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Towards a sustainable and circular metals economy: the case of copper in China

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Curriculum Vitae

Di Dong was born on June 30th, 1991 in Jining, Shandong Province, China. She graduated from No.2 High School in 2010, and started her Bachelor study in Engineering Management in Zhejiang University of Finance and Economics from 2010 to 2014. She was one of the "Outstanding Graduates" in 2014. She continued her Master study in Management Science and Engineering in China University of Geosciences (Beijing) from 2014 to 2017. During this period, she was supervised by Prof. Haizhong An and Prof. Wei Fang. Her Master thesis was focused on "Embodied carbon in international copper trade from an industry chain perspective" and was awarded one of the "Outstanding Master Thesis".

After her Master study, she was granted a scholarship by the Chinese Scholarship Council for a PhD project, and started her PhD study in the Institute of Environmental Sciences in Leiden University in 2017 under the supervision of Dr. Ester van der Voet and Prof. dr. Arnold Tukker. Her PhD research was focused on the sustainable and circular metals economy, specifically on the case of copper in China. The copper model designed in her research has been used by the International Copper Association (ICA) to do further research.

She participated in the EIT-labelled International Doctoral School Programme- the IDS-FunMat-Inno project during PhD study. She visited the Fraunhofer Institute for Systems and Innovation Research ISI (Karlsruhe, Germany) in 2018 and the Vienna University of Technology (Vienna, Austria) in 2019, where she focused on modelling of copper waste management and supply.

In addition, she presented her research findings in the International Society for Industrial Ecology (ISIE) 6th Asia-Pacific (AP) conference, the ISIE conference in 2019 and the 5th international conference on Final Sinks. During the PhD study, she also assisted the course of "Resilient Cities-Minor Sustainable Development".

List of Publications

1. Dong, D., Tercero Espinoza, Luis A. Loibl, A., Pfaff, M., Tukker, A., & van der Voet, E. (2020). Scenarios for anthropogenic copper demand and supply in China: implications of a scrap import ban and a circular economy transition. Resources, Conservation and Recycling, 161, 104943.
2. Dong, D., van Oers, L., Tukker, A., & van der Voet, E. (2020). Assessing the future environmental impacts of copper production in China: Implications of the energy transition. Journal of Cleaner Production, 274, 122825.
3. Dong, D., Tukker, A., & van der Voet, E. (2019). Modeling copper demand in China up to 2050: A business-as-usual scenario based on dynamic stock and flow analysis. Journal of Industrial Ecology, 23(6), 1363-1380.
4. Dong, D., Tukker, A., Steubing, B., van Oers, L., Rechberger, H., Aguilar, Hernandez G., Li, H., van der Voet, E., Towards "Zero waste" management of copper in China: dematerialization and environmental impact minimization. Environmental Science & Technology, under review.