The four parts of the Introduction

（1）环保、可持续、健康是人们一直关注的主题。  
（2）沥青材料VOC研究的意义与研究现状。  
（3）环氧沥青是一种高性能的路用特种铺装材料（钢桥面等）；环氧沥青热拌环氧沥青和温拌环氧沥青；环氧沥青在施工时会释放大量有害气体，对环境和施工人员造成负面影响，但是目前对其释放量的、释放有机物的类别仍缺乏研究。  
（4）本文研究内容和研究方法。

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(1)

Asphalt binders are produced as a byproduct of the petroleum production, and is widely used in the road pavement especially in the surface pavement. It performance well in road pavement and nowadays about xxx asphalt is produced per year and over 85% is used in the road pavement.[2]

Although the asphalt perform well in road building, however the mixing progress to produce asphalt mixtures and serving period of asphalt mixture will release some toxic emission which is harmful to workers.

The final asphalt product always contain some lightweight compounds. Those compositions can be released during the process of mix and serve which is also known as emission.[3] The compositions of emission include CO, CO2, SOx, NOx, volatiles organic compounds(VOCs) and polycyclic aromatic hydrocabons(PAH) [4-7] Those compositions are all harmful to people and the environment. Some researches focus on the influence of VOC on the workers, VOC may lead to mucosal irritation , skin irritation, rash, nausea, stomach pain, decreased appetite, headaches, and fatigue on occupational exposures as reported[8].

(2)

How to evaluate the amount of VOC emission is always a heated topic. Some studies utilize different method to determine the composition and amount of VOC emission.

The ultraviolet and visible spectroscopy (UV-VIS) has been studied to evaluate the VOCs emission amount from asphalt by conditions of high temperature and non-high temperature. By drawing the standard curve(linear relationship between the VOC quality of the absorption solution and its absorbance value), the VOC quality of samples can be calculated. [1]

Appendix:

[1]: Evaluation of Volatile Organic Compounds from Asphalt Using

UV-visible Spectrometer

[2]

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