

ABSTRACT

The present invention provides a method for producing a hydrocarbon fuel, comprising a first step of holding a mixture containing an aliphatic compound produced by algae, and a hydrocarbon solvent in which critical temperature is 90°C or higher, in a supercritical state, with temperature and pressure adjusted so that a solubility of the aliphatic compound in the hydrocarbon solvent is 15 g or less per 100 g of the hydrocarbon solvent, and then recovering a soluble portion of the aliphatic compound in the hydrocarbon solvent; and a second step of subjecting the soluble portion recovered in the first step to hydrotreatment using a catalyst.