LIST OF RESEARCH SUBJECTS
OF
THE BALNEOLOGICAL LABORATORY
OKAYAMA UNIVERSITY

Directed by

PROF. DR. YOSHIO OSHIMA

1946～1953

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I. Lectures Delivered by Prof. Y. Oshima

Catalytic Activity of the Thermal Waters of Misasa.

Changes in the Chemical Composition of the Thermal Waters of Misasa.

Radioactive Springs and Misasa Hot Springs.
   Annual Meeting of the Okayama Medical Assoc., June, 1947.

On the Internal and External Uses of the Radon Springs.

Radon Contents of the River- and Ground-Waters in Misasa Spa.
   Meeting of the Balneological Society of Japan, May, 1948.

Medical Studies on Thoron Springs.
   (1) Effect of Thoron Spring Bath on the Vital Staining of Subcutaneous Connective Tissue of the Bathed Mice.

Radioactivity of the Skin after Radon Spring Bath.

On the Radioactive Springs of Thorium Series.

Radioactivity of Kurinodake Hot Springs.

Medical Studies on Thoron Springs.
   (2) Blood Picture after Thoron Spring Bath.

Studies on Vitriol Springs.
   (5) Acid Alum Vitriol Waters and Membrane Potential of the Skin.

Studies on Vitriol Springs.
   (7) Effect of the Vitriol Waters upon Oxido-Reductase Activity.
Catalytic Activities of the Vitriol Waters and their Biological Significance.

Meeting of the Balneological Society of Japan. Apr., 1951.

Mechanism of the Action of Thermal Baths.

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1951.

Changes in the Sensitivity to Histamine during a Series of Thermal Baths.


Balneological Studies Using Radioactive Isotopes.

(1) On Sodium Sulfate Spring Bath.


"Indice de Nutrition" of Thermal Waters.

Annual Meeting of the Okayama Medical Assoc., June, 1952.

Effects of pH and Sodium Chloride Content on the Biological Action of Sulfated Waters.


Effects of the Internal Use of Misasa, Hamamura, and Tottori Spring Waters upon Alimentary Hyperglycemia in Rabbits.


Medical Study on Trace Elements.

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1949.


A Study on the Incidence of Struma in the Central District of Tottori Prefecture.

(2nd Report).

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1950.

Medical Studies on Chondroitin Sulfate (1st Report).

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1950.

Medical Studies on Chondroitin Sulfate (2nd Report).

Annual Meeting of the Japan. Society of Internal Medicine, Apr., 1951.

Medical Studies on Chondroitin Sulfate (3rd Report).
Annual Meeting of the Japan. Society of Internal Medicine, Apr., 1952.
Medical Studies on the Chemical Constituents of Connective Tissue (4th Report).
Annual Meeting of the Japan. Society of Internal Medicine, Apr., 1953.

II. Contributions by Prof. Y. Oshima

A Filter Paper Reaction of Thermal Waters.
Medicine & Biol. 9 (6), 1946.

Catalytic Activity of the Thermal Waters of Misasa.

Effect of Radioactive Waters on the Resistance of Tadpoles against Acid.

Effect of Radioactive Thermals on Phagocytosis.

A Supplementary Report on the Filter Paper Reaction of Thermal Waters.

Balneotherapy of Rheumatic Diseases.
Rinsho Naika Shonika, 2 (3), 1948.

Body Conditions that favor the Occurrence of Thermal Crisis.

Studies of Radioactive Springs (1–8).

On the Internal Use of Radon Springs.
The Tokyo Medical Journal. 66 (8), 1949.

On the Internal and External uses of Radon Springs.

What is the Use of Thermal Springs?
Okayama I.Z., 61 (6–7), 1949.

Clinical Effects of Radioactive Springs.
Onsen Bunka, (12), 1949.

Studies of the Radioactive Springs. (9–19).

(9) Radioactivity of Misasa Hot Springs.
(10) Radon Contents of the Ground- and River-Waters in Misasa Hot Springs.
(13) Resorption and Elimination of Radon by Radioactive Thermal Bath.
(14) Blood Picture after Radioactive Thermal Bath.
(15) Effect of Radioactive Thermal Bath on Prothrombin Clotting Time.
(16) Takata Reaction and Radioactive Thermal Bath.
(17) Blood Sedimentation Rate and Radioactive Thermal Bath.
(18) Complement Content in Serum and Radioactive Thermal Bath.
(19) Radon Spring and Phagocytosis

Studies of the Radioactive Spring. (22-23).
(22) Thoron Spring and its Stimulating Effect on Subcutaneous Connective Tissue.
(23) Radioactivity of the Skin after the Radioactive Thermal Bath.

Studies of the Radioactive Springs.
(24) The Effect of Thoron-Spring Bath on Rotter's Reaction.

(25) Radioactivity of Kurinodake Hot Springs.
(26) The Effect of Thoron Spring Bath on Leucocyte Picture.
(27) Medical Effects of the External Application of Monazite.

The Membrane Potential of the Living Human Skin and the Mineral Waters.

Catalytic Activity and Biological Effects of Acid Vitriol Waters.

Studies on Vitriol Springs.
(27) In-Vitro Effect of Vitriol Waters on Oxido–Reductase.
Studies on Vitriol Springs.

(8) Blood Catalase Level after the Internal Use of Vitriol Waters.

A New Explanation to the Mechanism of the Action of Sulfated Spring Bath, Especially of Sodium Sulfate Spring Bath.

Mechanism of the Action of Thermal Baths.
Shibukawa Igaku, 2, 1951.

Seasonal Difference in the Effect of Thermal Bath on Blood Catalase.

Sensitivity to Histamine during a Series of Thermal Baths.

Balneological Studies Using Radioactive Isotopes.

(1) An Explanation to the Mechanism of the Action of Sulfated Spring Bath.

Balneotherapy.
Igakushoin, 1951.

Effect of the Internal Use of Misasa (Radon Spring), Hamamura (Sulfated Muriated Calcium Spring), and Tottori (Sulfated Muriated Spring) Spring Waters upon the Alimentary Hyperglycemia in Rabbits.

On the Whitish Turbidity of Sulfur Spring.

Studies on Vitriol Springs.

(3) On the Copper, Zinc, Nickel, and Cobalt Contents of Blood after the Internal Use of Vitriol Water "Fujino".

Indice de Nutrition and Oxidation-Reduction Potential of Mineral Waters.

Medical Studies on Chondroitin Sulfate (1st Report).
Medical Studies on Chondroitin Sulfate (2nd Report).

A Guide to the Medical Treatments of Neuralgia.
Shindan to Chiryo, 40 (9), Sept., 1952.

Studies on Serum Mucoprotein. (1st Report).
Serum Mucoprotein Level in Normal and Pathological States of Japanese.

Medical Studies on Chondroitin Sulfate (4th Report).

Effect of Atmospheric Temperature on Takata Reaction in Serum.

Spa Treatment of Neuralgia.
Konnichi-no-Rinsho, 1 (5), 1953.

III. Lectures Directed by Prof. Y. Oshima

1. Balneological Chemistry

Meeting of the Balneological Society of Japan, Apr., 1950.

T. Ashizawa: On the Formation of Boric Waters.
Meeting of the Balneological Society of Japan, Apr., 1950.

Meeting of the Balneological Society of Japan, Apr., 1950.

T. Ashizawa: Medical and Chemical Study on Acid Vitriol Water.
Meeting of the Balneological Society of Japan, Apr., 1950.

M. Mifune: Effects of Pumping-up of Hot Spring on Surrounding Hot Springs.
Annual Meeting of the Okayama Medical Assoc., June, 1950.

T. Ashizawa: Chromatographic Analysis of Metals by Organic Reagents.

N. Saito: Studies on Radioactive Sinter Deposits of Misasa Hot Springs. (I)
T. Ashizawa: Chemical Composition of Deposits.

N. Saito
T. Ashizawa: Studies on Radioactive Sinter Deposits of Misasa Hot Springs. (III)
Relations Between Country Rock, Mineral Waters and Sinters.

T. Ashizawa: Colorimetric and Volumetric Determination of Calcium by a New Reagent.

The 4th Annual Meeting of the Chemical Society of Japan, Apr., 1951.

The 4th Annual Meeting of the Chemical Society of Japan, Apr., 1951.

M. Mifune: On Turbidity of Sulfur Spring.
Meeting of the Balneological Society of Japan, Apr., 1951.

T. Ashizawa: On the Boric Acid and Fluoride Content of Hot Springs in Tottori Prefecture and on a New Colorimetric Method of Calcium.
Symposium of Geochemistry, July, 1951.

S. Umemoto: Geochemical Studies of Misasa Hot Springs. (I)
Variation of Chemical Composition and Others in "Hisui-no-Yu". (1)


S. Umemoto: Geochemical Studies of Misasa Hot Springs. (II-IV)
Variation of Chemical Composition and Others in "Hisui-no-Yu". (2-4)
The 5th Annual Meeting of the Chemical Society of Japan, Apr., 1952.

M. Mifune: Chemical Composition of Misasa, Sekigane and Kaike Hot Springs, Tottori Prefecture.
Meeting of the Balneological Society of Japan, July, 1952.

T. Sugihara (et al.):
On Chloride Content of Ground Waters in Island of Setonaikai.
Symposium of Geochemistry, Nov., 1952.

Ordinary Meeting of the Japan Society for Analytical Chemistry, Feb., 1953.

S. Umemoto: Geochemical Studies of Misasa Hot Springs. (VI-VIII)
On the Relations between Several Radioactive Elements.
The 6th Annual Meeting of the Chemical Society of Japan, Apr., 1953.

T. Sugihara: Studies of the Aging of Mineral Waters. (I)
Changes in Radon Content of Thermal Waters of Misasa after Flowing Out.
The 6th Annual Meeting of the Chemical Society of Japan, Apr., 1953.

S. Umemoto: Studies on the Chloride and Sulfate Content of Well Waters and the Amounts of Chloride and Sulfate Fixed to the Soil in the Mineral Spring Districts. (7)
Possibility of Chemical Prospecting of Mineral Spring.
Ordinary Meeting of Chugoku and Shikoku Branch of the Chemical Society of Japan, May, 1953.

T. Sugihara: Studies of the Aging of Mineral Waters. (II)
Changes in the Silicate Content of Thermal Waters of Misasa after Flowing Out.
Ordinary Meeting of Chugoku and Shikoku Branch of the Chemical Society of Japan, May, 1953.

S. Umemoto: Chemical Studies on Thermal Algae. (I)
Ordinary Meeting of Chugoku and Shikoku Branch of the Chemical Society of Japan, May, 1953.

M. Mifune:
Ordinary Meeting of Chugoku and Shikoku Branch of the Chemical Society of Japan, May, 1953.

K. Kimura:
Studies on the Chloride and Sulfate Content of Well Waters and the Amounts of Chloride and Sulfate Fixed to the Soil in the Mineral Spring Districts. (8)
Matsuzaki, Togo and Asozu Hot Springs, Tottori Prefecture, Japan.
Symposium of Geochemistry, Oct., 1953.
2. Balneological Medicine

H. Morinaga: Effect of Internal Use of Misasa Hot Springs on Diuresis.


Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Dec., 1946.


H. Morinaga: Radioactive Springs and Permeability of Erythrocytes.


M. Sotozono: Studies on the Internal Use of the Acid Vitriol Water (Fujino Spring).


The Internal Use of Fujino Spring and Hemopoietic Action.

The 57th Annual Meeting of Okayama Medical Assoc., June 1947.

H. Morinaga: Radioactive Springs and Blood Sugar.

The 58th Annual Meeting of the Okayama Medical Assoc., June, 1948.

M. Sotozono: The Internal Use of Mineral Waters and Recovery Curve of Anemia.

The 58th Annual Meeting of the Okayama Medical Assoc., June, 1948.

H. Morinaga: Radioactive Springs and Uric Acid Metabolism.


H. Morinaga: Frequent Thermal Baths and Blood Catalase.


Studies on the Internal Use of Toyokawa and Mitsuishi Spring Waters.

S. Onda: An Experimental Study on the Effect of Mineral Waters upon the
Movement of Isolated Rabbit Intestine.

H. Morinaga: Effect of the Internal Use of the Radioactive Waters on Alimentary
Hyperglycemia. (2nd Report).

H. Morinaga: The Internal Use of Shirahama Hot Springs (Wakayama Prefecture)
and Alimentary Hyperglycemia.
Meeting of the Balneological Society of Japan, Apr., 1950.

S. Onoda: Radioactive Thermal Bath and Skin Temperature.
The 15th Annual Meeting of the Japan. Balneo-Climatol. Assoc.,
June, 1950.

S. Onoda T. Ashizawa: Relation between the Mottled Tooth, Struma and Fluorine Content of
Mineral Water.
The 15th Annual Meeting of the Japan. Balneo-Climatol. Assoc.,
June, 1950.

The Internal Use of Fujino Spring Water and Gastric Acidity.

Effect of Acid Vitriol Waters upon the Movement of Isolated
Rabbit Intestine.
The 15th Annual Meeting of the Japan. Balneo-Climatol. Assoc.,
June, 1950.

M. Sotozono: Radioactive Thermal Bath and Oxidation-Reduction System. (2nd
Report).
Effect of Radioactive Thermal Bath on Blood Glutathion.
The 60th Annual Meeting of the Okayama Medical Assoc., June, 1950.

Y. Tanaka T. Tange: A Statistical Investigation on the Menstruation in Women Living
in Misasa Spa and its Vicinity.
The 60th Annual Meeting of the Okayama Medical Assoc., June, 1950.

S. Onoda: Seasonal Difference in the Effects of Thermal Bath on Blood Catalase
and Serum Choline-Esterase.
(8) Internal Use of Vitriol Water and Blood Catalase.
(9) Effects of Internal Use of Yanahara Spring Water on Gastric Acidity and Recovery of Anemia.

M. Sotozono: Radioactive Thermal Bath and Vitamine C Metabolism.

Y. Tanaka: Effects of Thermal Baths on the Sexual Circle of Rats.


S. Onoda: Protective Effect of Thermal Baths Against Total Body X-Irradiation.
The 61th Annual Meeting of the Okayama Medical Assoc., June, 1951.

Conference of the Chugoku-Shikoku Branch of the Japan Society of Internal Medicine, Oct., 1951.

M. Sotozono: Thermal Bath and Vitamine C Metabolism.

Inquiry into the Mode of the Action.

Y. Tanaka T. Takatori: Balneotherapeutic Experiences in Gynecology.

Y. Tanaka: The Effects of Thermal Bath upon the Motility of the Living Rabbit's Fallopian Tube and Uterus.

T. Yokota: Balneological Studies Using Radioactive Isotopes.
(2) Influence of Physico-Chemical Properties of Bath Water on the Transition of Sulfate Ion into the Body Across the Skin.

Y. Tanaka T. Takatori: Balneotherapy of Adnexitis and Colpitis.

Y. Tanaka: Thermal Bath and Sexual Function of Women.

Y. Ueda T. Yokota: Effect of the Internal Use of Radioactive, and Sulfate Waters upon the Bile Excretion.

S. Onoda: Effects of Thermal Baths Against Total Body X-Irradiation.


(33) Effect of Radioactive Thermal Bath on Potassium, Calcium, Sodium, Chloride and Protein Levels in Serum.
The 63th Annual Meeting of the Okayama Medical Assoc., June, 1953.

S. Kishida & H. Morinaga: Effect of Thermal Bath on Alimentary Hyperglycemia.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1953.

M. Sotozono: Cutaneous Reaction and Body Temperature in the Tuberculous Chest Patients.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1947.

S. Onda: A Case of Familial Hemolytic Anemia.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Nov., 1948.

H. Morinaga: Ulcer Points in Peptic Ulcer.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Nov., 1948.

S. Onda: A Study on the Incidence of Struma in the Central District of Tottori Prefecture, Japan.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Nov., 1948.

S. Onoda: Seasonal Changes in the Average Erythrocytes Sedimentation Rate in Misasa, Tottori Prefecture.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1949.

H. Morinaga: Seasonal Changes in the Gastric Acidity.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1949.

M. Sotozono: Backache and Sawada’s Pyruvic Acid Reaction in the Urine.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1950.

S. Onoda: A Case of Lung Cyst.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1951.

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1951.
T. Yokōta: A Statistical Observation on Cholecystopathia.
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1952.

M. Sotozono: A Clinical Study on Heart-Burn.

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1952.

S. Onda: A Case of Familial Hemolytic Anemia. (2).
Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1953.

The 60th Annual Meeting of the Okayama Medical Assoc., June, 1950.

Conference of the Chugoku-Shikoku Branch of the Japan. Society of Internal Medicine, Oct., 1950.

The 63th Annual Meeting of the Okayama Medical Assoc., June, 1953.

IV. Contributions Directed by Prof. Y. Oshima

1. Balneological Chemistry

T. Ashizawa: Chemical Studies on Misasa Hot Springs. (1–8).
(1) Natural Common Salt Discovered in Misasa Hot Springs.
(2) Composition of a Deposit by Boiling of a Thermal Water of Misasa Hot Springs.
(3) Distribution of Radon in Thermal Waters and Thermal Gases.
(4) Composition of Thermal Gas.
(5) Composition of Sinter Deposit.
(6) Chemical Composition of Granite of Misasa.
(7) Changes in the Chemical Composition of "Kawara-no-Yu", Misasa Hot Springs.
(8) On Heavy Metals and B pH.

T. Ashizawa: Studies on Vitriol Springs. (5)
Polynuclear Complex Iron Salt in Vitriol Waters.

T. Ashizawa: Colorimetric and Volumetric Determination of Calcium by a New Reagent.

(9) On the Hydrogen Sulfide, Sulfite and Thiosulfite Contents.
(10) Arsenic Content.
(11) Nitrite Ion Content of the Thermal Bath Waters.
(12) Radium E Content.
(13) Thorium B and Radium B Content.
(14) Resorption of Thoron through the Skin and the Thoron Content of the Air of Bath Room.
(15) Application of Radioactive Elements in Thermal Waters as Tracer in Chemical Research and Radio-Thorium Content of a Sinter Deposit.


T. Ashizawa: Chromatographic Analysis of Metals by Organic Reagents.

T. Ashizawa: Colorimetric Determination of Magnesium in Natural Waters.

T. Ashizawa: Colorimetric Determination of Magnesium in Blood.

T. Ashizawa: Studies on Vitriol Springs. (6)

S. Umemoto: A Study on Phosphor Content in Misasa Spa.

T. Ashizawa: Microanalysis of Aluminum and Iron.
T. Ashizawa: Flocculation Value of Mineral Waters.

    (16) On Sinter Deposits.
    (17) Determination of Radium B and its Content.

T. Ashizawa: Colorimetric Determination of Calcium.

T. Ashizawa: Chromatographic Analysis of Metals by Organic Reagents.
    (2) Determination of Palladium.

T. Ashizawa: Concentration of Radioactive Elements in Thermal Waters by Ion
    Exchange Resin and its Application to Chemical Analysis.

T. Ashizawa: A New Colorimetric Determination of Boric Acid.
    Boric Acid and Fluoride Content of Thermal Waters in Tottori
    Prefecture.

M. Mifune: A Preliminary Report on the Degree of Saturation of Spring Sources
    in Tottori Hot Springs.

S. Umemoto: Radon Content of Misasa Hot Springs, Japan.


S. Umemoto: Studies on the Chloride and Sulfate Content of Well Waters and the
    Amounts of Chloride and Sulfate Fixed to the Soil in the Mineral
    Spring Districts. (1–6).
    (1) Misasa Hot Springs, Tottori Prefecture.
    (2) Sekigane Hot Springs, Tottori Prefecture.
    (3) Shigaku Hot Springs and Yugakai Hot Springs, Shimane Prefecture.
(4) Tamatsukuri Hot Springs, Shimane Prefecture.
(5) Hamamura and Kachimi Hot Springs, Tottori Prefecture.
(6) District Near the Spring in Kitadani Village, Tottori Prefecture,

T. Sugihara
M. Mifune:
Studies on Radon Content of Waters and Earth Temperatures in
    Fukudome, Kitadani Village, Tottori Prefecture, Japan.

T. Sugihara:
On the Distribution of Nitrate Content in Misasa Hot Springs, Tottori
    Prefecture.

T. Sugihara:
On the Detection of Radioactive Springs by Ground Water.

T. Sugihara et al.:
Chemical Studies on the River Waters in the Infected Localities with
    Katayama-Disease.

S. Umemoto:
Studies on the Chloride and Sulfate Content of Well Waters and the
    Amounts of Chloride and Sulfate Fixed to the Soil in the Mineral
    Spring Districts.
(7) Possibility of Chemical Prospecting of Mineral Springs.

T. Sugihara:
Chemical Studies on the Springs in Sanyo District. (2.)

M. Mifune:
Chemical Composition of Sekigane and Kaike Hot Springs, Tottori
    Prefecture.

T. Sugihara:
Studies on the Aging of Mineral Waters. (1－2).
(1) Changes in the Radon Content of Thermal Waters of Misasa
    after Flowing out.
(2) Changes in the Silicate Content of Thermal Waters of Misasa
    after Flowing out.

T. Ashizawa:
On Analytical Methods of Mineral Waters.
T. Ashizawa: On the Formation of Boric Waters.


Variation of Chemical Composition and Others in "Hisui-no-Yu". (I-4).

S. Umemoto: Geochemical Studies of Misasa Hot Springs. (V).
Relation Between Water Temperatures and Content of Cl⁻, SO₄²⁻ and HCO₃⁻.

S. Umemoto: Determination of Radium B in Radioactive Mineral Waters.
Japan Analyst, 2 (3), 1953.

Japan Analyst, 2 (1), 1953.


(8) Matsuzaki, Togo and Asozu Hot Springs, Tottori Prefecture, Japan.

T. Sugihara: Studies on the Aging of the Mineral Waters.
(3) Variation of Silicate in the Mineral Waters.

S. Umemoto & M. Mifune: Chemical Studies on Thermal Algae.
(1) On Inorganic Constituents.

S. Umemoto: Photometric Determination of Magnesium in Natural Waters.

T. Ashizawa: Studies on Vitriol Springs.

(4) On the Copper, Zinc, Nickel and Cobalt Contents of Blood after the Internal Use of a Vitriol Water "Fujino".


2. Balneological Medicine

H. Morinaga: Clinical and Experimental Studies of the Internal Use of the Radioactive Springs.

(1) Excretion of Radon in Expired Air after the Internal Use of Radioactive Water.

(2) Radioactive Spring Water and Digestive Ferments.

(3) Effect of the Internal Use of Radioactive Springs on the Gastric Acidity.

(4) Effect of the Internal Use of Radioactive Springs on Experimental Hyperglycemia.

(5) Internal Use of Radioactive Springs and Liver-Function.

(6) Internal Use of Radioactive Springs and Diuresis.

(7) Effect of the Internal Use of Radioactive Water on the Excretion of Uric Acid.


(20) Effects of the Radioactive Thermal Bath on Blood Catalase.


M. Sotozono: Studies of the Radioactive Springs.


H. Morinaga: Effect of the Internal Use of Shirahama Hot Springs on Alimentary Hyperglycemia.

S. Onoda: Studies of the Radioactive Springs.
   (28) Effects of the Radioactive Thermal Bath on Circulation System.
       (1st Report).

   (29) Effects of Frequent Thermal Bath on Blood Catalase.


M. Sotozono: Studies on Vitriol Springs.
   (1) Effects of the Internal Use of Vitriol Waters on Hypochromic Anemia.

H. Morinaga: Studies on Vitriol Springs:
   (2) Internal Use of Vitriol Waters and Alimentary Hyperglycemia.

Y. Tanaka: Balneotherapy in Gynecology and Obstetrics.
       General Practitioner and Clinic, 4 (6), June, 1952.

Y. Tanaka: Balneotherapy in Gynecology and Obstetrics.
       Rinsho Fujinka-Sanka, 6 (11), Nov., 1952.


M. Sotozono: Studies of Radioactive Springs.
   (30) Effects of Radioactive Thermal Bath on Oxydation-Reduction System.

M. Sotozono: Studies of Radioactive Springs.
   (31) Effects of Radioactive Thermal Bath on Oxydation-Reduction System.
       (3rd Report). Effect of Radioactive Thermal Bath on Vitamine C
Metabolism.

T. Yokota: Balneological Studies Using Radioactive Isotopes.
(2) Influence of Physico-Chemical Properties of Bath Water on the Transition of Sulfate Ion into the Body across the Skin.

M. Sotozono: Studies on Vitriol Springs.
(9) Effect of the Internal Use of Vitriol Waters on the Iodate Consumption of Blood.

M. Sotozono: Studies on Vitriol Springs.
(10) Effect of Internal Use of Vitriol Water of Yanahara on the Gastric Acidity.

S. Onoda: Studies of Radioactive Springs.
(32) Effects of Radioactive Thermal Bath on Circulation System.
(2nd Report).

Y. Tanaka: Clinical and Experimental Studies on the Effects of Thermal Bath upon the Sexual Function of Women.

S. Onda: An Experimental Study on the Effects of the Mineral Waters upon the Movement of Isolated Rabbit Intestine.

S. Onoda: Protective Effect of Thermal Baths Against Total Body X-Irradiation.

T. Yokota: Effects of the Internal Use of Radioactive, and Sulfate Waters upon the Bile Excretion.

Y. Tanaka: Clinical and Experimental Studies on the Effect of Thermal Baths upon the Sexual Function of Women.
(2) Effects of Thermal Bath on the Sexual Circle of Rat.
(3) Inquiry into the Mode of the Action.

(4) The Effects of Thermal Bath upon the Motility of the Living Rabbit's Fallopian Tube and Uterus.

Y. Tanaka: Balneotherapeutic Experiences in Gynecology.
(1) Balneotherapy of Vaginal Discharge and Chronic Adnexitis.
(2) A Case of Ureterovaginal Fistula treated successfully with Thermal Baths.
(3) A Case of Atypical Basal Body Temperature Improved by Thermal Baths.
(4) A Statistical Investigation on Spa Visitors with Gynecological Diseases.

(1) A Comparative and Statistical Study on the Death by Cancer in Spas and Their Surrounding Villages in Tottori Prefecture, Japan.

T. Okada: Protective Effect of Thermal Baths against Total Body X-Irradiation.
Changes of Liver-Catalase Activity in Mice.

(3) Effect of Radioactive Thermal Bath on Potassium, Calcium, Sodium, Chloride and Protein Levels in Serum.

H. Morinaga: Studies on Vitriol Springs.
(3) Effect of the Internal Use of Vitriol Water of Fujino on the Gastric Acidity.

Y. Tanaka: Clinical and Experimental Studies on the Effect of Thermal Baths.
(5) The Effect of Thermal Bath upon the Acetylcholin-like Substance in the Midbrain of Rat.
S. Onoda: A Study on the Incidence of Struma in the Central District of Tottori Prefecture, Japan.
(1) Incidence of Struma Among the Grown-up People.
(2) Incidence of Struma Among the School Boys and Girls.

S. Onoda & T. Otake: Relation between the Mottled Tooth and Endemic Struma in Tottori Prefecture.
J. Japan. Dental Assoc 7 (10), 1950.

S. Onoda: A Study on the Incidence of Struma in the Central District of Tottori Prefecture, Japan. (3).

M. Sotozono: A Clinical Study on Heart-Burn.

T. Yokota: A Statistical Observation on Cholecystopathia.

S. Onoda: Seasonal Changes in the Average Erythrocytes Sedimentation Rate in Misasa.

M. Sotozono: Backache and Sawada’s Pyruvic Acid Reaction in the Urine.

S. Onoda: A Case of Lung Cyst.

S. Onoda: A Case of Familial Hemolytic Anemia.

S. Kishida: Medical Studies on Chondroitin Sulfate.

S. Onoda: A Case of Congenital Hemolytic Jaundice.

Y. Ueda: Studies on Serum Mucoprotein.
(2) Relation between Serum Mucoprotein Level and Differential Agglutination Test for Rheumatoid Arthritis. An Experimental and Clinical Study.

T. Ashizawa: Copper and Zinc Content of Blood after Intravenous Injection of Dithizone or Oxin in Rabbit.