Title:
The Resources of China’s Oil Shale and the Prospect of its Exploitation and Utilization

Abstract:
Rich in oil shale, China has total resources of 719.9 billion tons of oil shale and 47.6 billion tons of shale oil, comprising 18.2 billion tons of shale oil with an oil content of 5%-10% and 14 billion tons with an oil content of more than 10%. The oil shale resources in China are far in excess of the discovered reserves of natural oil nationwide and ranks second in the world merely after the U.S.A.. The proved oil shale reserves is $330 \times 10^8$ t which is mainly distributed in the Northeast and Middle South of China, with 52.83%, 16.72%, and 13.65% of the total located in Jilin Province, Guangdong Province and Liaoning Province. The exploitation and utilization of oil shale in China dates back to the 1950s due to scarcity of petroleum. In 1959, the annual production of oil shale amounted to 20 million tons, and the annual production of shale oil reached the peak of 0.79 million tons so far. Now the mined oil shale is applied to extraction of shale oil, generation of electricity and comprehensive utilization. The production of extracted shale oil measured up to $16 \times 10^4$ t in 2004. The soaring of the price of crude oil and the advancement of exploitation and utilization technology of oil shale in recent years have brought about historic opportunities for the development of oil shale industry. China’s oil shale industry is stepping into a golden stage of fast development and shale oil will be one of the major substitutes of conventional oil. The annual production of shale oil is anticipated to reach $500 \times 10^4$ t, $1000 \times 10^4$ t, $1500 \times 10^4$ t, $2000 \times 10^4$ t in 2020, 2030, 2040 and 2050 respectively.