



### 典型电子废物集中处置场地及周边土壤中多溴联苯醚的污染特征

陈涛, 周纯, 牟义军, 余彬彬

台州市环境中心监测站

### PBDEs Pollution of Soil in a E-waste Disposal Site and Its Surrounding Area

CHEN Tao, ZHOU Chun, MOU Yi-Jun, YU Bin-Bin

Taizhou Environmental monitoring Center Station

摘要

参考文献

相关文章

Download: [PDF \(624KB\)](#) [HTML 1KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

**摘要** 采用快速溶剂萃取-凝胶净化-气相色谱质谱法 (GC-MS) 测定了浙江省台州市某典型电子废物集中处置场地及周边土壤中多溴联苯醚 (poly brominated diphenyl ethers, PBDEs) 浓度, 研究了8种PBDEs (BDE-28、BDE-47、BDE-99、BDE-100、BDE-153、BDE-154、BDE-183、BDE-209) 的浓度水平、组成特征和垂直分布规律。结果表明, BDE-209污染与其他几种PBDEs污染之间具有很大的关联性; BDE-209是主要污染物, 占8种PBDEs总含量的90%左右; 处置场地内8种PBDEs的浓度高于其周边土壤, 其平均质量含量分别为0.625和0.209 mg·kg<sup>-1</sup>; 随着与场地集中区域中心距离的增加, PBDEs总含量呈逐渐下降趋势。

**关键词:** 电子废物处置 土壤 多溴联苯醚 污染特征

**Abstract:** Concentrations of 8 kinds of PBDE congeners (BDE-28、BDE-47、BDE-99、BDE-100、BDE-153、BDE-154、BDE-183、BDE-209) in soils of a typical e-waste disposal site and its surrounding area in Taizhou, Zhejiang were determined with the accelerated solvent extraction (ASE) – gel permeation chromatography technology (GPC) – GC – MS method, to study concentration level, composition characteristics and vertical distribution of the pollutants in the area. Results show that BDE-209 was the major pollutant, accounting for 90% of the content of the total 8 PBDEs in the soil. The total concentration of the pollutants in the soil was higher in the site per se than in its surrounding area, being 0.625 and 0.209 mg·kg<sup>-1</sup>, respectively. PBDE concentration decreased with the distance from the center of the disposal site.

**Keywords:** Electronic waste recycling soil poly brominated diphenyl ethers (PBDEs) pollution characteristic

Received 2011-03-04;

Fund:

浙江省环保科研项目 (200937)

Corresponding Authors: 周纯 台州市环境中心监测站 Email: zhouchunjoy@163.com

About author: 陈涛 (1969-), 男, 浙江台州人, 高级工程师, 主要从事环境管理方面的研究。E-mail: chentao903@163.com

#### 引用本文:

陈涛, 周纯, 牟义军, 余彬彬. 典型电子废物集中处置场地及周边土壤中多溴联苯醚的污染特征[J] 生态与农村环境学报, 2011, V27(3): 20-24

CHEN Tao, ZHOU Chun, MOU Yi-Jun, YU Bin-Bin. PBDEs Pollution of Soil in a E-waste Disposal Site and Its Surrounding Area[J] Journal of Ecology and Rural Environment, 2011, V27(3): 20-24

#### Service

- ▶ 把本文推荐给朋友
- ▶ 加入我的书架
- ▶ 加入引用管理器
- ▶ Email Alert
- ▶ RSS

#### 作者相关文章

- ▶ 陈涛
- ▶ 周纯
- ▶ 牟义军
- ▶ 余彬彬