

Q.1 Calculate the net radiation heat transfer per m² area of two large plates placed parallel to each other at temperatures of 427°C and 27°C respectively. (Hot plate)= 0.9 and (Cold plate)=0.6. If a polished aluminum shield is placed between them, find the % reduction in heat transfer, (Shield)=0.04.

Q.2 Two large parallel plates with emissivity () = 0.5 each, are maintained at different temperatures and are exchanging heat only by radiation. Two equally large radiation shields with surface emissivity 0.05 are introduced in parallel to the plates. Find percentage reduction in net radiative heat transfer.