The Ideal IR mirror should have a width (Δ_{IR}) as large as possible, however only few micrometers (up to four) are experimentally obtainable. That it is not a huge limit since the selective solar absorbers have an emissivity that goes close to zero at wavelength of about 4-6micronmeters.

In the figure below is reported an ideal IR mirror with one micrometer Δ_{IR}.

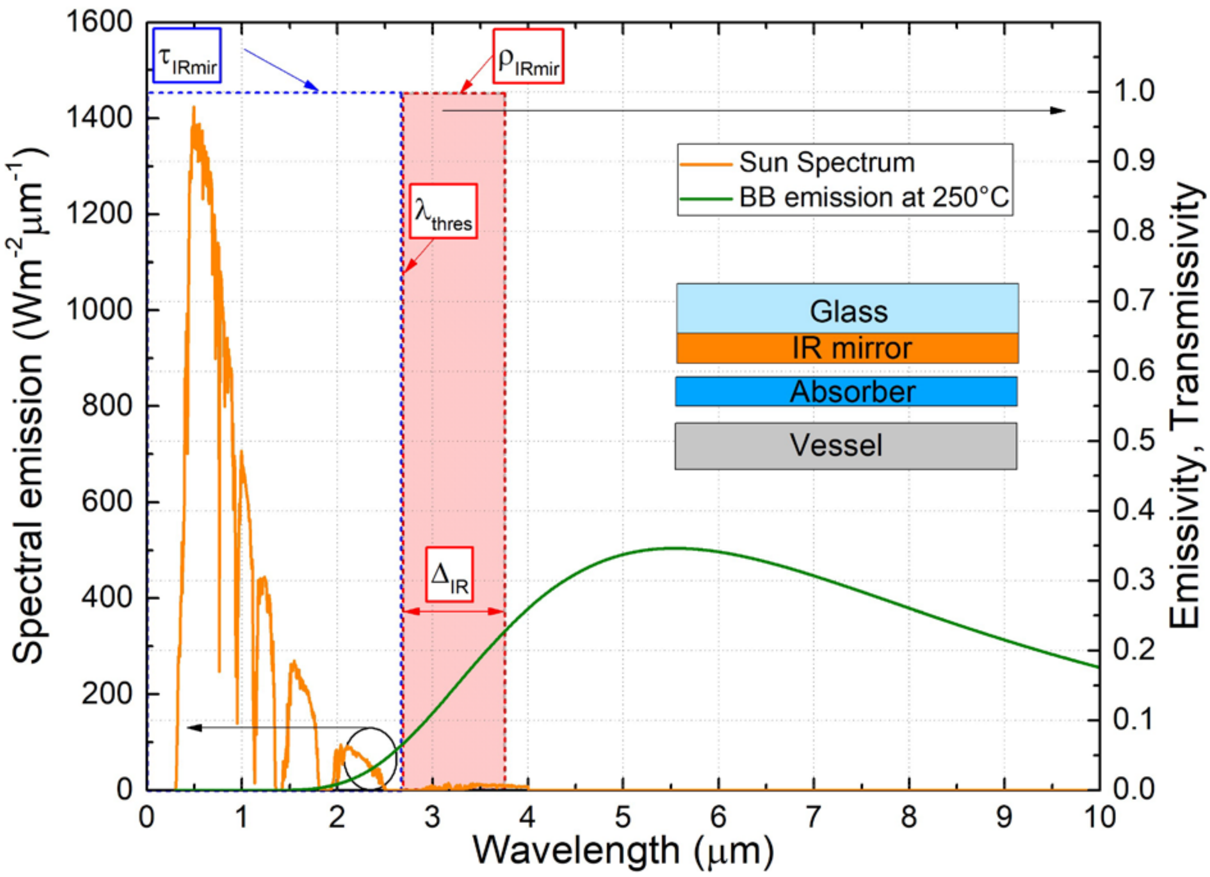

Figure 1: Solar spectral emission (orange line) and blackbody emission (greenline) at 250 °C. The red area highlights a limited region of perfect reflectivity for the IR mirror. The IR mirror transmissivity should be equal to one up to 2.5 µm to permit the solar radiation reaching the absorber. The inset shows a schematic view of a flat panel, composed of an absorber (blue layer) sandwiched between the vessel (grey layer) and the glass(cyan layer). The system is equipped with the IR mirror (orange layer) coated on the internal part of the glass.