

III. Air Pollution by Aerosols from Vehicle Engines

In discussing particulates from motor vehicles we will consider only the primary particulates and ignore the secondary particulates (e.g., photochemical smog) even though the latter are very important. As seen in Table II, the total mass of primary particulates from motor vehicles is a small part of the pollution from vehicles or of the aggregate pollution picture nationwide and world wide. But within a restricted locality, the particulate contribution of the automobile can be significant as shown in Table III (from Refs. 4 and 7).

Table III. Vehicle particulate emissions and total particulate pollutant emissions in selected urban areas (includes gasoline- and diesel-powered vehicles).

<u>Urban area</u>	<u>Tons of particulate annually</u>	
	<u>Total</u>	<u>Motor vehicles</u>
Washington, D. C.	35000	5700
New York and North N. J.	231000	33800
Kansas City	60000	5000
Jacksonville, Fla.	14000	600
St. Louis	147000	4700
Los Angeles County	43000	16400

In the L. A. area, vehicles contribute an estimated 38% of the total particulates.

An idea of the rate of emissions from an individual vehicle can be obtained from the following (See Refs. 6, 7, 23):