

ABSTRACT OF THE DISCLOSURE

A superconducting coil device includes a vacuum vessel, a superconducting coil located inside the vacuum vessel, a heat shield surrounding the superconducting coil within the vacuum vessel, and an electric current introduction line for introducing an electric current into the superconducting coil. The electric current introduction line includes an outer current lead part located outside of the heat shield, within the vacuum vessel, and thermally coupled to the heat shield, and an inner current lead part located inside of the heat shield and connecting the outer current lead part to the superconducting coil. The outer current lead part includes a main body serving as an electric current path to the superconducting coil, an insulation layer that covers the main body, and a heat shield layer that covers the insulation layer and has a lower emissivity than the insulation layer.

[Figure 1]