

Home

Online Library ACP

- ▣ Recent Final Revised Papers
- ▣ [Volumes and Issues](#)
- ▣ Special Issues
- ▣ Library Search
- ▣ Title and Author Search

Online Library ACPD

Alerts & RSS Feeds

General Information

Submission

Review

Production

Subscription

Comment on a Paper

Impact
Factor
4.865

ISI
indexed



▣ [Volumes and Issues](#) ▣ [Contents of Issue 3](#)

Atmos. Chem. Phys., 3, 591-605, 2003

www.atmos-chem-phys.net/3/591/2003/

© Author(s) 2003. This work is licensed under a Creative Commons License.

Haze in the Klang Valley of Malaysia

M. D. Keywood¹, G. P. Ayers¹, J. L. Gras¹, C. P. Boers², and Leong³

¹CSIRO Atmospheric Research, Australia

²Atmospheric Research Division KNMI Netherlands

³Malaysian Meteorological Service, Malaysia

Abstract. Continuous measurements of dry aerosol light scattering (Bsp) were made at two sites in the Klang Valley of Malaysia between December 1998 and December 2000. In addition 24-hour PM_{2.5} samples were collected on a one-day-in-six cycle and the chemical composition of the aerosol was determined. Periods of excessive haze were defined as 24-hour average Bsp values greater than 150 Mm⁻¹ and these occurred on a number of occasions, between May and September 1999, during May 2000, and between July and September 2000. The evidence for smoke from biomass burning being a significant contributor to aerosol during periods of excessive haze is discussed. For example, during periods of excessive haze, the chemical composition of the aerosol showed enhanced concentrations of elemental carbon, organic carbon and non-seasalt potassium. The diurnal cycle of Bsp and PM₁₀ was disturbed from its usual pattern of maxima overnight and minima during the day with morning and afternoon traffic peaks, and instead showed a maximum peak during the middle of the day. Periods of excessive haze were coincident with the presence of forest fires on Sumatra during the southwest (SW) monsoon period, the influence of which are demonstrated by transport modelling for one week of the SW monsoon of 2000. The study highlights that whilst transboundary smoke is a major contributor to poor visibility in the Klang Valley, smoke from fires on Peninsular Malaysia is also a contributor. In addition the uniform concentration of non-seasalt sulfate in PM_{2.5} at both sites over the entire sampling period suggests the presence of a domestic source of secondary aerosol production in the Klang Valley.

▣ [Final Revised Paper](#) (PDF, 1572 KB) ▣ [Discussion Paper](#) (ACPD)

Citation: Keywood, M. D., Ayers, G. P., Gras, J. L., Boers, C. P., and Leong, : Haze in the Klang Valley of Malaysia, Atmos. Chem. Phys., 3, 591-605, 2003. ▣ [Bibtex](#) ▣ [EndNote](#) ▣ [Reference Manager](#)

Search ACP

Library Search

Author Search

News

- ▣ [Sister Journals AMT & GMD](#)
- ▣ [Financial Support for Authors](#)
- ▣ [Journal Impact Factor](#)
- ▣ [Public Relations & Background Information](#)

Recent Papers

01 | ACP, 11 Mar 2009: Measurements of Pollution In The Troposphere (MOPITT) validation through 2006

02 | ACP, 11 Mar 2009: Air-sea fluxes of biogenic bromine from the tropical and North Atlantic Ocean

03 | ACPD, 10 Mar 2009: Characterization of organic ambient aerosol during MIRAGE 2006 on three platforms

04 | ACPD, 10 Mar 2009: Regional differences in