

10th World Congress and Expo on Recycling

July 26-27, 2018 | Amsterdam, Netherlands



Martina Petranikova

Chalmers University of Technology, Sweden

Circular economy of Li-ion batteries recycling

Cristian Tunsu and Britt-Marie Steenari

Chalmers University of Technology, Sweden

E-mobility and significant need of the energy storage are one of the most challenging demands put on the battery industry nowadays. Limited sources of cobalt, lithium and graphite call for necessity to keep battery productions and recycling in closed loop, to avoid the source losses. Since car producers announced in some cases exclusive production of electric vehicles, the metal industry will be heavily affected by the demands coming from such decisions. This contribution will give a prospective on amount of the sources used for battery production in recent years, predicted development in future battery chemistry and effects of this development on the future prices of cobalt and lithium. The presentation will bring the information on current recycling technologies with respect to their contribution to circular economy. European directive for the battery collection and recycling will be discussed as the most powerful tool to improve current status in circular economy of battery recycling.

Biography

Martina Petranikova has received her PhD in 2012. Currently, she is working as an Assistant Professor at Chalmers University of Technology. Her work deals with the development of processes to recover valuable metals from primary sources (ores, concentrates) and secondary sources (spent batteries, steel making dust, mining waste, WEEE, etc.). Her research spans over a broad range, from material pre-treatment all the way to industrial scale-up. She has vast experience with processing of batteries, having 10 years of experience in this field.

martina.petranikova@chalmers.se

Notes: