

Hydrologic Environmental Laboratory

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Member

Academic Staff :

- Yoshinari HIROSHIRO (hirosiro@civil.kyushu-u.ac.jp), Associate Professor, Dr. Eng.
Field of Specialization (Groundwater Environmental Systems)
- Koji NISHIYAMA (nisiyama@civil.kyushu-u.ac.jp), Assistant Professor, Dr. Eng.
Field of Specialization (Meteorology)

Technical Staff :

- Hideto OISHI

Students :

- Master students(5), Bachelor students(4), G30 student(1)

Current research fields;

- 1)Groundwater pollution(Nitrate, Arsenic and Iron in groundwater)**
- 2) Hydrochemical Solute Transport Model in Subsurface Environment**
- 3)Geochemistry in groundwater & salinized groundwater**
- 4)Groundwater recharge and flow model**

1)Groundwater pollution(Nitrate, Arsenic and Iron in groundwater)

Transport modeling of Arsenic, Nitrate and Iron with bacteria mediated reduction

Experimental and Biogeochemical modeling studies on arsenic release in soil under anaerobic condition

(The International Journal of Soil, Sediment and Water, Vol.1, No.2, ISSN:1940-3259,2008.)

Hydrogeochemistry and Arsenic Contamination of Groundwater in the Ganges Delta Plain, Bangladesh

(Journal of Hazardous Materials, Volume 164, Issues 2-3, 30 May 2009, ELSEVIER)

2) Hydrochemical Solute Transport Model in Subsurface Environment

Behavior of chemical species under reducing condition

Reactive solute transport with a variable selectivity coefficient in an undisturbed soil column

(Soil Science Society of America Journal, Vol.61(6),1997.)

Multicomponent solute transport model with cation exchange in a redox subsurface environment

(IAHS Publ. No.265, Sept.2000.)

3)Geochemistry in groundwater & salinized groundwater

Geochemical Investigations of Salinized Groundwater

HYDROGEOCHEMICAL PROPERTIES OF A SALINITY-AFFECTED COASTAL AQUIFER IN WESTERN JAPAN

(Hydrological Processes, Vol.20, No.6, April 2006.)

Modeling of Physical and Geochemical Behaviors of Saltwater in a Coastal Aquifer

(Advances in Geosciences, Vol.4, June 2006.)

4)Groundwater recharge and flow model

Planning of rainwater storage and infiltration facility

Modelling of Hydrologic cycle Itoshima peninsula

Scaling up of groundwater flow and geochemical transport to Bay

Nutrient Inputs through Submarine Groundwater Discharge to Ariake Bay, Kyushu Island, Japan

(IAHS Publ. No.312, July 2007.)

Submarine groundwater discharge estimation using a water balance and groundwater flow model

(International Symposium on Earth Science and Technology 2008, Dec. 2008.)