

化学

## 粉煤灰基地聚物水泥固化重金属和放射性废物研究现状及发展趋势

安金鹏, 卢忠远, 严云

西南科技大学材料科学与工程学院, 四川绵阳621002

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**摘要** 安全有效地处置重金属废物和放射性废物是世界各国关注的问题, 也是现代经济可持续发展的重要保证。粉煤灰基地聚物水泥具有优良的性质, 在固化重金属和放射性废物方面有很好的前景。文章概述地聚物水泥及其反应过程、水化产物, 着重阐述粉煤灰基地聚物水泥固化重金属放射性废物的研究进展, 并论述了当前存在的主要技术问题。

**关键词** [粉煤灰](#); [地聚物水泥](#); [重金属](#); [放射性废物](#)

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## Status and Outlook of Study on Immobilization of Heavy Metal and Radioactive Waste With Fly Ash Based Geopolymer

AN Jin-peng, LU Zhong-yuan, YAN Yun

Southwest University of Science and Technology, Mianyang 621002, China

### Abstract

The safe and effective treatment and disposal of heavy metal and radioactive waste become one of the urgent problem in environment or/and social issue which should be resolved, and it is also the guarantee for the sustainable development for our country. Fly ash based geopolymer is a new material which has many attractive properties, such as requiring simple equipment, easy scaling-up, low working temperature, no trouble of gas cleaning and low cost which are the same as cement solidification. It may be used as an alternative technology for treatment and disposal of heavy metal and radioactive waste. The state of the art and development trends for geopolymer solidification of heavy metal and radioactive waste were described in the paper and main technical problems needed to solve were also discussed.

### Key words

[fly ash](#); [geopolymer](#); [heavy metal](#); [radioactive waste](#)

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