

Title (en)
IMPROVED SOLAR THERMOCHEMICAL REDOX METHOD

Title (de)
VERBESSERTES SOLARTHERMOCHEMISCHES REDOX-VERFAHREN

Title (fr)
PROCÉDÉ AMÉLIORÉ DE REDOX THERMOCHIMIQUE SOLAIRE

Publication
EP 4313849 A1 20240207 (DE)

Application
EP 22719518 A 20220328

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Abstract (en)
[origin: WO2022207553A1] The present invention relates to a method for producing one or more organic compounds, characterised in that a) synthesis gas is produced in a two-stage thermochemical cyclical process using a redox material, b) the synthesis gas thus obtained is subsequently converted into a primary product, consisting of at least one organic compound, using a synthesis method, with gaseous hydrocarbons C_nH_m with $n=1$ to 4 and $m = 4$ for $n = 1$ and $m = 2$ to $2n+2$ for $n = 2$ to 4 are produced as a by-product, and c) the gaseous hydrocarbons are used in the thermochemical cyclical process as a reducing agent for the redox material, the primary product from the synthesis method being one, or a mixture of two or more, organic compounds of general formula $X-(Z)_n-Y$, where Z is selected from (CH_2) and/or $(CH=CH)$, n is 2 to 50, in particular 5 to 50, X and Y are, independently of one another, selected from $-CH_3$, $-OH$, $-COOH$, $-NH_2$, $-O-KW$, KW representing alkyl, aryl, heteroaryl, in particular having 1 to 5 carbon atoms.

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