

## ***BOOK REVIEW***

### **E-Waste: Regulations, Management Strategies and Current Issues**

**Editors:** Xianlai Zeng (School of Environment, Tsinghua University, Beijing, China)

The book, edited by Xianlai Zeng, contains seven chapters on generation, management, and recovery of E-waste. Written by Chinese scholars from reputable academic institutions, it addresses universal issues of global importance. Based on their research, the authors reveal opportunities to improve policies and technologies for E-waste management. Besides the Asian experience, they include also European and other efforts.

The book starts with a statement of the manifold problems arising from E-waste, and continues with an estimation of total E-waste generation. The authors focus on overall mass flows, individual categories, and single constituents such as brominated flame retardants or heavy metals. Specific products such as printers are treated in individual chapters. It appears that the path to sufficient resource recovery and environmental protection is still long and challenging.

Emphasis is given to the importance of the design and production step of electronic products for the later E-waste management. The authors suggest including Multi Life Cycle Assessment when designing new products, and show by case studies how this can increase resource recovery and environmental protection. They are optimistic that production innovation will significantly reduce the negative impact of E-waste management.

Short chapters are dedicated to governance of E-waste, and to technologies available for recovery of metals from E-waste. The Chinese experience in extended producer responsibility (EPR) shows that the challenges are the same as elsewhere: How can an EPR system influence the production of E-waste in a beneficial way if the value chain between production and waste management is long and fragmented? While most of recovery technologies are still in the laboratory stage, the authors suggest that in future, new technologies will have both economic and environmental benefits. In the final chapter, the editor presents his viewpoint regarding the future management of E-waste, and also gives recommendations about research objectives in the field.

The book represents a good snapshot of the field "E-waste management". It is highly recommended for an audience that looks for an overview and wants to identify research opportunities. Readers interested in environmental science and engineering, circular economy, and urban mining will find a wealth of information about the generation, management, recycling, and governance of E-waste.

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