CLAIMS:

1. A process for oligomerizing an olefin stream comprising:

oligomerizing a charge olefin stream over a first, first stage oligomerization catalyst bed to produce a first oligomerized olefin stream;

regenerating said first, first stage oligomerization catalyst bed;

oligomerizing said charge olefin stream over a second, first stage oligomerization catalyst bed to produce a second oligomerized olefin stream;

oligomerizing said charge olefin stream over said first, first stage oligomerization catalyst bed to produce said first oligomerized olefin stream.

2. The process of claim 1 further comprising regenerating said second, first stage oligomerization catalyst bed.

3. The process of claim 1 further comprising regenerating said first, first stage oligomerization catalyst bed by feeding an oxygen gas to the first, first stage oligomerization catalyst bed at elevated temperature.

4. The process of claim 1 further comprising oligomerizing said charge olefin stream over a third, first stage oligomerization catalyst bed to produce an oligomerized olefin stream.

5. The process of claim 1 further comprising discontinuing oligomerizing said charge olefin stream over said first, first stage oligomerization catalyst bed before regenerating said first, first stage oligomerization catalyst bed.

6. The process of claim 1 further comprising discontinuing oligomerizing said charge olefin stream over said second, first stage oligomerization catalyst bed before regenerating said second, first stage oligomerization catalyst bed.

7. The process of claim 1 further comprising regenerating said first, first stage oligomerization catalyst bed by feeding an inert gas, a hydrocarbon, or a solvent to the catalyst bed at elevated temperature.

8. The process of claim 7 further comprising feeding an oxygen gas to the catalyst bed at elevated temperature.

9. The process of claim 1 further comprising:

oligomerizing an oligomerized olefin stream over a first, second stage oligomerization catalyst bed to produce a first oligomerate stream;

regenerating said first, second stage oligomerization catalyst bed;

oligomerizing said oligomerized olefin stream over a second, second stage oligomerization catalyst bed to produce a second oligomerate stream.

10. The process of claim 9 further comprising regenerating said second, second stage oligomerization catalyst bed.

11. The process of claim 9 further comprising regenerating said first, second stage oligomerization catalyst bed by feeding an oxygen gas to the first, first stage oligomerization catalyst bed at elevated temperature.

12. The process of claim 9 further comprising regenerating said first, second stage oligomerization catalyst bed while oligomerizing said oligomerized olefin stream over said second, second stage oligomerization catalyst bed.

13. The process of claim 1 comprising oligomerizing a charge olefin stream over said first, first stage oligomerization catalyst continuously for at least two weeks.

14. The process of claim 9 further comprising oligomerizing said oligomerized olefin stream over first, second stage oligomerization catalyst continuously for at least two weeks.

15. A process for oligomerizing an olefin stream comprising:

oligomerizing a charge olefin stream over a first, first stage oligomerization catalyst bed to produce a first oligomerized olefin stream;

oligomerizing said first oligomerized olefin stream over a first, second stage oligomerization catalyst bed to produce a first oligomerate stream;

regenerating said first, second stage oligomerization catalyst bed; and

oligomerizing said first oligomerized olefin stream over a second, second stage oligomerization catalyst bed to produce a second oligomerate stream.

16. The process of claim 15 further comprising regenerating said second, second stage oligomerization catalyst bed.

17. The process of claim 15 further comprising regenerating said first, second stage oligomerization catalyst bed by feeding an inert gas, a hydrocarbon, or a solvent to the first, second stage oligomerization catalyst bed at elevated temperature and feeding an oxygen gas to the first, second stage oligomerization catalyst bed at elevated temperature.

18. The process of claim 15 further comprising discontinuing oligomerizing said oligomerized olefin stream over said first, second stage oligomerization catalyst bed before regenerating said first, second stage oligomerization catalyst bed.

19. The process of claim 16 further comprising discontinuing oligomerizing said oligomerized olefin stream over said second, second stage oligomerization catalyst bed before regenerating said second, second stage oligomerization catalyst bed.

20. A process for oligomerizing an olefin stream comprising:

oligomerizing a charge olefin stream over a first, first stage oligomerization catalyst bed to produce a first oligomerized olefin stream;

regenerating said first, first stage oligomerization catalyst bed;

oligomerizing said charge olefin stream over a second, first stage oligomerization catalyst bed to produce a second oligomerized olefin stream;

oligomerizing said first oligomerized olefin stream or said second oligomerized olefin stream over a first, second stage oligomerization catalyst bed to produce a first oligomerate stream;

regenerating said first, second stage oligomerization catalyst bed;

oligomerizing said first oligomerized olefin stream or said second oligomerized olefin stream over a second, second stage oligomerization catalyst bed to produce a second oligomerate stream.