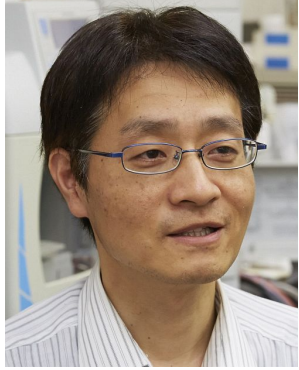


## Requests for Collaboration

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<p><b>Research Interests</b></p> <ul style="list-style-type: none"> <li>● Environmental safety evaluation for waste/recycled material</li> <li>● Municipal solid waste incineration ash management</li> <li>● Chemicals management and risk communication in a city and business facility including university campus.</li> </ul>	
<p><b>Creative Achievements in The Application of New and Existing Science and Technology</b></p>	
<p>(1) Prevention of environmental pollution by utilized recycled materials and/or landfilled solid waste is important. Development and establishment of the environmental safety control system for solid waste and recycled materials are studied. The topic includes sampling, leaching and extraction test, chemical analysis, and overall evaluation methods. Those results are standardized to official standard such as JIS/ISO.</p> <p>(2) Municipal solid waste incineration fly ash containing hazardous metals (Pb, Cd, Hg, As, Se etc.) should be treated before landfill in order to prevent environmental pollution. Stabilization of metals by chelating agent/cement/carbonation, or extraction by water, acid, chelating agents are studied and evaluated. These techniques can be also applied to recycled materials or contaminated soils.</p> <p>(3) Chemical agent management system and risk communication are important for sustainable city. Quantification of risk of chemicals at the time of disaster are studied.</p>	
<p><b>Research theme that I want to collaborate</b></p>	
<ul style="list-style-type: none"> <li>● Establishment of waste and recycled material management system.</li> <li>● Stabilization of heavy metals in ash/recycled materials/soils.</li> <li>● Chemicals management and risk communication in your community.</li> </ul>	
<p><b>A List of 5 Key Publications</b></p>	
<ul style="list-style-type: none"> <li>● <u>S. Mizutani</u>, M. Ikegami, H. Sakanakura, and Y. Kanjo, Test methods for the evaluation of heavy metals in contaminated soil (Chapter 4), in <i>Environmental Remediation Technologies for Metal-Contaminated Soils in Environmental Remediation Technologies for Metal-Contaminated Soils</i>, (Eds.) H. Hasegawa et al., ISBN 978-4-431-55758-6, Springer, (2015.10)</li> <li>● H. Sawai, I.M.M. Rahman, M. Fujita, N. Jii, T. Wakabayashi, Z. A. Begum, T. Maki, <u>S. Mizutani</u>, H. Hasegawa, Decontamination of metal-contaminated waste foundry sands using an EDTA-NaOH-NH<sub>3</sub> washing solution, <i>Chemical Engineering Journal</i>, <b>296</b>, 199-208 (2016)</li> <li>● <u>S. Mizutani</u>, Y. Kanjo, Distribution of acid-extractable Pb contents in molten slag from municipal solid waste incineration ash, <i>Jacobs Journal of Civil Engineering</i>, <b>1</b>(1), 1-4, (2015)</li> <li>● <u>S. Mizutani</u>, S. Sakai, H. Takatsuki, Investigation of hydrogen generation from municipal solid waste incineration fly ash, <i>Journal of Material Cycles and Waste Management</i>, <b>2</b>(1), 16-23 (2000)</li> <li>● <u>S. Mizutani</u>, H. van der Sloot, S. Sakai: Evaluation of treatment of gas cleaning residues from MSWI with chemical agents, <i>Waste Management</i>, <b>20</b> (2/3), 233-240 (2000)</li> </ul>	