SHIN-YA KITAMURA

Postal Address:
Institute of Multidisciplinary Research for Advanced Materials
Tohoku University
2-1-1 Katahira, Aoba-ku
Sendai 980-8577
Japan

Phone: + 81 22 2175144
Fax : + 81 22 2175144
e-mail:kitamura@tagen.tohoku.ac.jp

Personal Particulars

Age:	59 years
Date of Birth:	March 22, 1955
Marital Status:	Married
Citizenship:	Japanese.

Position

Professor
Dr. Eng

Academic Qualifications

Bachelor of Eng.	Dept. of Material Science, Faculty of Eng. Tohoku Univ., 1978
Master of Eng.	Dept. of Material Science, Faculty of Eng. Tohoku Univ., 1980
Doctor of Eng.	Awarded for a research thesis on "Research in Highly Efficient Stainless Steel Refining Technologies," Kyushu University, 1991

Experience

April 2005 - Present	Professor Institute of Multidisciplinary Research for Advanced Materials Tohoku University
October 2003 - March 2005	Head of R&D Center (General Manager) Nippon Steel & Sumikin Stainless Steel Corp.
April 2001 - September 2003	General Manager Hikari R&D Lab., Nippon Steel Corp.
March 2001 - November 1993	Senior Researcher, Chief Researcher Steelmaking Research Lab., Nippon Steel Corp.
April 1980 - October 1993	Researcher, Senior Researcher Yawata R&D Lab., Nippon Steel Corp.

Academic Societies

The Iron and Steel Institute of Japan (ISIJ),
The Japan Institute of Metals (JIM),
The mining and Materials Processing Institute of Japan (MMIJ),
Association for Iron & Steel Technology (AIST)

Chairperson of Refining Forum, Division of High Temperature Processing, ISIJ (April. 2010-March.2012)
Chairperson of Refining Process Research Committee, JSPS 19th Committee, Steelmaking (April 2010- March 2011)
Councilor of JIM (April 2009-2011)
Councilor of ISIJ (April 2011-)
Director of JIM (April 2003 – March 2005)

Research Field

The production process of base metals, such as steelmaking process, has an extremely important role in supporting the development of an eco-friendly human society and it becomes to an age of technical innovation toward an eco-friendly society. For the research and development of this field, we have to consider the following points on four different scales:

1) Giga scale: Consider the global impact of the extraction process of base metals from the earth's resources.
2) Mega scale: Enhance the performance and efficiency of reactors to establish eco-friendly production processes.
3) Micro scale: Identify the physical and chemical factors that control the reaction rate and material characteristics.
4) Nano scale: Control the mass transfer rate of molecules among different phases to increase the reaction rate or produce ultrafine structures.

The following researches based on the above four points are being carried out in the field of steelmaking, which is a core process used to produce high-quality steel.

- Development of eco-friendly process using byproduct of process.
- Development of a process simulation model.
- Study on the kinetics of chemical reactions in steelmaking.
- Direct observation of micro scale phenomena at high temperature.