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The invention relates to the cooled infra-red radiation detectors and may be used in spectroscopy, radiometry, geophysics and astrophysics.

The bolometer contains a helium refrigerator (1), wherein it is installed a superconductive sensing element (2), to which it is connected a recording device (4). Novelty of the invention consists in that into the refrigerator (1) it is placed a temperature control (3), and the superconductive sensing element (2) is made of a semiconductor, for example, of lead tellurium doped with thallium  $Pb_{1-x}Tl_xTe$ , where x=0,01... 0,0225.



