



[Home](#) > [Research Centers and Institutes](#) > [UMass Wind Energy Center](#) > [Wind Energy Center Masters Theses Collection](#) > [1](#)



Wind Energy Center Masters Theses Collection

Mathematical Modeling Of The Dispersion Of Air Pollutants From Highways

Wesley P. Bauver, University of Massachusetts - Amherst


Publication Date
1978

Abstract

This work discusses the theory of the HIWAY and California Line Source highway air pollution dispersion models and describes the EPA emissions model which is used to provide emission factors for these models. A parametric study of the dispersion models is performed to show the effect of the various inputs to these models on predicted pollutant concentrations. These results indicate certain cases in which one model should be used instead of the other. These models are used to perform air quality, environmental impact assessments of two highway projects in Massachusetts. Mesoscale Analyses are also performed for these highways. Advances in modeling the dispersion of pollutants from highways and possible modifications to the California Line Source and HIWAY models are also discussed.

Pages
118

[Download](#)

 **Included in**
[Mechanical Engineering Commons](#)

[SHARE](#)

Enter search terms:

in this series

[Advanced Search](#)

 [Notify me via email or RSS](#)

[Browse](#)

[Collections](#)

[Disciplines](#)

[Authors](#)

[Author Corner](#)

[Author FAQ](#)

[Links](#)

[University Libraries](#)

[UMass Amherst](#)

[Contact Us](#)



This page is sponsored by the [University Libraries](#).

© 2009 [University of Massachusetts Amherst](#) • [Site Policies](#)

 **DIGITALCOMMONS**
powered by bepress