

Curriculum Vitae

Dr. Tae Won Cho

Birthday: February 3rd, 1992

Address: 989-111, Daedeock-daero, Yuseong-gu, Daejeon, 34057, Republic of Korea

Office: +82-42-868-4487

Mobile: +82-10-4347-4301

Email: twcho@kaeri.re.kr



Educations

2013.08 ~ 2018.08 Combined M.S. & Ph.D. Program in Nuclear Engineering

Ulsan National Institute of Science and Technology, Ulsan, Republic of Korea

2010.03 ~ 2013.08 B.S. in Nuclear Engineering and Mechanical Engineering

Ulsan National Institute of Science and Technology, Ulsan, Republic of Korea

Dissertation: "Measurements and Modeling of Thermal Conductivity of U-Mo/Al Dispersion Fuel for Research Reactor."

Position Held

2018.10 ~ Present : Post Doctoral Researcher, KAERI, South Korea

2013.08 ~ 2018.08 : Graduate student (Combined MS-Ph.D Program), UNIST, South Korea

2016.03 ~ 2016.07 : Research Aide, KAERI, South Korea

2016.11 ~ 2016.12 : Research Aide, ANL, U.S.

Publications

1. **Tae Won Cho**, Yeon Soo Kim, Dong-Seong Sohn, Thermophysical properties of sintered Al-Si, Journal of Alloys and Compounds 479, 2018
2. **Tae Won Cho**, Yeon Soo Kim, Dong-Seong Sohn, et al., Thermophysical properties of heat-treated U-7Mo/Al, Journal of Nuclear Materials, 501, 2018
3. **Tae Won Cho**, Yeon Soo Kim, Dong-Seong Sohn, et al., Thermal properties of U-7Mo/Al dispersion fuel, Journal of Nuclear Materials, 496, 2017
4. **Tae Won Cho**, Yeon Soo Kim, Dong-Seong SOHN, Thermal conductivity of U-Mo/Al dispersion fuel: effects of particle shape and size, stereography, and heat generation, Journal of Nuclear Science and Technology, 52, 2015

5. Yeon Soo Kim, **Tae Won Cho**, Dong-Seong SOHN, Thermal conductivities of actinides (U, Pu, Np, Cm, Am) and uranium-alloys (U-Zr, U-Pu-Zr and U-Pu-TRU-Zr), Journal of Nuclear Materials, 445, 2014

Patents

1. Ki Nam Kim, Sungchan Park, Yong Jin Jeong, Kyu Hong Lee, Sung Hwan Kim, **Tae Won Cho**, Jong Man Park, 염기성 용액에 용해 가능한 우라늄 표적의 제조방법 및 이를 이용한 방사성 Mo-99의 추출방법, 10-2019-0059872, 2019

Research Interests

- Nuclear Fuel Engineering
- Research Reactor Fuel
- Thermophysical Measurements
- Thermal Conductivity
- Fuel Performance Modeling

Conference Presentations

Conference Proceedings/Extended Abstracts

1. **T.W. Cho**, D.-S. Sohn, The Release Rate of Wigner (stored) Energy for Irradiated Graphite Reflector, Transactions of the Korean Nuclear Society Autumn Meeting, Gyeongju, Korea, October 25-26, 2012.
2. **T.W. Cho**, D.S. Sohn, Study of Irradiation Characteristics of Nuclear Graphite in Research Reactor, NtUss Forum, Daejeon, Korea, May 24, 2013
3. J.K. Baek, **T.W. Cho**, J.-H. Kim, G.Y. Jeong, D.-S. Sohn, Preliminary Study for Temperature Variation Verification of Radiant Heating Furnace for High Temperature Corrosion Test, Transactions of the Korean Nuclear Society Autumn Meeting, Gyeongju, Korea, October 24-25, 2013.
4. **T.W. Cho**, J.K. Baek, G.Y. Jeong, J.-H. Kim, D.-S. Sohn, Thermal Properties of Beryllium Metal, Transactions of the Korean Nuclear Society Autumn Meeting, Gyeongju, Korea, October 24-25, 2013.
5. **T.W. Cho**, G.Y. Jeong, C.-M. Lee, D.-S. Sohn, Heat Generation Effects on U-Mo/Al through Abaqus FEM simulation, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 29-30, 2014.
6. **T.W. Cho**, G.Y. Jeong, M.J. Kim, C.M. Lee, D.-S. Sohn, U-Mo Thermal Conductivity Analysis through Abaqus Simulation, The 2nd Asian Nuclear Fuel Conference, Sendai, Japan,

September 18-19, 2014.

7. C.M. Lee, J.S. Cheon, M.J. Kim, J.-K. Baek, J.-H. Kim, G.-Y. Jeong, B.-J. Cho, **T.W. Cho**, D.-S. Sohn, Development of a creep correlation for HT9, The 2nd Asian Nuclear Fuel Conference, Sendai, Japan, September 18-19, 2014.
8. **T.W. Cho**, C.M. Lee, D.-S. Sohn, Y.S. Kim, Thermal Conductivity of U-Mo/Al Dispersion Fuel: Effects of Particle Shape and Size, Stereography, and heat generation, 35th International Meeting on Reduced Enrichment for Research and Test Reactors, Vienna, Austria, October 12-16, 2014
9. **T.W. Cho**, D.-S. Sohn, Effects of Particle Size and Shape on U-Mo/Al Thermal Conductivity, Korea Nuclear Society, Pyeongchang, Korea, October 30-31, 2014.
10. G.Y. Jeong, **T.W. Cho**, C.M. Lee, D.-S. Sohn, K.H. Lee, J.M. Park, Code Structure for U-Mo Fuel Performance Analysis in High Performance Research Reactor, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 6-8, 2015
11. **T.W. Cho**, G.Y. Jeong, D.-S. Sohn, Preliminary Study on the UO₂ Fuel Performance in University Research Reactor, 2015 International HANARO Symposium, Daejeon, Korea, May 11-15, 2015
12. C.M. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, J.-H. Kim, Y.-K. Mok, D.-S. Sohn, High Temperature Oxidation of the Zr-1Nb-1Sn-0.1Fe Cladding tube at the Temperatures of 1000 - 1200°C, International Congress on Advances in Nuclear Power Plants, San Francisco, United States of America, April 17-20, 2016.
13. **T.W. Cho**, G.Y. Jeong, C.M. Lee, K.H. Lee, D.-S. Sohn, Effects of silicon on the thermal conductivity of aluminum, The Nuclear Materials Conference, Montpellier, France, November 7-10, 2016
14. C.M. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, J.-H. Kim, H.-J. Lee, Y.-K. Mok, D.-S. Sohn, High-temperature steam-oxidation behavior of Zr-1Nb-1Sn-0.1Fe cladding tube at temperatures of 800-1000°C, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 12-13, 2016.
15. **T.W. Cho**, Y.S. Kim, J.M. Park, C.T. Lee, K.H. Lee, S.H. Kim, J.H. Yang, J.S. Oh, D.-S. Sohn, Thermal conductivity of U-Mo/Al dispersion fuel, The 3rd Asian Nuclear Fuel Conference, Jeju, Korea, September 8-9, 2017.
16. **T.W. Cho**, G.Y. Jeong, C.M. Lee, J.H. Kim, I.-C. Lim, D.-S. Sohn, Preliminary study of irradiation performance of nuclear graphite moderator/reflector in research reactor, The 3rd Asian Nuclear Fuel Conference, Jeju, Korea, September 8-9, 2017.
17. C.M. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, H.-J. Lee, J.-H. Kim, D.-S. Sohn, Enhanced Oxidation Resistance of a Zirconium Alloy Cladding Tube by High-Temperature Pre-Oxidation, The 3rd Asian Nuclear Fuel Conference, Jeju, Korea, September 8-9, 2017.

18. C.M. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, H.-J. Lee, J.-H. Kim, D.-S. Sohn, A new Method to Enhance the Oxidation Resistance of a Zirconium Alloy Cladding: High-Temperature Pre-Oxidation, Water Reactor Fuel Performance Meeting, Jeju, Korea, September 10-14, 2017.
19. C.M. Lee, H.-J. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, J.-H. Kim, Y.-K. Mok, D.-S. Sohn, Oxidation Resistance Enhancement of a Zirconium Alloy by High-Temperature Pre-Oxidation, Korea Nuclear Society, Gyeongju, Korea, October 25-27, 2017.
20. **T.W. Cho**, Y.S. Kim, J.M. Park, K.H. Lee, S.H. Kim, C.-T. Lee, J.H. Yang, J.S. oh, D.-S. Sohn, Thermal conductivity of U-Mo/Al dispersion fuel, Transactions of the Korean Nuclear Society Autumn Meeting, Gyeongju, Korea, October 25-27, 2017.
21. G.W. Jeong, Y.S. Kim, **T.W. Cho**, Y.J. Jeong, D.-S. Sohn, Development of thermal analysis module in the PRIME code, Korea Nuclear Society, Gyeongju, Korea, October 25-27, 2017.
22. **T.W. Cho**, Y.S. Kim, J.M. Park, K.H. Lee, C.-T. Lee, J.H. Yang, J.S. Oh, D.-S. Sohn, Analysis of thermal conductivity of U-Mo/Al and U-Mo/Al-5Si dispersion fuel, 38th International Meeting on Reduced Enrichment for Research and Test Reactors, Chicago, USA, November 12-15, 2017
23. **T.W. Cho**, Y.S. Kim, J.M. Park, K.H. Lee, C.-T. Lee, J.H. Yang, J.S. Oh, D.-S. Sohn, Analysis of the effect of interaction layer on thermo-physical properties of U-Mo/Al dispersion fuel, 38th International Meeting on Reduced Enrichment for Research and Test Reactors, Chicago, USA, November 12-15, 2017
24. C.M. Lee, **T.W. Cho**, G.Y. Jeong, M.J. Kim, J.-H. Kim, Y.-K. Mok, D.-S. Sohn, Effects of Preformed Oxide on Enhancing High Temperature Oxidation Resistance of a Zirconium Alloy Cladding Tube, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 16-19, 2018
25. **T.W. Cho**, D.-S. Sohn, Y.S. Kim, J.M. Park, Y.J. Jeong, Analysis of measured thermophysical properties of U-Mo/Al dispersion fuels, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 16-19, 2018
26. **T.W. Cho**, J.Y. Park, K.H. Park, S.W. Park, J.E. Kim, J.M. Park, Basic Studies on the Solvent Extraction with Uranium, Neptunium-239, and Strontium-85, Yeosu, Korea, Oct. 24-26, 2018
27. **T.W. Cho**, Y.J. Jeong, K.H. Lee, S.H. Kim, K.N. Kim, J.M. Park, Thermophysical Characteristics of U-Mo/Al Dispersion Fuel, HANARO symposium 2019, Deajeon, Korea, April 10, 2019
28. **T.W. Cho**, K.N. Kim, S.C. Park, Y.J. Jeong, K.H. Lee, S.H. Kim, J.M. Park, Preliminary Study of High-density LEU Dispersion Targets Using and Atomized Uranium Aluminum Alloy Powder, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea,

May 22-24, 2019

29. **T.W. Cho**, D.S. Sohn, Y.J. Jeong, K.H. Lee, S.H. Kim, K.N. Kim, J.M. Park, Thermal Conductivity Analysis of U-Mo/Al Dispersion Fuel Using FEM Simulation, Transactions of the Korean Nuclear Society Spring Meeting, Jeju, Korea, May 22-24, 2019
30. **T.W. Cho**, K.N. Kim, Y.J. Jeong, K.H. Lee, S.H. Kim, J.M. Park, Microstructure Characterization of Atomized Dispersion Targets for Mo-99 Production, TOP FUEL 2019, Seattle Washington, USA, September 22-26, 2019
31. **T.W. Cho**, K.N. Kim, Y.J. Jeong, K.H. Lee, S.H. Kim, J.M. Park, Development Status of Very High-density LEU Dispersion Targets Using Atomized Uranium-Aluminum Alloy-Powders, Transactions of the Korean Nuclear Society Autumn Meeting, Goyang, Korea, October 24-25, 2019

Activities

-
1. **Nuclear Technology Undergraduate Student Society (NtUss) Scholarship**, June, 2012 – May, 2013