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(54) Title: YEAST MICROORGANISMS WITH REDUCED BY-PRODUCT ACCUMULATION FOR IMPROVED PRODUCTION OF FUELS, CHEMICALS, AND AMINO ACIDS

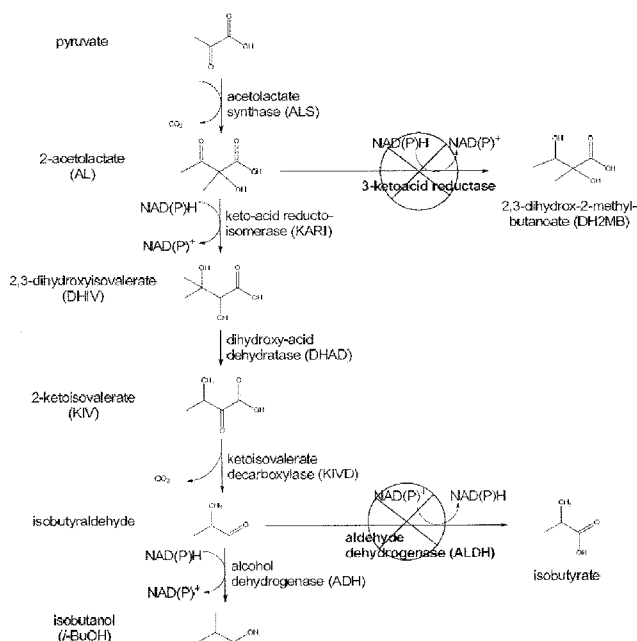


FIGURE 5

(57) Abstract: The present invention relates to recombinant microorganisms comprising biosynthetic pathways and methods of using said recombinant microorganisms to produce various beneficial metabolites. In various aspects of the invention, the recombinant microorganisms may further comprise one or more modifications resulting in the reduction or elimination of 3 keto-acid (e.g., acetolactate and 2-aceto-2-hydroxybutyrate) and/or aldehyde-derived by-products. In various embodiments described herein, the recombinant microorganisms may be microorganisms of the *Saccharomyces* clade, Crabtree-negative yeast microorganisms, Crabtree-positive yeast microorganisms, post-WGD (whole genome duplication) yeast microorganisms, pre-WGD (whole genome duplication) yeast microorganisms, and non-fermenting yeast microorganisms.



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