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CENTRAL INTELLIGENCE GROUP
NEW WAR DEPARTMENT BUILDING
WASHINGTON, D. C.

Date of Info: 9 October 1946
Evaluation: F-3

MANCHURIA: Continental Research Institute

SOURCE: Japanese scientist, prominent member of the faculty of the Institute.

1. Before the end of the war the Continental Research Institute at Changchun had 200 Japanese research workers, 40 of whom were qualified scientists and project directors. Some 40 research workers and 20 qualified scientists still remain.

2. The Japanese evacuated the Continental Research Institute when the Soviets entered Changchun, and the Chinese took over the administration of the institute. About 10% of the equipment was taken by the Soviets. The present damage, which amounts to 70%, was done by the Chinese Communists. The Changchun Institute, the leading branch of the Continental Institute, was primarily devoted to research on industrial developments, medicine, and veterinary surgery. The Harbin Branch was part of a museum. The Mukden Branch worked primarily on serums, although some industrial research had been planned.

3. The Economic Section of the Taking Over Commission is now administering the Continental Research Institute. Source believes that another organization (Chinese National Resources Commission) will take over soon. Meanwhile, the Japanese research workers who have been conscripted to stay have been given no directives and no aid.

4. During the 8th Route Army occupation, the Communists, who had planned to remove the Continental Research Institute to Harbin, were able to take away much equipment and many valuable instruments.

5. Most of the work at present is on production of dextrose, glucose and calcium bromide nutritive innoculations and on the production of veneer board. The railroad has placed a large order for boards to replace windows.

6. Source claims to be staying voluntarily because of the illness of his wife, but states that most of the research workers wish to return to Japan.

(ZCA Note: Certain terms following are unfamiliar but have been queried rather than deleted as they may be mistranslations of scientific terms and may be recognized readily by those who are familiar with the subjects listed.)

The remaining paragraphs are a list of the personnel of the Institute:

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7. OMURA, Takuichi (Director) (died on March 5th, 1946)
   a. Civil Engineering, Hokkaido University.
   b. President of the South Manchurian Railway.
   c. Planning of Railway System of Korea and Manchuria.

8. SHIKATA, Masuzo (Vice Director) (Professor) (Dr. of Agriculture)
   a. 1919 Agricultural Chemistry, Department of Agriculture, Tokyo University.
      1921 Research on colloid chemistry in the Technical University, Berlin, Germany.
      1922 Research on electrochemistry in the Charles' University, Czechoslovakia (Prague)
   b. 1923 Assistant professor of the chemistry of forest products in the Department of Agriculture, Kyoto University.
      1925-1942 Professor of the chemistry of forest products in the Department of Agriculture, Kyoto University.
      1942 Vice Director of the Institute.
   c. Invention of "Polarograph" with Professor Y. Heyrovsky in Charles' University, Czecholovakia.
      1923-1942 Studies on the reduction potential of organic compounds. Proposal of Negativity Law of organic compounds. Application of polarograph to microanalyses.
      1925-1942 Researches on the preparation of wood pulp and preparation of pulp from other sources especially bagasse and mulberry stem and bark.
      1925-1940 Utilization of high bog type tundra earth from Sakhalin especially the industrial preparation of tex (?) from tundra.
      1927-1942 Research on the electric boundary layer disturbance (i.e. effect of alternating electric current on colloids). This research has been extended to the measurement of low as well as high frequency electric wave, and thus the absorption spectra of electromagnetic waves of colloid systems have been investigated. By this research we are able to establish the general aspect of the state of water absorbed by the colloidal as well as fibrous materials.
   d. The planning and organization of the research system.
      Study for the establishment of rayon pulp industry in Manchuria from the standpoint of science.
      The first industrial trial of craft pulp preparation in Manchuria at the Soya Bean Stalk Pulp Company in Kaiyuan.

9. ARIMA, Junzo (Dr. of Science) (Professor of organic chemistry)
   a. 1919 Chemistry, Department of Science, Tokyo University
   b. 1920-1934 Lecturer, and afterwards professor in Medical Department of Keio University
      1935-1945 Professor at the Institute. (Chief of the Laboratory of Organic Chemistry and Chief of the Oil Mill). (Probably pressing seeds for oil).
   c. 1. Research on the components of plants.
      2. On the synthesis of cumaranon. (Coumarin)
   d. 1. Research on the chemical composition of morphine.
      2. Research on the oil plants of Manchuria and their industrial manipulation.
      3. Research on the dry distillation of pine root.

10. YAMADA, Takeji (Professor of Civil Engineering).
   a. 1920 Civil Engineering, Department of Technology, Kyoto University.
   b. 1920-1938 Civil Engineer in Tokyo and Yokohama, chiefly working with water supply and sewage problems.
      1939 Professor at the Institute. (Chief of the Second Laboratory of Civil Engineering which concerns water supply and sewage.)
   c. 1. Research on sewage treatment in Manchuria.
      2. On the application of bentonite on sewage.
      3. Examination of water supply in Manchuria.

11. FUJITA, Shigeaki (Professor of electrical engineering)
    a. 1920 Electrical Engineering, Department of Technology, Kyushu University.
    b. 1921 Engineer of the Electrical Institute of Department of Communication.
       1927 Director of the Kukuoka Branch of the Electrical Institute.
       1944 Professor at the Institute (Chief of the Laboratory of Electrical Engineering).
    c. 1927-1944
       1. Research on the vibration of electric power meter.
       2. Velocity of cooling through heat radiation.
       3. Magnetic separation of iron ore.
          (He is an authority on the magnetic separator.)

12. YOSHIMURA, Jun (Dr. of Science, Professor of inorganic chemistry)
    a. 1923 Chemistry in the Department of Science, Tokyo University.
    b. 1923- Member of the Institute of Physics and Chemistry.
       1935 Lecturer of the Department of Science.
       1935 Professor at the Institute (Chief of the Laboratory of Inorganic Chemistry.)
    c. 1. Absorption spectrum of rare earth elements.
       2. Research of rare alkali elements.
       3. Research on radio activity of minerals.
    d. 1. Research on rare element mineral. He discovered Fergusonite, Thorogummite, Betaforite and Yuxenite in Manchuria.
       2. On the component of "black sand" gold ore in Manchuria.
       3. Investigation of natural salt resources of Manchuria.
       4. The production of Spark plugs for motor cars.
       5. Research on a substitute for percussion caps. (Research on silver acetylide, C_2Ag_2).

13. YAMASKI, Kiichiro (Professor of combustion and machinery.)
    a. 1922 Arsenal Engineering, Department of Technology, Tokyo University.
    b. 1922 Professor Japanese Aeronautical School.
       1925 Research member of military arsenal.
       1927 Engineer of the Fuel Institute of Department of Commerce and Industry.
       1938 Professor at the Institute. (Chief of the Laboratory of Combustion.)
    c. 1. The effective burning of low grade coal.
       2. Gas analysis of chimney air.
       3. Invention. Continuous water gas generator.
    d. 1. Research on the rational (?) combustion method of home-heating apparatus.
       2. Research on the standard stove for home use.
       3. Research on the qualities of Manchurian coal.
       4. Research on the heat control of factories.

14. KAWAKAMI, Koso (Professor of Biochemistry. Dr. of Agriculture)
    a. 1920 Morioka College of Agriculture and Forestry.
    b. 1920 Assistant in the Institute of Physics and Chemical Research.
       1935 Professor at the Institute. (Chief of the Biochemical Laboratory.)
    c. 1920- 1935 Research on vitamin A. Vitamin A sold by the Institute of Physical and Chemical Research has been investigated by him. Vitamin A has been obtained in crystalized state by him, which was the first successful attempt in the world to isolate vitamin A in crystaline form.

d. 1. Table of the vitamin content of foods.
2. On the absorption spectrum of oil.
3. He is one of the chief authorities on human nourishment.
4. Tartaric acid preparation from wild grapes in Manchuria.

15. MIZOSHITA, S- (Professor of Fuel. Dr. of Science).
a. 1925 Chemistry, Department of Science, Kyoto University.
b. 1925 Assistant, Department of Science, Kyoto University.
1927 Member of the Central Institute of the Manchurian Railway Company.
1938 Professor at the Institute, (Chief of the Laboratory of Fuel.)
c. 1. Research on Cryptomeria oil (?).
2. On the synthesis and separation of phenol.
3. On the utilization of anthracene oil.
4. On lower temperature tar.
5. Preparation of gasoline from oil shale.
d. 1. On the gas formation of soft wax oil of shale oil.
2. On the gas formation of coal.
3. On poly-olein formation from butane.
4. On the birch oil of Manchuria.
5. High-grade lubricating oil from bean oil.

16. ICHISE, Raishin (Professor of physical chemistry)
a. 1920 Chemistry, Department of Science, Tokyo University.
b. 1921 Professor of the Third High School.
1941 Professor at the Institute.
c. 1. On behavior of colloids on the electrode.
2. On alternating current electrolysis.
d. On the indirect electrolysis of sodium sulphate to obtain NaOH and sulphuric acid.

17. NINOMIYA, Mamoru (Professor of Agricultural Chemistry)
a. 1928 Agricultural Chemistry, Department of Agriculture, Tokyo University.
b. 1928- Member of the Central Institute of Manchurian Railway Company.
1937
1937 Assistant Professor at the Institute .
1941 Professor at the Institute (Chief of Laboratory of Fibre).
c. 1. On alcohol extraction of soy beans .
2. 1937 Research on kaoliang as a starch resource.
d. 1. Construction of the oil factory in the Institute.
2. Utilization of apricot kernel.
3. On tussaber (?) silk, a new method was invented to strengthen the silk.

18. MAEDA, Minoru (R) (Professor of Civil Engineering)
a. 1928 Agricultural Chemistry, Department of Agriculture, Tokyo University.
b. 1928-1938, Member of the Central Institute of Manchurian Railway Company.
1938 Assistant professor at the Institute.
1941 Professor at the Institute. (Chief of the 1st Laboratory of Civil Engineering.)
c. On simplifying the preparation of asphalt emulsifier.
d. 1. Concrete formation in winter in Manchuria. The formation of concrete in winter is a very important problem. This research covers the relation between temperature, composition, and strength.
2. Research on soil cement. In Manchuria, sand and gravel are not abundant. This research covered the strength of soil cement. It was found that humic acid is a component which lowers the strength of soil cement.
3. "Research on aerodrome surfacing" in Manchuria.
4. Substitutes for Portland cement.
5. Utilization of oil shale dust as the substitute for asphalt in pavement materials.

19. YOKOYAMA, Tatsuo (Professor of Electrochemistry)
    a. 1927 Chemical Engineering, Department of Technology.
    b. 1927 Assistant at Tokyo Technological College.
       1937 Lecturer at the Tokyo Technological College.
       1937 Professor at the Institute. (Chief of the Laboratory of Electrochemistry.)
    c. 1. On the water solubility of sodium calcium-magnesium-silicate glass.
       2. On the corrosiveness of fluor compounds on glass.
       3. Raffination of aluminum at low temperatures.
    d. 1. On the synthesis of benzene from acetylene.
       2. The formation of lead calcium alloy from metallic lead and carbide.
       3. On the regeneration of the galvanic cell.

20. ODA, Saburo (Professor of Inorganic Chemistry).
    a. 1929 Chemistry, Department of Science, Tokyo University.
    b. 1929 Assistant at Hiroshima Literature and Science University.
       1932 Assistant professor at Hiroshima University of Literature and Science.
       1937 Assistant professor at the Institute.
       1941 Professor at the Institute.
    c. 1. On the thermodynamic research on the reversible electric cell.
       2. On the thermodynamic research on potassium chloride.
       3. On the thermal decomposition of thiocyan salts of copper, silver, mercury, and lead.
    d. 1. On the Roentgen research of aluminum shale in Manchuria.
       2. On the Roentgen research of benthite of Manchuria.

21. FUKUWATARI, Shichiro (Professor of Chemistry of Forest Products.)
    a. 1929 Agricultural chemistry, Department of Agriculture, Kyoto University.
    b. 1929 Assistant in the Chemical Institute , Kyoto University.
       1937 Assistant professor at the Institute.
       1941 Professor at the Institute. (Chief of the Laboratory of the Chemistry of Forest Products.)
    c. 1. On the effect of alternating electric current on colloidal systems.
       2. On the absorption spectra of the absorbed water of wood fibre.
    d. 1. On the pulp produced by Manchurian lumber.
       2. On the water supply to the pulp industry of Manchuria.
       3. On the research of craft pulp preparation.
       4. On furfural preparation from pulp industry.
       5. On furfural and phenol resin.
       6. On measurement of the mechanical properties of Manchurian woods.
       7. On ply wood preparation from Manchurian reeds.
       8. On ply wood preparation for airplanes.

22. MORI, Toru (Professor of Architecture, Dr. of Technology)
    a. 1930 Architecture, Department of Technology, Tokyo University.
    b. 1930-1941 Research in Tokyo University.
       1941 Professor at the Institute. (Chief of the Laboratory of Architecture.)
    c. 1. On treatment of lumber to make it fire-resistent.
    d. 1. On brick.
       2. On concrete buildings.
       3. On roofing material.
       4. On the physical properties of lumber for building.
       5. On saving steel in reinforced concrete buildings.
       6. On building foundations.
       7. On the establishment of limit gauge tolerances in architectural construction.

23. TSUNEMATSU, Fujio (Professor of Air Defense)
    a. 1930 Pharmacy, Department of Medicine, Tokyo University.
    b. 1941 Professor at the Institute. (Chief of the Laboratory of Air Defense.)
    c. Research on gas mask.
        1. Anti-diming method of glass.
        2. On the filter layer composition.
        3. Examination of gas masks for civilian use in all of Manchuria.

24. ITO, Kentaro (Professor of Fuel Chemistry)
    a. 1931 Chemistry, Department of Science, Tokyo University.
    b. 1931 The institute of Physical and Chemical Research.
        1937 Assistant Professor at the Institute.
        1942 Professor at the Institute.
    c. 1. On the oxidation of sulpher dioxide by the silent electric discharge.
        2. Heat-cracking of heavy oil.
        3. Hydrogenation under high pressure.
    d. 1. On the mechanism of decomposition in the presence of hydrogen under high pressure.
        2. Research on coal ash.
        3. Swelling of coal.

25. INOUE, Shukichi (Professor of Ceramics, Dr. of Engineering)
    a. 1926 Kyoto pharmacy high school.
    b. 1926 Central Institute of the Manchurian Railway.
        1937 Professor of Pharmacy, Department of the Hsinking Medical College.
        1944 Professor at the Institute. (Chief of the high temperature experimental room.)
    c. 1. On protarbic and lisalbic acids.
        2. Coagulation of milk.
    d. 1. On the physical properties and compositions of glass.
        2. On the preparation of glass fibre.
        3. Research on sulphate glass.

26. KIZUKA, Shizuo (Professor of Chemistry of Animal Products)
    a. 1933 Veterinary, Department of Agriculture, Tokyo University.
    b. 1935 Engineer of Animal Husbandry of Miyagi Province.
        1938 Assistant professor at the Institute.
        1945 Professor at the Institute.
    c. Research on the utilization of cattle products.
    d. 1. On the preparation of photographic gelatin.
        2. On the tanning of the hide with kaoliang wine mash.
        3. On the storage of meat.

27. IKEMORI, Kikaku (Assistant professor of Machinery)
    a. Machinery, Department of Technology, Nippon University.
    b. Fluid dynamics.

28. YAMASAKI, Shigeaki (Assistant professor of Inorganic Chemistry)
    a. Chemistry, Department of Science, Tohoku University.
    b. Research on the resources of potassium and its preparation.

29. IWAKIRI, Mitsuo (Assistant Professor of organic chemistry).
    a. Chemistry, Department of Science, Tohoku University.
    b. Organic synthesis.

30. ISHIWATA, Tatsurokuro (Assistant Professor of Zoology) (Now in Harbin)
    a. Zoology, Department of Science, Hokkaido University.
    b. Zoology, especially fish.

31. [illegible], Toshio (Assistant Professor of Architecture)
a. Architecture, Department of Technology.

32. KOGA, Masuo (Assistant Professor of City Water Supply)
a. Pharmacy, Nagasaki Medical College.
d. Researches on City Water Supply.

33. SAITO, Kenji (Assistant Professor of Architecture)
a. Architecture, Department of Technology, Nippon University.
b. Researches on construction dynamics.

34. MIZUTANI, Hisashi (Assistant Professor of Machinery)
a. Machinery, Department of Technology.
b. Machinery, especially piston rings. Management of machine shops.

35. NAKAKE, Midori (Assistant Professor of Civil Engineering)
a. Technical High School of Nippon University

36. MURAKAMI, Shosuke (Assistant Professor of Fermentation).
a. Agricultural Chemistry, Department of Agriculture, Kyoto University.
b. Chemistry of fermentation.
Preparation of lactic acid from kaoliang wine.

37. KAWASHIMA, Kyuichiro (Assistant Professor of Architecture)
a. Architecture, Sendai Technical High School
b. Architecture, especially anti-air-raid buildings.

38. SADAO, Yoso (Assistant Professor of Organic Chemistry)
a. Chemistry, Department of Science, Tokyo University).
b. Organic chemistry, especially organic synthesis.

39. KITAOKA, Ryukichi (Assistant professor of fuel chemistry)
a. Chemistry, Department of Science, Kyoto University.
b. Fuel Chemistry, especially dry distillation.

40. TONOGI, Arimitsu (Assistant Professor of Machinery)
a. Machinery, Department of Technology, Nippon University.
b. Machinery fine measurement.

41. KUBOTA, Mitsuo (Assistant Professor of Inorganic Chemistry)
a. Middle school. Passed state examination for High school teacher in Chemistry.
b. Analytical chemistry.

42. SAKURAI, Toshio (Assistant professor of Lumber Technology)
a. Forestry Engineering. Department of Agriculture Kyoto University.
b. 1. Research on the physical properties of wood.
2. Research on plywood.

43. MATSUOKA, Yoshiaki (Assistant professor of pharmacy)
a. Tokyo pharmacy high school.
b. Cultivation of ergot. Inventor of the artificial cultivation of ergot.

44. FUJINO, Kohai (Assistant Professor of Fermentation)
a. Fermentation industry, Department of Technology, Osaka University.
b. Isolator of Eremothecium Ashibii, var Hsingking, Vitamin B2 forming micro-organism (?). Vitamin B2 was produced industri[illegible] in Mukden.

58. IGARASHI, Isao (Assistant Professor of Animal Husbandry)
a. Veterinary, Department of Agriculture, Tokyo University.
b. Utilization of cattle products.

59. KATO, Misashi (Assistant professor of Metallurgy)
a. Metallurgy, Hsinking Technical College.
b. Physical properties of metal.

60. SHIBATA, Kiyoshi (Assistant professor of forest chemistry).
a. Chemistry, Harbin Technological High School.
d. Dry distillation of birch oil.

61. MATSUMOTO, Seizo (Assistant professor of Electrochemistry).
a. Agricultural chemistry, Department of Agriculture.
b. Indirect Electrolysis of sodium sulphate.

Remarks: There were also 133 Japanese secretaries and assistants and about 280 Chinese workers.