
VC210
CHEMISTRY

Quiz 2
Review Exercise Answer

VC210 TA Group FA2018

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1 Gas

1. 4.56mol
2. 0.174 103.4 26.77 127.04
3. 2.38atm
4. 2.94atm
5. O_2 and NO_2
0 0.339 0.323
6. 58.7
7. 73.1
8. 206.5 8.33×10^{-3} 78.3
9. 1.88
10. 557.67 1577.33
11. 232.7 1.64×10^{-25}
12. 0.39
13. 413
14. A B C
15. 15.21 15.32
16. $Ga^{3+} > Ca^{2+} > K^+$
17. C
18. 8 molecules
19. Strong: ABD
Week: C
20. hexane>pentane>neopentane
21. 8.1×10^5 1.92×10^6 B B
22. Not a question

- 23. 5.31×10^{-4}
- 24. Not a question
- 25. True: A B
False: C D
- 26. 8.28×10^{22} 4.14×10^{22} 2.42×10^{-23} 2.89×10^{-8}
- 27. 11.1
- 28. 4 A
- 29. 0.564 D

2 Thermodynamic

- 1. -2.88kJ
- 2. 4.79Cal/g
- 3. 5.592 -6.004
- 4. -725.4 -597.1
- 5. 0.4176
- 6. 99.39 99.39
- 7. TICI
- 8. 80.6 48.4
- 9. -6047.8kJ
- 10. 2.54 1.12 1.35 1.46
- 11. -564.2 -184.6
- 12. 3.74 -3267.5 -3263.8
- 13. A C B D
- 14. 324.4
- 15. 9.29J/K

16. A B
17. 46.8
18. C/3
19. 116.45
20. 0.137 0.256
21. B
22. B 601
23. A C
24. -650.7 A
25. 1468.1
26. -454.38 -15.52 -449.76

3 Physical Equilibra

1. A B
2. 28.29 91.6 0.98 36
3. A
4. 23.74
5. 0.172 0.828
6. 0.0631
7. 2.73×10^{-2} 2.45×10^{-4} 8.4×10^{-5}
8. Not a question
9. 0.0844 5.12
10. 8.36 0.527 1.47
11. 450.0
12. 6.14×10^3

13. 0.420 78.9

14. -18.2 105

15. 0.0444 0.0175 175

16. 1556

17. 1.77 131

4 Chemical Equilibrium

1. -10.2kJ/mol

2. 1.55×10^{-3}

3. 1.14×10^8

4. 57 255 57 0