

基于Arc GIS的危险品城市运输路径优化模型

王云鹏, 孙文财, 李世武, 周茹波, 张景海, 刘宇

吉林大学 交通学院, 长春 130022

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摘要 为了合理地规划危险品城市运输的路径,降低危险品运输事故所带来的危害,对危险品城市运输过程中的影响因素和路段风险费用进行了分析研究,利用缓冲区等空间分析工具,以长春市市区道路为研究对象,建立了基于Arc GIS的路径优化模型,并结合实际事故案例进行了分析验证。结果表明:该模型优化的路径合理,其图形化描述结果对于管理者具有较高的参考价值。

关键词 [交通运输安全工程](#) [危险品运输](#) [城市路网](#) [Arc GIS](#) [路径优化](#)

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Route optimization model for urban hazardous material transportation based on Arc GIS

WANG Yun-peng, SUN Wen-cai, LI Shi-wu, ZHOU Ru-bo, ZHANG Jing-hai, LIU Yu

College of Transportation, Jilin University, Changchun 130022, China

Abstract In order to arrange the route for the hazardous material transportation(Hazmat) reasonably to reduce the harm risk brought by the accidents of Hazmat, a route optimization model was established based on the Arc GIS with the special analysis tool such as buffer. The influence factors in urban Hazmat and the risk expenses on a road section were analyzed. The urban road network in Changchun city was taken as research object, and the model was validated by an actual accident case. The results show that the route optimized by the model is reasonable, and its graphic display is valuable for the Hazmat supervisors.

Key words [engineering of communications and transportation safety](#) [hazardous material transportation\(Hazmat\)](#) [urban road network](#) [Arc GIS](#) [route optimum](#)

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通讯作者 李世武 shiwu@jlu.edu.cn

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