

ABSTRACT

Disclosed is a method for partially regenerating a catalyst for methanol and/or dimethyl ether-to-olefin. The method comprises: introducing a mixed gas into a regenerated region containing a catalyst to be regenerated, and subjecting same to a partial regeneration reaction to obtain a regenerated catalyst, wherein the mixed gas contains water vapor and air; and in the regenerated catalyst, the coke content of at least part of the regenerated catalyst is greater than 1%. The method utilizes the coupling of a mixed gas of water vapor and air to activate a deactivated catalyst, selectively eliminate part of a coke deposit in the catalyst to be regenerated, and obtain a partially regenerated catalyst for methanol-to-olefin. Another aspect of the present invention is that further provided is a method for methanol and/or dimethyl ether-to-olefin by using the partially regenerated catalyst for methanol-to-olefin regenerated by means of the method.