

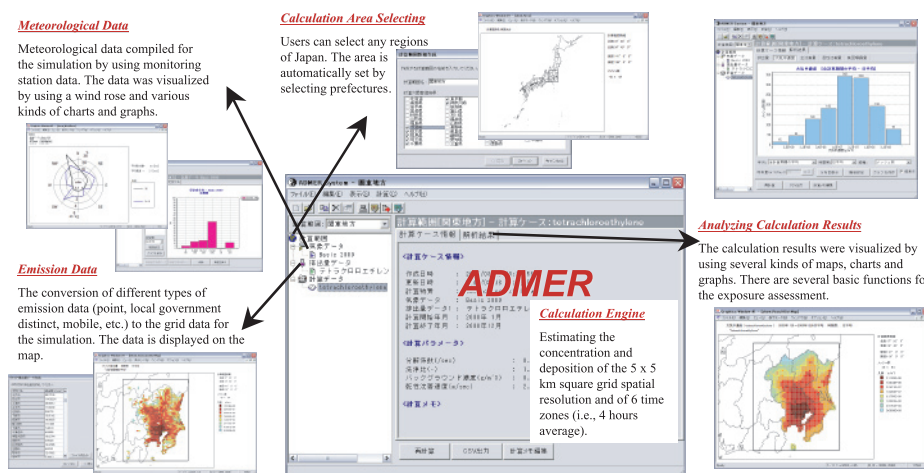
Development of an Atmospheric Dispersion Model for Exposure and Risk Assessment – ADMER ver.1.0

Haruyuki HIGASHINO

Research Center for
Chemical Risk Management
e-mail:
haru@ni.aist.go.jp
AIST Today Vol. 3, No.10
(2003) 18

An ADMER (Atmospheric Dispersion Model for Exposure and Risk Assessment), which estimates atmospheric concentrations and the depositions of chemicals, has been developed. The ADMER includes some useful functions for calculations and for exposure and risk assessment, used for compiling meteorological data and making up gridded emission

data for the simulation, and for analyzing calculated results visually using several kind of maps, charts and graphs, and estimating the size and location of populations exposed to chemicals. The ADMER will be useful for those risk assessments in which spatiotemporal distributions must be considered.



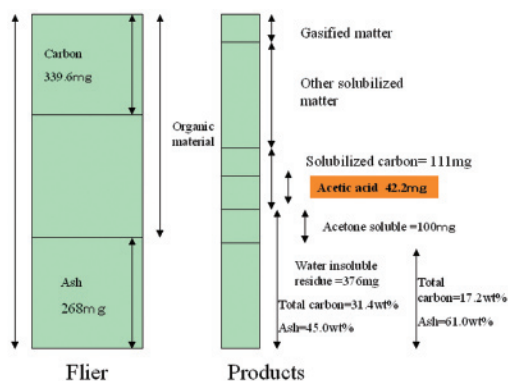
The capture of the user interface and major functions in the ADMER ver.1.0

Water-Solubilization of Waste Paper by using Hot Compressed Water

Noriyuki YAMADA

Institute for Structural and
Engineering Materials
e-mail:
noriyuki-yamada@aist.go.jp
AIST Today Vol. 3, No.11
(2003) 14

Various kinds of waste paper with different ash content were solubilized by hot compressed water (HCW) in mini-batch reactor. When the operating conditions of reaction temperature and time were varied, it was found formic, acetic and lactic acids were mainly produced. Waste paper with higher calcium carbonate content was favorable in producing much more amount of organic acids. When a flier, 26.8wt% ash content and 10wt calcium carbonate content, was treated under the condition of 275°C and 30min, the conversion rate of water-solubilized carbon of about 33wt% and acetic acid of 42mg/g-waste paper were obtained.



Typical mass balance for HCW treatment of flier