# Curriculum Vitae

## Personal infromation

Name Sanghyun Lee
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Date of birth 8 July 1959

## Address

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## University education

- 1991 – 1994 **Doctor of Philosophy in Engineering**

  **The University of Tokyo**

  - Thesis title 'Application of laser flash method for thermal diffusivity of non-uniform and thermophysical properties measurements for practical nuclear materials'
  - Studied in thermophysical properties for nuclear reactor and vessel materials by using laser flash method and differential scanning calorimeter.

- 1982 – 1986 **Master of Science in Electronics**
  **Kyungpook National University**

- 1978 – 1982 **Bachelor of Engineering in Electronics**
  **Kyungpook National University**

## Work experience

- 1986 – 1987 **Kyungpook National University (Teaching Assistant)**
- 1987 – present **Korea Research Institute of Standards and Science (Principal Research Scientist)**

  My responsibilities include
  - Establishment of the thermal diffusivity measurements by Laser flash
  - Establishment of the thermal conductivity measurement technique by GHP (Guarded Hot Plate) for high temperature range.
  - The thermal diffusivity measurement for thin films

## Publications

- D. Kim, W. Jung, S. Lee, 'Thermophysical properties of Inconel alloy 740 modified with titanium and aluminium', *Int. J. Nanotechnol.*, Vol. 16, Nos. 4/5, (2019).
- I. Yang, D. Kim, S. Lee, H. Jang, 'Construction and calibration of a large-area heat flow meter apparatus', Energy & Buildings, 203, 109445, (2019).
- I. Yang, D. Kim, S. Lee, 'Construction and preliminary testing of a

guarded hot plate apparatus for thermal conductivity measurements at high temperatures', Int. J. Heat and Mass Trans., 122, 1343-1352, (2018).

- S. Lee and D. Kim, 'The evaluation of cross-plane/in-plane thermal diffusivity using laser flash apparatus', Thermochimica Acta, 653, 126-132, (2017)
- S. Lee and D. Kim, 'Thermal diffusivity of silicon carbide as a reference material for laser flash apparatus', High Temp.-High Press., Vol. 45, 345-355, (2016).
- S. Lee, H. Ham, S. Kwon, S. Kim, C. Suh, 'Thermal conductivity of magnesium alloys in the temperature range from -125 $^{o}$C to 400 $^{o}$C', Int. J. Thermophys. 34, 2343-2350, (2013).

## Conferences

- S. Lee, D. Kim, S. Jeon, S. Nam, 'The effect of the glass transition of polymer in the high-pressurized hydrogen atmosphere', 2019 ITCC & ITES, Wilmington, USA (2019).
- S. Lee, D. Kim, S. Jeon, 'Thermal behavior of polymer in the hydrogen gas atmosphere', Twentieth Symposium on Thermophysical Properties, Boulder, USA (2018).
- S. Lee and D. Kim, 'Thermal conductivity of Waspaloy series', European Conference on Thermophysical Properties, Graz, Austria (2017).
- S. Lee, D. Kim and I. Yang, 'Establishment of the high-Temperature Guarded Hot Plate Apparatus at KRISS', Asian Thermophysical Properties Conference, Yokohama, Japan (2016).
- S. Lee, D. Kim and W. Jung, 'Thermophysical Properties of Ni-

based Superalloys', Nineteenth Symposium on Thermophysical Properties, Boulder, USA, (2015).

- S. Lee, S. Kwon, J. Lee and D. Kim, 'The evaluation of cross-plane/in-plane thermal diffusivity for laser flash apparatus', European Conference on Thermophysical Properties, Porto, Portugal, (2014).

## Research interests

- Measurement of thermal diffusivity for semiconductor materials and nickel-based super-alloys
- The thermal conductivity measurement for high-temperature application of thermal insulation material.
- The current research focuses on the thermophysical properties of polymer for hydrogen infrastructure and the single crystal of nickel based for gas turbine blade.

## Activities

- 1986 – present Member of KSTP (Korea Society of Thermophysical Properties)
- 1991 – present Member of JSTP (Japan Society of Thermophysical Properties)
- 2013 – 2016 President of KSTP
- 2017 – 2019 Convenor of ISO/TC 163/SC1/WG2
- 2013 – present International Organization Committee Member of ATPC (Asian Thermophysical Properties Conference)

## Award

- 1994 JSTP Award for the Best Paper

- 2007 Netzsch Award by KSTP