
EMPLOYMENT

- **Adjunct Professor at Kyung Hee University** 2023 – Present
 - KHU-KIST Department of Convergence Science and Technology
- **Senior Researcher at KIST** 2022 – Present
 - Energy Harvesting / Transfer
 - Thermometry / Thermal management / Electrocaloric
 - Additive manufacturing/ Sensor development
- **Research Scientist at KIST** 2020 – 2022
- **Process Engineer at INTEL** 2020

EDUCATION

- **University of Michigan, Ann Arbor**
 - Ph.D. in Mechanical Engineering 2019
 - Dissertation Title: Developing Calorimeters for Thermal Transport and Biological Measurements with Picowatt Resolution
 - Research area: Physical and Material Sciences, Heat and Energy Transport, Thermometry, Microfabrications
 - M.S. in Mechanical Engineering 2016
- **Pohang University of Science and Technology**
 - B.S. in Mechanical Engineering 2014

RESEARCH INTEREST

- Thermal measurement / Thermal analysis
- Experimental/Computational thermal system management
- Energy harvesting / low-waste heat recovery
- Thermal analysis in ceramics (electrocaloric, pyroelectric, and piezoelectric)

PUBLICATIONS

Peer-reviewed SCI/SCIE Journals in total : 21

Selected Journals

- Kim, S.; Shin, J.; Kim, H.; Lee, D.; Park, J.; Baik, J.; Kim, S.; Kang, J.; Choi, W. *; Song, H. *; **Hur, S.***; “A synergetic effect of piezoelectric energy harvester to enhance thermoelectric Power: An effective hybrid energy harvesting method” *Energy Conversion and Management*, 298, 117774, 2023
- **Hur, S.¹**; Kim, S.¹; Kim, H.; Kumar, A.; Kwon, C.; Shin, J.; Kang, H.; Sung, T.; Ryu, J.; Baik, J.; Song, H.; “Low-grade waste heat recovery scenarios: Pyroelectric, thermomagnetic, and thermogalvanic thermal energy harvesting” *Nano Energy*, 114, 108596, 2023
- Choi, H.¹; **Hur, S.¹**; Kumar, A.; Song, H.; Baik, J.; Song, H.; Ryu, J.; “Continuous pyroelectric energy generation with cyclic magnetic phase transition for low-grade thermal energy harvesting” *Applied Energy*, 344, 121271, 2023
- Chang, S.¹; **Hur, S.¹**; Park, J.; Lee, D.; Shin, J.; Kim, H.; Song, S.; Baik, J.; Kim, M.; Song, H.; Kang, J.; “Optimization of piezoelectric polymer composites and 3D printing parameters for flexible tactile sensors” *Additive Manufacturing*, 67, 103470, 2023
- Shim, H.; Sun, S.; Kim, H.; Lee, D.; Lee, Y.; Jang, J.; Cho, K.; Baik, J.; Kang, J.; Leng, Y.; **Hur, S.***; Song, H. *; “On a nonlinear broadband piezoelectric energy harvester with a coupled beam array” *Applied Energy*, 328, 120129, 2022
- Kim, H.¹; **Hur, S.¹**; Lee, D.; Shin, J.; Qiao, H.; Mun, S.; Lee, H.; Moon, W.; Kim, Y.; Baik, J.; Kang, J.; Jung, J.; Song, H.; “Ferroelectrically augmented contact electrification enables efficient acoustic energy transfer through liquid and solid media” *Energy & Environmental Science*, 15, 1243-1255, 2022
- **Hur, S.¹**; Mitatpally, R.¹; Yadlapalli, S.; Reddy, P.; Meyhofer, E., “Sub-nanowatt resolution direct calorimetry for probing real time metabolic activity of individual C. elegans worms,” *Nature Communications*, vol. 11, 2983, 2020
- Cui, L.; **Hur, S.**; Akbar, Z.A.; Klockner J.C.; Jeong, W.; Pauly, F.; Jang S.; Reddy, P.; Meyhofer, E., “Thermal conductance of single-molecule junctions,” *Nature*, vol. 572, pp. 628-633, 2019
- Cui, L.; Jeong, W.; **Hur, S.**; Matt, M.; Klockner, J.C.; Pauly, F.; Nielaba, P.; Cuevas, J.C.; Meyhofer, E.; Reddy, P., “Quantized thermal transport in single-atom junctions,” *Science*, vol. 355, pp.1192-1195, 2017

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