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(54) Title: GAS PHASE PRODUCTION OF ALKYL ALKANOATE

(57) Abstract: Alkyl alkanoates, e.g., methyl propionate, are made by a gas phase process comprising the step of contacting under carbonylation conditions an alkene (e.g., ethylene), carbon monoxide, an alkanol (e.g., methanol), and a solid sulfide-based metal catalyst (e.g., iron sulfide). The alkyl alkanoate can be converted in a second step to an alkyl ester of an aliphatic carboxylic acid, e.g., methyl methacrylate, through condensation with an aldehyde, e.g., formaldehyde.



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