

Table 5.2 Description of cloud genera

		Plate
<i>Cirrus</i> (Ci)	<i>High Clouds</i> Detached clouds in the form of white delicate filaments or white or mostly white patches or narrow bands. These clouds have a fibrous appearance or a silky sheen or both.	1
<i>Cirrostratus</i> (Cs)	A transparent whitish cloud veil of fibrous appearance or smooth appearance totally or partly covering the sky, and generally producing halo phenomena.	2
<i>Cirrocumulus</i> (Cc)	A thin, white patch, sheet or layer of cloud without shading, composed of very small elements in forms of grains or ripples merged or separate and more or less regularly arranged.	3
<i>Altostratus</i> (As)	<i>Medium Clouds</i> A greyish or bluish cloud or layer of striated, fibrous or uniform appearance, totally or partly covering the sky, and having parts thin enough to reveal the sun at least vaguely.	4
<i>Alto cumulus</i> (Ac)	A white or grey, or both white and grey, patch, sheet or layer of cloud, generally composed of rounded masses or rolls, which are sometimes partly fibrous or diffuse and which may not be merged.	5
<i>Stratus</i> (St)	<i>Low Clouds</i> A generally grey cloud layer with a fairly uniform base. When the sun is visible through the cloud its outline is clearly discernible.	6
<i>Stratocumulus</i> (Sc)	A grey or whitish or both grey and whitish patch, sheet or layer of cloud which almost always has a dark part, composed of rounded masses or rolls, which are non-fibrous, and which may or may not be merged.	7
<i>Nimbostratus</i> (Ns)	A grey cloud layer, often dark, whose appearance is rendered diffuse by more or less continuously falling rain or snow, which in most cases reaches the ground. It is thick enough throughout to blot out the sun.	8
<i>Cumulus</i> (Cu)	Detached clouds, generally dense and with sharp outlines, developing vertically in the forms of rising mounds, domes or towers, of which the bulging upper part often resembles a cauliflower. The sunlit parts of these clouds are mostly brilliant white and their bases relatively dark and nearly horizontal.	9 10
<i>Cumulonimbus</i> (Cb)	A heavy dense cloud, with a considerable vertical extent, in the form of a mountain or huge towers. At least part of its upper portion is usually smooth, fibrous or striated, and nearly flattened; this often spreads out in the form of an anvil or vast plume.	11

process occurs and its temperature increases. The rate at which the temperature of the parcel changes with height is termed the *Adiabatic Lapse Rate*. For a *dry air parcel*, in which the air is unsaturated, the rate is  $9.8^{\circ}\text{C km}^{-1}$  (usually rounded up to  $10.0^{\circ}\text{C km}^{-1}$ ). This is the *Dry Adiabatic Lapse Rate* (D.A.L.R.), which is applicable whether the air parcel is ascending or descending.

An ascending *saturated air parcel* will cool at the *Saturated Adiabatic Lapse Rate* (S.A.L.R.), the value of which is less than the D.A.L.R.. During its ascent the volume of the air parcel increases, and its temperature decreases, as for an unsaturated air parcel. As a result some water vapour condenses,

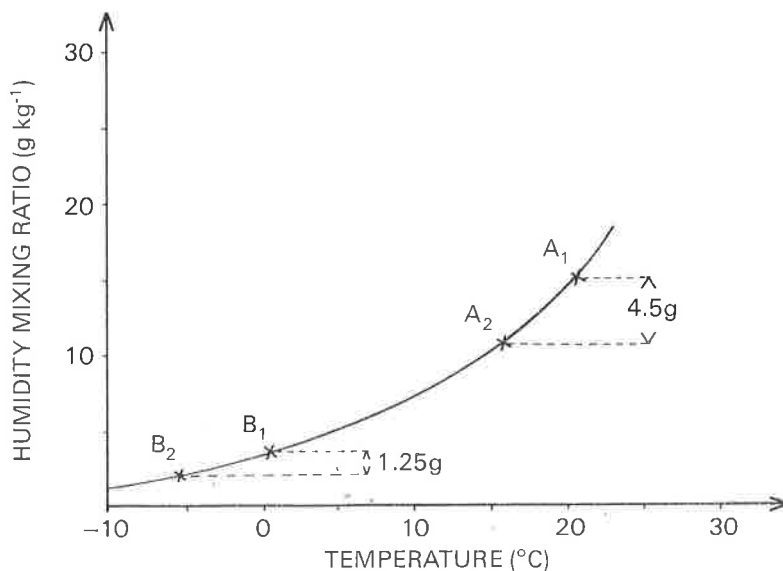


Fig. 5.1 Condensation of water vapour.