chief of Staff, G-2:

/s/ W. E. CRIST
Colonel, GSC
Executive Officer

MEMO FOR RECORD:

1. Basic is COMNAVFE ltr, File CNFE/A8-2, dtd 24 Aug 49, which forwards Chief of BuOrd ltr (re6a)-HMT;vd, dtd 28 July 49, w/1st Ind, CHO Ser 8440P32, dtd 11 Aug 49, fwded for action DNI request No. 040013 (suspense date: 10 Oct 49 at DNI) for infor on a Jap process for manufacturing hydrogen peroxide by electrodeless ring discharge. Process was first reported by GHQ, TID, 13 Nov 48. BuOrd states that process appears to have several advantages over conventional means, especially as to purity of product and requests that further details be investigated, particularly to obtain info on yield, critical size and details of apparatus, and reliability of the process to produce H_2O_2 continuously.

2. 1st Ind to COMNAVFE fwds info obtained by TID in answer to the specific Navy requirements; complete answer to be fwded upon completion of translations now in progress and verification of data in the Japanese reports, estimated date of completion, 15 Nov 49.

TNS
26-5368

X 330.2 Manpower

(25)
000.91

G-2 File Copy

MISD/TNS/FGB/df/GMF/vcr

FILE

DECLASSIFIED
Authority 795066
By MR NARA Date 11-30-11

FAR EAST COMMAND
GENERAL HEADQUARTERS
Military Intelligence Section, General Staff

002 GA
APO 500
8 November 1951

MEMO

SUBJECT: Research Activities of Army Chemical-Corps for additional data on.

C-5

Life Copy

MISD\JWS\MOB\16\CME\cv

TO: Commander Naval Forces, Far East
Navy No. 1187
ATTENTION: Naval Intelligence Officer

MEMO FOR RECORD:

1. Basic is COMNAVFE ltr, File CNFE\8A-5, dtd 31 Aug 51, which forwards Chief of Army ltr (Secy)-TMT:by, dtd 25 July 51, w/1st Ind, CMO Ser 8\\70535, dtd 11 Aug 51, Army Project No. 0\\00113 (Japanese date: 10 Oct 51 as DNI) for finding on a gas process for manufacturing hydrogen peroxide by electrodialysis using diaphragms. Process was first reported by CMO, TID, 13 Nov 48.

2. Report efforts that process appears to have several advantages over conventional means, especially as to purity of product and reduces fuel input, defaults be investigated, particularly to obtain info on yield, critical size and defaults of apparatus, and reliability of the process to produce H_2O_2 conformously.

3. Ist Ind to COMNAVFE ltrs info obtained by TID in answer to the specific Navy requirements; complete answer to be made upon completion of translations now in progress and verification of data in the Japanese reports, estimated date of completion is Nov 51.

SMT

58-2398

C-5

For the Assistant Chief of Staff, G-2:

1. Reference is Navy Request Number 01003.

2. Overall Regulation in G-5 personnel to have recently directed intelligence agency. Consequently, work was begun accomplished by that agency on the whole report is necessarily terminated.

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

MISD 1st Ind

G-2, GENERAL HEADQUARTERS, FAR EAST COMMAND, APO 500, 30 September 1949

TO: Commander, United States Naval Forces, Far East, Navy No. 1165

1. Herewith is report on "Research Activities of Nobuji Sasaki," which partially fulfills Department of Navy request Number 040013.

2. Additional information will be furnished upon completion of translations and verification of data contained in Japanese reports. This information will be forwarded about 15 November 1949.

For the Assistant Chief of Staff, G-2:

/s/ W. E. CRIST
Colonel, GSC
Executive Officer, G-2, SCAP

3 Incls:
1. n/c
Added 2 Incls
2. Report, Research Activities of Nobuji Sasaki
3. Microfilm of Japanese Reports

FILE

MEMO FOR RECORD:

1. Basic is COMNAVFE ltr, File CNFE/A8-2, dtd 24 Aug 49, which forwards Chief of BuOrd ltr (Re6a) -HMT;vd, dtd 28 Jul 49, w/1st Ind, CNO Ser 8440P32, dtd 11 Aug 49, fwded for action DNI request No. 040013 (suspense date: 10 Oct 49 at DNI) for info on a Jap process for manufacturing hydrogen peroxide by electrodeless ring discharge. Process was first reported by GHQ, TID, 13 Nov 48. BuOrd states that process appears to have several advantages over conventional means, especially as to purity of product and requests that further details be investigated, particularly to obtain info on yield, critical size and details of apparatus, and reliability of the process to produce H_2O_2 continuously.

2. 1st Ind to COMNAVFE fwds info obtained by TID in answer to the specific Navy requirements; complete answer to be fwded upon completion of translations now in progress and verification of data in the Japanese reports, estimated date of completion, 15 Nov 49.

RESTRICTED

TNS 26-5368

X 015 (25) 000.91

RESTRICTED

8352-35

DISPATCHED
SEP 1946

MEMO FOR RECORD:

1. Basic is COMNAVEE ltr, File GNRE\A8-S, dtd 24 Aug 46, which forwards Chief of Bureau ltr (Aeds) -HMT:bv, dtd 23 Jul 46, w\1st Ind, CNO ser 8440823, dtd 11 Aug 46, twded for action DNI report No. 01000 (unsaveable date: 10 Oct 46 at DNI) for info on a gas process for manufacturing hydrogen peroxide by electrolysis using discharge. Process was first reported by GHQ, FEC, 13 Nov 48. Bureau states that process appears to have several advantages over conventional means, especially as to purity of product and temperature that twice defatts be investigated, particularly to obtain info on yield, critical size and details of apparatus, and reliability of the process to produce H_2O_2 continuously.

2. 1st Ind to COMNAVEE ltr, File GNRE\A8-S, dtd 24 Aug 46, which forwards Chief of Bureau ltr (Aeds) -HMT:bv, dtd 23 Jul 46, w\1st Ind, CNO ser 8440823, dtd 11 Aug 46, twded for action DNI report No. 01000 (unsaveable date: 10 Oct 46 at DNI) for info on a gas process for manufacturing hydrogen peroxide by electrolysis using discharge. Process was first reported by GHQ, FEC, 13 Nov 48. Bureau states that process appears to have several advantages over conventional means, especially as to purity of product and temperature that twice defatts be investigated, particularly to obtain info on yield, critical size and details of apparatus, and reliability of the process to produce H_2O_2 continuously.

3. 1st Ind to COMNAVEE ltr, File GNRE\A8-S, dtd 24 Aug 46, which forwards Chief of Bureau ltr (Aeds) -HMT:bv, dtd 23 Jul 46, w\1st Ind, CNO ser 8440823, dtd 11 Aug 46, twded for action DNI report No. 01000 (unsaveable date: 10 Oct 46 at DNI) for info on a gas process for manufacturing hydrogen peroxide by electrolysis using discharge. Process was first reported by GHQ, FEC, 13 Nov 48. Bureau states that process appears to have several advantages over conventional means, especially as to purity of product and temperature that twice defatts be investigated, particularly to obtain info on yield, critical size and details of apparatus, and reliability of the process to produce H_2O_2 continuously.

W. R. CHIRI
Colonel, USA
Executive Officer, G-3, SCAP

2 Incls:
1. n\c
Added 2 Incls
3. Report, Research Facilities of Morgil Branch
2. Microfilm of Japanese reports

FILE

DECLASSIFIED
Authority 795066
By NARA Date 12-30-11

1st Ind

GSIN

SCAP GENERAL HEADQUARTERS, FAR EAST COMMAND, APO 500, 20 September 1946

TO: Commander, United States Naval Forces, Far East, Navy No. 1128

1. Referred is report on "Research Facilities of Morgil Branch," which Japanese Ministry Finance Department to Navy request Number 01000.

2. Additional information will be furnished upon completion of translation and assessment of Japanese reports.

3. Microfilm of Japanese reports will be furnished later when translations are completed.

FOR the Assistant Chief of Staff, G-3:

W. R. CHIRI
Colonel, GSC
Executive Officer, G-3, SCAP

2 Incls:
1. n\c
Added 2 Incls
3. Report, Research Facilities of Morgil Branch
2. Microfilm of Japanese reports

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

26333 9682

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff
Technical Intelligence Detachment

APO 500
28 September 1949

ADDITIONAL DATA ON RESEARCH ACTIVITIES OF NOBUJI SASAKI

1. Yield of H_2O_2 Per KWH of Electricity: The research of Sasaki and Ohara did not progress beyond the laboratory stage. Incidental to experiments to determine the mechanism of the reaction and the effect of various conditions, some measurements of yield vs power were made. In all cases the power consumption was measured from primary current. The KWH/Kg. yields given below are calculated from tables appearing in published reports and should serve only as indications of the magnitude of the obtainable yields.

a. Electrodeless Ring Discharge: One two measurements of yield vs power were reported. The best yield was 1152 KWH/Kg. for 52.5% H_2O_2, obtained with the minimum power necessary to produce the red-glow discharge.

b. Discharge between Aluminum Electrodes: Yields varying from 269 KWH/Kg. for 55.1% H_2O_2 to 533 KWH/Kg. for 54.0% H_2O_2 were obtained under widely varying conditions.

2. Critical Size of Apparatus; Detailed Description of Apparatus: No experiments were conducted to determine the critical size of the apparatus. Dr. Sasaki states that neither he nor Ohara has sufficient knowledge of the theory of ring discharge to estimate it. He believes that a larger size apparatus using a higher vapor pressure may eventually be used to obtain an increased yield and higher concentration of H_2O_2. Details of the apparatus are given in the published reports mentioned below. When an 85mm diameter discharge tube was used, the discharge took place along the inner surface, leaving a dark space about 40mm in diameter along the tube axis. Sasaki planned to use an 85mm diameter tube surrounding a co-axially placed 40mm inner tube, with the annular space to be subjected to ring discharge.

3. Reliability of Apparatus to Produce H_2O_2 Continuously: The yield and concentration will decrease with time of operation since the surface temperature inside the trap will rise with increase in thickness of the deposit. For the continuously uniform production of high grade H_2O_2, continued production of a low temperature surface and continuous removal of the solid product are essential.

4. Additional Information:

a. The research of Dr. Sasaki and Dr. Ohara on the preparation of hydrogen peroxide by electrode and electrodeless ring discharge was carried out during the period 1938 - 1940. All important results were published in a series of eight (8) papers which appeared in Nippon Kagaku Kaishi (J. Chem. Soc. Japan) as follows:

G-2 File Copy

RESTRICTED

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

RESTRICTED

GENERAL HEADQUARTERS
FAR EAST COMMAND
Military Intelligence Section, General Staff
Technical Intelligence Detachment

APO 500
28 September 1949

ADDITIONAL DATA ON RESEARCH ACTIVITIES OF NOBUI SASAKI

1. Yield of H_2O_2 Per KWH of Electricity: The research of Sasaki and Ohara did not progress beyond the laboratory stage. Incidental to experiments to determine the mechanism of the reaction and the effect of various conditions, some measurements of yield vs power were made. In all cases the power consumption was measured from primary current. The KWH/Kg. yields given below are calculated from tables appearing in published reports and should serve only as indications of the magnitude of the obtainable yields.

a. Electrodless Ring Discharge: Ore two measurements of yield vs power were reported. The best yield was 1122 KWH/Kg. for 72.5% H_2O_2, obtained with the minimum power necessary to produce the red-glow discharge.

b. Discharge between Aluminum Electrodes: Yields varying from 269 KWH/Kg. for 55.1% H_2O_2 to 575 KWH/Kg. for 54.0% H_2O_2 were obtained under widely varying conditions.

2. Critical Size of Apparatus Detailed Description of Apparatus: No experiments were conducted to determine the critical size of the apparatus. Dr. Sasaki states that neither he nor Ohara has sufficient knowledge of the theory of ring discharge to estimate it. He believes that a larger size apparatus using a higher vapor pressure may eventually be used to obtain an increased yield and higher concentration of H_2O_2. Details of the apparatus are given in the published reports mentioned below. When an 85mm diameter discharge tube was used, the discharge took place along the inner surface, leaving a dark space about 10mm in diameter along the tube axis. Sasaki planned to use an 85mm diameter tube surrounding a co-axially placed 10mm inner tube, with the annular space to be subjected to ring discharge.

3. Reliability of Apparatus to Produce H_2O_2 Continuously: The yield and concentration will decrease with time of operation since the surface temperature inside the trap will rise with increase in thickness of the deposit. For the continuously uniform production of high grade H_2O_2, continuous collection of a low temperature surface and continuous removal of the solid product are essential.

4. Additional Information:

a. The research of Dr. Sasaki and Dr. Ohara on the production of hydrogen peroxide by electrode and electrodless ring discharge was carried out during the period 1938 - 1940. All important results appeared in a series of eight (8) papers which appeared in Nippon Kagaku Kaishi (Jour. Jap. Chem.) as follows:

G2
DISPATCHED
30 SEP 1949

RESTRICTED

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

60, 1161, 1170 (1939)
61, 17, 257, 265, 359, 569, 657 (1940)

Microfilms of these articles (Incl 2) are forwarded with this letter. Minor errors which appear in some of the tables are being checked. Translations and any additional information will be forwarded when completed, on or about 15 November 1949.

b. During the war, the Japanese Navy asked Dr. Sasaki to industrialize his process. However, he concluded that because of the inferior low pressure technique of Japanese industry, it would not be feasible and consequently made no serious effort toward this end.

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

29360

T/B 2369 4563

Electronics, Optics, Telecommunications, Vol. 1 of Report 7
Ltr. MID 400.112, 23 May 1947, Control No. S-711
T/I, G-2, GHQ Subj: Foreign Scientific Research and Development
22 Sept 1949
See report June, July, Aug. 1949
G-2, GHQ
1 Technical Intelligence Detachment TID investigations of manufacturing plants

Forwarded herewith five (5) copies of "Electronics and Telecommunications Manufacturers in Japan," Vol. I of Report 7, dated 1 September 1949, in the series entitled ELECTRONICS, OPTICS, TELECOMMUNICATIONS. Earlier reports in the series have been forwarded previously. GHQ Technical Intelligence Detachment investigations are on a continuing basis to be concluded by January 1950 and reports will be forwarded as investigations are completed.

Purpose of the investigations is to determine the current status of principal manufacturers of electronics and telecommunications goods in Japan with respect to the following: Location and condition of plants and facilities; organization for business and technical operations; level and intensity of research and development; nomenclature, cost, quantity and quality of goods manufactured; identity and history of key personnel; consignment of the manufactured products to markets in Japan or to foreign markets.

Manufacturing plants of the following three companies are covered in this report:

1. Teikoku Tsushin Kogyo K.K., manufacturers of carbon resistors, radio speakers, and audio transformers. Present research is concerned with development of VHF-FM radio for police use.

RESTRICTED

2. SHIBUYA ROENTGEN SEISAKUSHO, which is engaged in the manufacture of kenotron tubes, X-ray tubes, X-ray apparatus and accessories.

3. NIPPON COLUMBIA K. K., which manufactures radio equipment (radio broadcast receivers, dynamic speakers, magnetic pick-ups, power and output transformers), phonographs and phonograph records.

For the Assistant Chief of Staff, G-2:

J. H. WOLK
Lt Col, GSC
Asst Exec, G-2

DISTRIBUTION:
5 MID D/A
1 FEAF
1 GHQ Sig O
1 CCS
2 G-2 Lib

DAIT - 569, 1487

BID - 4407.0000, 7308.0000, 7317.0000, 8300.0000

23

000.91

G-2 ADMIN File Copy

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

8600 SECRET Japan

22647

TB 2176 4425

Status Report-Japanese Research in Nuclear Physics and Related Fields
Ltr with 350.1TS, 23 May 47 Control No 5-711, subj: Foreign Scientific Research and Development

j January 1949 21 July 1949

1 Economic and Scientific Section SCAP * See below

Forwarded herewith one copy ESS Status Report dated 1 May 1949, "Japanese Research in Nuclear Physics and Related Fields and Stockpiles of Radioactive Materials in Japan"

* The information contained in this report was extracted from the files of ESS-Special Project Branch, pertaining to semi-annual reports of research institutions, biographies of Japanese scientists, radioactive stockpile correspondence, requests and permits from Japanese firms for the use of radioactive materials and from reports of surveillance visits made by Special Projects Branch and Technical Intelligence Detachment personnel.

The stated purpose of the subject report is to present the status, as of 1 January 1949, of authorized projects in the fields of nuclear physics research, cosmic ray studies, use of radioactive materials and separation of stable isotopes. The report includes data on the stockpiles of radioactive material in Japan, a list of firms that have been engaged in the treatment of radioactive ores, a list of firms that

SECRET

SECRET TB 2176 4425
2

22647

have been authorized to use radioactive materials in manufacturing operations and an alphabetical list of the Japanese scientists engaged in nuclear and cosmic ray research or in closely related fields.

For the Assistant Chief of Staff, G-2:

File

J. H. POLK
Lt Col, GSC
Asst Exec, G-2

DISTRIBUTION:
1 MID, D/A
1 ESS, Sp Projects Br
~~1 JCS, D/A~~ (made by ESS)
~~2 MID D/A~~

BID - 8600.0100; 8600.0200; 8600.0300; 8600.0400 8600.0500; 8600.0600.

DAIT - 569, 1014, 1015.

G-2 Admin File Copy

SECRET

18

000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

DISPATCHED
27 JUL 1949

Admin File Copy

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

4301.0700 UNCLASSIFIED USSR

TB 1906 No 4094
Scientific Research In USSR, Sakhalin Base of USSR Academy of Sciences
T/I, G-2, GHQ

June 1949 22 June 1949
1 G-2 Foreign Liaison Sub-Section Soviet newspaper

189651

Forwarded herewith one (1) copy G-2 Foreign Liaison translation No. 426 dated 3 June 1949, "Scientific Research In USSR, Sakhalin Base of USSR Academy of Sciences", an extract from the Soviet daily newspaper, "Sovetskiy Sakhalin" published in YUZHNO-SAKHALINSK, 27 May 1948.

This article entitled "Scientific Center of Sakhalin," written by B. BUTOVISKY, Assistant Director, Sakhalin Base USSR Academy of Science refers briefly to various experimental projects which are being conducted by young scientists in SAKHALIN to improve agricultural and economic standards. Among the projects mentioned are barley hybridizing, improvement in feed qualities of pastures, forest restoration, fruit and berry experimentation and manufacture of coke briquettes.

For the Assistant Chief of Staff, G-2:

J. H. POLK
Lt. Col., GSC
Asst Exec, G-2

UNCLASSIFIED

G-2 Admin File Copy

DISTRIBUTION:
1- MID D/A
2- MISD
1- P & E, T/I
1- Opns, T/I
1- CI Div

Concur
R.L.
for I.S.F.

DAIT 569
BID 4301.0700

FILE

(17)
000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

4301.0700 UNCLASSIFIED USSR

TM 1906 No 4094
Scientific Research In USSR, Sakhalin Base of USSR Academy of Sciences
T/I, G-2, GHQ

1 G-2 Foreign Liaison Sub-Section June 1949 22 June 1949
Soviet newspaper

Forwarded herewith one (1) copy G-2 Foreign Liaison translation No. 426 dated 3 June 1949, "Scientific Research In USSR, Sakhalin Base of USSR Academy of Sciences", an extract from the Soviet daily newspaper, "Sovetskiy Sakhalin" published in YUZHNO-SAKHALINSK, 27 May 1949.

This article entitled "Scientific Center of Sakhalin," written by B. BUTOVISKY, Assistant Director, Sakhalin Base USSR Academy of Science refers briefly to various experimental projects which are being conducted by young scientists in SAKHALIN to improve agricultural and economic standards. Among the projects mentioned are barley hybridizing, improvement in feed qualities of pastures, forest restoration, fruit and berry experimentation and manufacture of coke briquettes.

For the Assistant Chief of Staff, G-2:

J. H. POLK
Lt. Col., GSC
Asst Exec, G-2

UNCLASSIFIED

DISTRIBUTION:
1- MID D/A
2- MISD
1- P & M, T/I
1- Opns, T/I
1- CI Div

DAIT 559
MID 4301.0700

General
Pt. 3.7.

ORIGINATING AGENCY
29 JUN 1949
G-2

FILE

G-2 Army Air Force

1 copy

000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

8800.3000 UNCLASSIFIED Japan

TB 2286 4514

Laboratory Surveillance Report (2nd Partial Report)
T/I, G-2, GHQ Ref: AID 400.112, 23 May 47, Control No. S-711.
Subj: Foreign Scientific Research & Development
May, June 1949 8 Aug 1949

1 Technical Intelligence Detachment, G-2, GHQ First hand investigation by TID of Japanese schools, laboratories etc.

Forwarded herewith four (4) copies of LABORATORY SURVEILLANCE REPORT (2nd Partial Report), dated 29 July 1949. During May and June 1949 Technical Intelligence Detachment investigators visited thirteen Japanese educational institutions, research institutions and industrial plants for the purpose of determining nature and progress of present research activities, contemplated future projects, compliance with current directives, condition of equipment, and research potentialities. An evaluation of each laboratory was made in regard to efficiency of research staff, research or development potential, unusual or outstanding research personnel and projects, efforts contributing towards economic rehabilitation of Japan and recommendations for further investigation and surveillance. The thirteen targets covered in this report are:

1. Fukushima University, Faculty of Economics, Shimizu-mura
2. Niigata University, Faculty of Engineering, Nagaoka
3. Sawafuji Electrical Co., Ltd., Tokyo
4. Shizuoka University, Faculty of Literature and Science, Shizuoka
5. Commodity Science Laboratory, Tokyo
6. The First Culture Branch of Tohoku University, Sendai

UNCLASSIFIED

UNCLASSIFIED TB 2286 3000
2

7. The Second Culture Branch of Tohoku University, Sendai
8. Tohoku Pharmaceutical University, Sendai
9. Tokyo Metropolitan Industrial Promotion Institute, Tokyo
10. Mechanical Laboratory, Agency of Industrial Science and Technology, Ministry of International Trade and Industry, Tokyo
11. 4th Division of Mechanical Laboratory, Agency of Industrial Science and Technology, Ministry of International Trade and Industry, Tokyo
12. Yamagata University, Faculty of Letters and Science, Yamagata
13. Yamagata University, Faculty of Engineering, Yonezawa

LABORATORY SURVEILLANCE REPORT (First Partial Report), dated 4 June 1949, was forwarded by TB 1861 No. 4210 on 10 June 1949.

For the Assistant Chief of Staff, G-2:

DISTRIBUTION:
4 MID D/A
3 G-2 Lib
1 ESS S & T

DAIT 569
BID - 8800.3000, 7500.

OCB for B

J. H. POLK
Lt Col, GSC
Asst Exec, G-2

UNCLASSIFIED

(1)

000.91

G-2 Admin File Copy

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

4408.0105 UNCLASSIFIED Japan

TB 2297 No. 4517
High Polymer Research
T/I, G-2, GHQ

Ltr MID 400.112, 23 May 1947, Control No. S-711
Subject: Foreign Scientific Research & Development
24 Feb-24 May 1949 12 Aug 1949
1 Technical Intelligence Detachment, G-2, GHQ See report

Forwarded herewith four (4) copies of Technical Intelligence Detachment report, HIGH POLYMER RESEARCH, dated 31 July 1949, which covers in considerable detail the work done by the Japanese in the field of high polymer chemistry.

From 24 Feb to 24 May 1949, Technical Intelligence Detachment investigators interviewed fifty-two persons at five universities, four government and municipal laboratories, and three laboratories operated by the Society of High Polymer Chemistry. Installations visited were in the Tokyo, Kyoto, Osaka, Nagoya and Kobe areas.

This report covers silicones, rubber, polyvinyl alcohol, polyvinyl acetate, Amalin, testing apparatus, basic studies on polymers, and a few new and improved polymers. Little or no work of significance has been done in such fields as phenolic, urea, ion-exchange, or cellulose resins. With the exception of Vinylon (a polyvinyl alcohol fiber of excellent wearing characteristics), Amalin (a polyamide similar to Nylon), and some basic studies on polymerization, adhesion, and rubber, not much of practical value has been done. Japanese industry has, in general, concentrated on production while neglect-

ing to cooperate with university and government laboratories where the bulk of the research on high polymers has been done.

Many of the best scientific minds in Japan are concentrating on problems in the field of high polymer chemistry, but in most cases they have been hampered by lack of equipment, chemicals and money. Japanese research in the field lags several years behind that of United States, but rapid progress is being made.

For the Assistant Chief of Staff, G-2:

J. H. POLK
Lt Col, GSC
Asst Exec, G-2

DISTRIBUTION:
4 MID D/A
1 G-2 Lib
1 ESS
3 QM, FEC

DAIT - 569
BID - 4408.0105, 4415.0400, 4416.0202, 4417. 7504., 7506., 8700., 8800.

AUG 16 1949

G-2 Admin File Copy

(1)
000.91

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11

CONFIDENTIAL

8710.0000 Japan

TB 2268 4504
Japanese Experiments in Resistance to Cold
T/I, G-2, GHQ FEC Ltr MID 400.112, 23 May 47, Control No S-711, subj: Foreign Scientific Research & Development
See report 11 August 1949
1 Technical Intelligence Detach., G-2 Two Japanese research reports

1. Forwarded herewith eight (8) copies of above-named Technical Intelligence Detachment report, dated 1 Aug 1949. This book contains translations of two Japanese research reports relating to the effects of extremely cold environments on man and methods of minimizing such efforts. The report includes numerous charts, tables and photographs. Conclusions drawn from extensive research conducted by a special detachment of the Japanese Kwantung Army Medical Department near the Manchuria-Siberian border from 1939 to 1944. Among the topics discussed in this report are the following: nature, causes, and development of cold injuries; personal differences in susceptibility to cold; factors comprising cooling power and their measurement; other factors which lead to casualities; parts of the body most susceptible to injury; symptoms and treatment of the various degrees of injury; cold indurance power and factors comprising it; comparison and improvement of cold endurance power by psychological, physical and material means (including clothing, individual warming devices, rations and tents); methods of preventing sporadic and mass outbreaks of injuries; death by freezing, including its definition, development, symptoms and treatment. Especially interesting are the

CONFIDENTIAL

CONFIDENTIAL

TB2268 4504
2

methods of determining physical differences in susceptibility to cold by means of finger-freezing, blood agglutination, circulation, and other tests and also ways of increasing resistance. A simple device alled a cold sensation meter is described in the section on cooling power. This meter reportedly measures the combined cooling effect of wind and temperature and expresses the result in terms of air temperature under windless conditions. Throughout the report the Japanese word "tosho" has been translated literally as 'freeze injury' in order to conform with the distinction made by the author between the mild and severe forms of frostbite.

2. Request following distribution on two copies this document:
1 copy to R&D Board, Office Surgeon General, U.S.
1 copy to R & D Board, QMC, U.S.

For the Assistant Chief of Staff, G-2:

J.H. POLK
Lt Col, GSC
Asst Exec, G-2

AUG 16 1949

DISTRIBUTION:
8- MID D/A
2- G-2 Lib
1- MED SEC, GHQ
1- QM, GHQ

00091 (1) Revised

G-2 Admin File Copy

DECLASSIFIED
Authority 795006
By AR NARA Date 11-30-11