CLAIMS

1. A process for reducing bio-catalytic oxidation of alcohol, the process comprising:
    a. withdrawing a bleed stream from a fermentation process in a bioreactor, the bleed stream comprising CO_2, an alcohol, and at least one enzyme capable of oxidizing the alcohol, and
    b. treating the bleed stream to reduce oxidation of the alcohol by the enzyme, wherein treating comprises at least one of
        (i) sparging the bleed stream with a nitrogen gas;
        (ii) increasing the temperature of the bleed stream; and
        (iii) depressurizing the bleed stream.
2. The process of claim 1, wherein the alcohol is ethanol.
3. The process of claim 1, wherein the at least one enzyme capable of oxidizing alcohol is selected from the group consisting of NADH dependent alcohol dehydrogenase (EC1.1.1.1), NADPH dependent alcohol dehydrogenase (EC1.1.1.2), aldehyde: ferredoxin oxiodreductase (EC1.2.7.5), acetate kinase (EC2.1.2.1), and phosphotransacetylase (EC 2.3.1.8).
4. The process of claim 1, wherein the enzyme is produced by a C1-fixing bacterium.
5. The process of claim 1, wherein the enzyme is produced by a non-C1-fixing bacterium.
6. The process of claim 1, wherein the enzyme is present in a C1-fixing bacterium.
7. The process of claim 1, wherein the enzyme is present in a non-C1-fixing bacterium.
8. The process of claim 4, wherein the C1-fixing bacterium is present in the bleed stream.
9. The process of claim 5, wherein the non-C1-fixing bacterium is present in the bleed stream.
10. The process of claim 1, wherein the temperature of the bleed stream is increased to a temperature at which the enzyme is denatured.
11. The process of claim 10, wherein the temperature of the bleed stream is increased to at least 60°C.
12. The process of claim 10, wherein the bleed stream is maintained a temperature of at least 60°C for at least 5 seconds.
13. The process of claim 1, wherein the treatment step comprises sparging the bleed stream with nitrogen gas, and, wherein the nitrogen gas displaces at least a portion of the CO_2 from the bleed stream.

14. The process of claim 13, wherein the nitrogen gas displaces substantially all of the CO_2 from the bleed stream.
15. The process of claim 1, wherein the treatment step comprises depressurizing the bleed stream, wherein at least a portion of the CO_2 from the bleed stream is flashed off.
16. A process for reducing bio-catalytic oxidation of ethanol in a product stream, wherein the product stream comprises a primary alcohol, dissolved CO_2, and at least one enzyme capable of oxidizing the alcohol, the process comprising:
    a. withdrawing a product stream from a fermentation process in a reactor; and
    b. treating the product stream to reduce the oxidation of the alcohol,
    wherein treating comprises at least one of
    (i) sparging the product stream with a nitrogen gas;
    (ii) increasing the temperature of the product stream; and
    (iii) depressurizing the product stream.
17. The process of claim 16, wherein the alcohol is selected from the group consisting of ethanol, butanol, 1-propanol and 1-octanol.
18. The process of claim 4, wherein the C1-fixing bacterium is selected from *Clostridium autoethanogenum*, *Clostridium ljungdahlii*, and *Clostridium ragsdalei*.
19. The process of claim 6, wherein the C1-fixing bacterium is selected from *Clostridium autoethanogenum*, *Clostridium ljungdahlii*, and *Clostridium ragsdalei*.