

Abstract

Disclosed is a method and system for producing a fuel oil and the use thereof, and a fuel oil and the use thereof. The method comprises: (1) bring a sulfur-containing feedstock oil and an alkali metal into contact for a pre-reaction to obtain a pre-reaction material, wherein the pre-reaction is performed under hydrogen-free conditions; (2) bring the pre-reaction material into contact with a hydrogen-supplying agent for a hydrogenation reaction; and (3) separating the material obtained in step (2) to obtain a liquid-phase product fuel oil and a solid mixture. By means of the method of the present invention, inferior and cheap feedstock oils, such as heavy residual oils, can be converted into fuel oils, with a high utilization efficiency of alkali metals and a safe and reliable process.