

ture—and by change into a more compact, heavier, and more brittle substance.

Humic Series.	C.	H.	O.
Wood	100	12.2	83
Peat	100	9.6	55.7
Lignite	100	7.5	60
Bituminous coal	100	6.6	9.3
Steam	100	4.5	2.6
Anthracite (Pennsylvanian)	100	2.8	1.7
Sapropelic.			
Wigan Cannel	100	6.9	10.1

PEAT—Peat represents the first stage in one method of coal formation. It is soft, brown or black, and varies in texture from a fibrous material in which the plants can be recognized to structureless jelly. It is an accumulation of vegetation due to the simultaneous growth and decay of plants when saturated with water, which prevents their complete decomposition into water and carbon dioxide. The plants at the upper part of the deposit decay under the action of the oxygen of the air and of bacteria and fungi; but in the lower layers, as air is excluded and the conditions are aseptic, chemical decomposition is prevented, and the materials accumulate by the continued growth of the plants above. The name probably comes from a Celtic word meaning pieces, as peat can be pulled into shreds of vegetation; it was known in England as turf until the name peat spread from Scotland late in the eighteenth century.

Peat is usually formed on cold moorlands by the growth of mosses and rushes. It is most abundant between 35° and 60° N. where the mean annual temperature is from 40° to 60° F. Its close dependence on this temperature probably explains why its formation has ceased on some Scottish moorlands, though in Ireland and Germany it grows at the rate of a foot in from 5 to 10 years. Peat is comparatively rare in warmer countries, where plant decay is usually complete; it occurs in Italy, East Africa, Madagascar, and such places