**Chemical Concentration Units Self-Check**

Given: MW=sample molecular weight (g/mol) , W=sample mass, and V=solution volume

1. **Moles=**
2. M\*MW b) MW/W c) W/MW d) 6.02\*1023 W/MW
3. **ppm w/v** is the same as:
4. W(μg)/V(L) b) W(mg)/V(L) c) W(mg)/V(mL) d) W(g)/V(L)
5. **0.3% w/v solution =**
6. 0.3 g/ 100 mL solution
7. b) 0.3 g/1 L of solution
8. c) 3 g/100 mL solution
9. d) 3 mg/100 mL solution
10. **5 ppt w/v is the same as:**
11. 5 g/1000 mL solution b) 5 mg/1 mL solution c) 0.5 g/ 0.1L solution d) all are the same
12. 5 mL of a 2 M solution of Ni2+ (atomic mass= 58.68 g/mol) is diluted to 1000 mL with 1% nitric acid.

Then 10 mL of the diluted solution is transferred to a 100 mL volumetric flask and re-diluted to the mark. **The expression leading to the correct value for the final ppm (w/v) of Ni2+ is:**

1. 2 \*(5/1000)\*(10/100) b) 5/1000\*(10/100)\*(58.68) c) 2\*(5/1000)\*(10/100) \*(58.68) \*1000 d) 2\* 5/1000\*57.68

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