

ABSTRACT

A method for continuously producing a (A) dialkyl carbonate and a (B) diol, comprising continuously feeding a cyclic carbonate and an aliphatic monohydric alcohol to a continuous multi-stage distillation column to thereby effect a transesterification therebetween, thereby continuously producing a dialkyl carbonate and a diol, while continuously withdrawing a low boiling point mixture containing the produced dialkyl carbonate (A) in a gaseous form from an upper portion of the distillation column and continuously withdrawing a high boiling point mixture containing the produced diol (B) in a liquid form from a lower portion of the distillation column, wherein the transesterification is performed under conditions wherein: (a) the reaction pressure of the column bottom is  $5 \times 10^4$  Pa or less; (b) the reaction temperature of the column bottom is in the range of from  $-20^\circ\text{C}$  to less than  $60^\circ\text{C}$ ; and (c) the distillation column has an F-factor in the range of from 0.2 to 5.0, the F-factor being represented by the following formula (1):

$$\text{F-factor} = u_g (\rho_g)^{1/2} \quad (1)$$

wherein  $u_g$  represents the gas velocity (m/s) in the distillation column and  $\rho_g$  represents the gas density ( $\text{kg/m}^3$ ) in the distillation column.

