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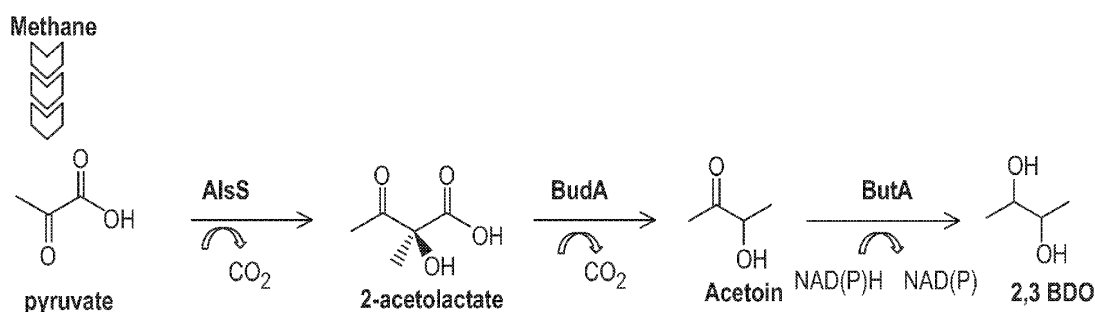
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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

(54) Title: METHODS AND MICROORGANISMS FOR MAKING 2,3-BUTANEDIOL AND DERIVATIVES THEREOF FROM C1 CARBONS



(57) Abstract: Genetically modified microorganisms that have the ability to convert carbon substrates into chemical products such as 2,3-BDO are disclosed. For example, genetically modified methanotrophs that are capable of generating 2,3-BDO at high titers from a methane source are disclosed. Methods of making these genetically modified microorganisms and methods of using them are also disclosed.

[Continued on next page]

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