

which are not so dense, and their figures more irregular, more vacuities are left, and in the lightest, the molecules being few, and most likely of a very irregular figure, a thousand times more void is found than plenitude; for it may be demonstrated by other experiments, that the volume of even the most dense substance contains more void space than full matter.

Now, the principal cause of fusibility is the facility which the particles of heat find in separating these molecules of full matter from each other; let the sum of the vacuities be greater or less, which causes density or lightness, it is indifferent to the separation of the molecules which constitute the plenitude; and the greater or less fusibility depends entirely on the power of coherence which retains the massive parts united, and opposes itself more or less to their separation. The dilatation of the total volume is the first degree of the action of heat; and in different metals it is made in the same order as the fusion of the mass, which is performed by a greater degree of heat or fire. Tin, which melts the most readily, is also that which dilates the quickest; and iron, which is the most difficult of all to melt, is likewise that whose dilatation is the slowest.

After these general positions, which appear clear, precise, and founded on experiments that