

# THE ISHIBASHI LABORATORY

Head : Prof. Dr. Masayoshi Ishibashi

In this laboratory works by Dr. Ishibashi and his co-workers are being carried on side by side in the following divisions.

- (1) Chemistry of Sea water, Brine and Bittern.
- (2) Chemistry of Sea-lives.
- (3) Chemistry of Sea-muds.

They have been published mostly in the Journal of the Chemical Society of Japan and sometimes in the Journal of the Oceano-graphical Society of Japan as well as in some others. In the following list of works, the titles of works not yet published but read before important meeting on chemistry are also mentioned. They will sooner or later be printed.

## **Gravimetric Determination of Potassium by Cobaltisodium-Nitrate and its Application to Sea-water.**

By Masayoshi Ishibashi and Kyo Kagi.  
*J. Chem. Soc Japan*, 59, 954 (1938).

## **Gravimetric Determination of Potassium by Perchloric Acid and its Application to Sea-water.**

By Masayoshi Ishibashi and Kyo Kagi.  
*Ibid.* 63, 1416 (1942).

## **Chemical Studies on the Ocean, Part 1. Direct Quantitative Determination of Sodium and its Application to Sea-water, Brine, Bittern and Sod. Chloride.**

By Masayoshi Ishibashi and Haruo Kishi.  
*Ibid.* 56, 357 (1935).

## **Chemical Studies on the Ocean, Part 2. Chemical Compositions of Deep Sea-muds, Red Clays and Radiolarian Oozes in the Pacific Ocean.**

By Masayoshi Ishibashi and Yasuo Harada.  
*Ibid.* 59, 4 (1938).

## **Chemical Studies on the Ocean, Part 3. On Lithium Content in Sea-water and Bittern.**

By Masayoshi Ishibashi and Kozo Kurata.  
*Ibid.* 60, 1109 (1939).

## **Chemical Studies on the Ocean, Part 4. New Improved Method of Separation of Gold From Sea-water.**

By Masayoshi Ishibashi and Mutsuaki Shinagawa.  
*Ibid.* 60, 1265 (1939).

**Chemical Studies on the Ocean, Part 5.**  
**On the Inorganic Constituents of Sea-weeds.**

By Masayoshi Ishibashi and Ryotaro Sawara.

*Ibid.* 61, 277 (1940).

**Chemical Studies on the Ocean, Part 6.**  
**On the Separation and Quantitative Analysis of Halogene in Sea-weeds.**

By Masayoshi Ishibashi and Ryotaro Sawara.

*Ibid.* 61, 518 (1940).

**Chemical Studies on the Ocean, Part 7.**  
**On Copper Content in Sea-water and Bittern.**

By Masayoshi Ishibashi, Kozo Kurata and Tsugio Hirobe.

*Ibid.* 60, 726 (1940).

**Chemical Studies on the Ocean, Part 8.**  
**On the Quantitative Determination of Chlorate and Perchlorate Existing with Large Quantities of Chlorides.**

By Masayoshi Ishibashi and Yasuo Harada.

*Ibid.* 62, 98 (1941).

**Chemical Studies on the Ocean, Part 9.**  
**On the Chemical Compositions of Boiler Scales, Produced from Sea-water. (I).**

By Masayoshi Ishibashi, Mutsuaki Shinagawa and Tsunenobu Shigematsu.

*Ibid.* 62, 44 (1941).

**Chemical Studies on the Ocean, Part 10.**  
**On the Chemical Compositions of Shallow Sea-muds along Korean Beaches and their Values of Resources.**

By Masayoshi Ishibashi.

Nippon Gakujutsu Kyokai Shi, 16, 3, 379 (1941).

**Chemical Studies on the Ocean, Part 11.**  
**On Rubidium Content in Sea-water and Bittern.**

By Masayoshi Ishibashi and Yasuo Harada.

J. Chem. Soc. Japan, 63, 211 (1942).

**Chemical Studies on the Ocean, Part 12.**  
**On the Chemical Compositions of Boiler Scales, Produced from Sea-water. (II).**

By Masayoshi Ishibashi and Mutsuaki Shinagawa.

*Ibid.* 63, 781 (1942).

**Chemical Studies on the Ocean, Part 13.**  
**Some Improvements of the Apparatus of Measuring Ra Content by Means of Rn-Solution.**

By Masayoshi Ishibashi, Katsumi Yamaguchi and Mutsuaki Shinagawa.

J. Oceanogr. Soc. Japan, 2, 1 (1943).

**Chemical Studies on the Ocean, Part 14.**

**The Microquantitative Determination of Lead in Sea-water and its Geochemical Meaning, the Age of the Ocean (I). (A New Method for the Determination of the Age of the Ocean)**

By Masayoshi Ishibashi, Masao Tanaka and Hisao Hayakawa.

*Ibid.* 2, 10 (1943).

**Chemical Studies on the Ocean, Part 15.**

**On the Regularities of Amounts of Elements Dissolving in Sea-water and the Age of the Ocean (II). (Another New Improved Method for the Determination of the Age of the Ocean)**

By Masayoshi Ishibashi and Yasuo Harada.

*Ibid.* 3, 84 (1944).

**Chemical Studies on the Ocean, Part 16, and 17.**

**Microquantitative Determination of Cesium in Sea-water and Bittern.**

By Masayoshi Ishibashi and Yasuo Harada.

*Ibid.* 3, 185 (1944).

**Chemical Studies on the Ocean, Part 18.**

**Some Improvements of Polarographic Apparatus, especially for Microseparation and Analysis.**

By Masayoshi Ishibashi, Mutsuaki Shinagawa and Tadashi Sasabe.

*Sea and Sky*, 23, 317 (1943).

**Chemical Studies on the Ocean, Part 19.**

**Some Improvements of Polarographic Apparatus, especially for Microseparation and Analysis, continued.**

By Masayoshi Ishibashi and Mutsuaki Shinagawa.

*Ibid.* 24, 21 (1944).

**Chemical Studies on the Ocean, Part 20.**

**On the Chemical Mechanisms of Deposition of Salts during the Vaporization of Sea-water.**

By Masayoshi Ishibashi and Toshiharu Murakami.

*J. Soc. Salt Sci. Japan*, 4, 51 (1950).

**Chemical Studies on the Ocean, Part 21.**

**On the Chemical Compositions of Bittern, Produced in Solar-Salt-Field.**

By Toshiharu Murakami.

*Ibid.* 4, 24 (1950).

**Chemical Studies on the Ocean, Part 22.**

**The Preparation of Pure Magnesia from Bittern.**

By Masayoshi Ishibashi, Tsunenobu Shigematu and Yasuharu Nakagawa.

*Ibid.* 5, 1 (1951).

**Chemical Studies on the Ocean, Part 23.**  
**New Method of Prevention of Boiler Scale Forming during the Vaporization of Sea-water.**

By Masayoshi Ishibashi, Mutsuaki Shinagawa and Shnji Nagatake.  
*Ibid.* in press.

**Chemica Studies on the Ocean, Part 24.**  
**On Aluminium Content in Sea-water. (I).**

Masayoshi Ishibashi and Tamotsu Kawai.  
 J. Chem. Soc. Japan, in press.

**Chemical Studies of the Ocean, Part 25.**  
**On Aluminium Content in Sea-water. (II).**

By Masayoshi Ishibashi and Kenji Motojima.  
*Ibid.* in press.

**Chemical Studies on the Ocean, Part 26.**  
**The Microquantitative Determination of Thorium in Sea-water.**

By Masayoshi Ishibashi and Shinnosuke Higashi.  
 Chemistry and Chemical Industry, 2, 14 (1949).

**Chemical Studies on the Ocean, Part 27.**  
**On Barium Content in Sea-water.**

By Masayoshi Ishibashi, Mutsuaki Shinagawa and Kazuyoshi Takiyama.  
 J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 28.**  
**On Aluminium Content in Sea-water. (III).**

By Masayoshi Ishibashi and Taichiro Fujinaga.  
*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 29.**  
**The Microquantitative Determination of Titanium in Sea-water (I).**

By Masayoshi Ishibashi and Shinnosuke Higashi.  
*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 30.**  
**On Copper Content in Sea-water. (II).**

By Masayoshi Ishibashi and Takashi Nakao.  
*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 31.**  
**On Iron Content in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.  
*Ibid.* read before the meeting and to be published

**Chemical Studies on the Ocean, Part 32.****On Manganese Content in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 33.****On Molybdenum Content in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 34.****On Chromium Content in Sea-water.**

By Masayoshi Ishibashi and Tsunenobu Shigematsu.

Bull. Inst. Chem. Res. Kyoto Univ., 23, 59 (1950).

**Chemical Studies on the Ocean, Part 35.****The Quantitative Determination of Arsenic in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu, Yasuharu Nakagawa  
and Yoshihiro Ishibashi.

*Ibid.* 24, 68 (1951).

**Chemical Studies on the Ocean, Part 36.****The Quantitative Determination of Titanium in Sea-water (II).**

By Masayoshi Ishibashi and Tsunenobu Shigematsu.

J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 37.****The Quantitative Determination of Vanadium in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

Bull. Inst. Chem. Res. Kyoto Univ., 24, 68 (1951).

**Chemical Studies on the Ocean, Part 38.****The Quantitative Determination of Cobalt in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 39.****The Quantitative Determination of Nickel in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 40.****On the Regularities of the Amounts of Elements Dissolving in Sea-water (II).**

By Masayoshi Ishibashi and Tsunenobu Shigematsu.

Bull. Inst. Chem. Res. Kyoto Univ. The brief interpretation is in press.

**Chemical Studies on the Ocean, Part 41.**

**A new Quantitative Method of Determining Magnesium in Sea-water and Bittern.**

By Masayoshi Ishibashi, Hisao Hayakawa and Taichiro Fujinaga.

*Ibid.* 17, 99 (1944).

**Chemical Studies on the Ocean, Part 42.**

**A New Quantitative Method of Determining Calcium in Sea-water.**

By Tsunenobu Shigematsu, Yasuharu Nakagawa and Yoshihiro Ishibashi.

J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 43.**

**The Quantitative Determination of Sulphate Ion in Sea-water.**

By Masayoshi Ishibashi, Tsunenobu Shigematsu and Yasuharu Nakagawa.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 44.**

**The Quantitative Determination of Bromine in Sea-water and Bittern.**

By Masayoshi Ishibashi and Shinobu Miyajima.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 45.**

**Experimental Results for Fertilisation Properties of Sea-Muds.**

By Masayoshi Ishibashi.

J. Agr. Chem. Japan, 16, 245 (1940).

**Chemical Studies on the Ocean, Part 46.**

**On the Chemical Constituents of Beach and Shallow-Muds of Korea (I).**

By Masayoshi Ishibashi.

*Ibid.* 17, 67 (1941).

**Chemical Studies on the Ocean, Part 47.**

**On the Chemical Constituents of Beach and Shallow-Muds of Korea (II).**

By Masayoshi Ishibashi and Shunzo Ueda.

J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 48.**

**On the Chemical Constituents of Beach and Shallow-Muds of Korea (III).**

By Masayoshi Ishibashi and Shunzo Ueda.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 49.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (I).**

By Masayoshi Ishibashi and Fuji Morii.

Bull. Inst. Chem. Res. Kyoto Univ., 18, 106 (1949).

**Chemical Studies on the Ocean, Part 50.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (II).**

By Masayoshi Ishibashi and Fuji Morii.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 51.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (III).**

By Masayoshi Ishibashi and Shunzo Ueda.

J. Chem. Soc. Japan, read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 52.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (IV).**

By Masayoshi Ishibashi and Shunzo Ueda.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 53.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (V).**

By Masayoshi Ishibashi and Shunzo Ueda.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 54.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan (VI).**

By Masayoshi Ishibashi and Shunzo Ueda.

*Ibid.* read before the meeting and to be published.

**Chemical Studies on the Ocean, Part 55.**

**On the Chemical Constituents of Beach and Shallow-Muds along the Sea-Coast of Japan. (VII).**

By Masayoshi Ishibashi and Shunzo Ueda.

*Ibid.* read before the meeting and to be published.