ـــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــــ

**وازني معادلة الأكسدة والاختزال الآتية بطريقة عدد التأكسد :**

**Cu + HNO3 Cu(NO3) + NO2 + H2O**

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**قارني بين معادلة الأكسدة والاختزال في وسط حمضي ووسط قاعدي ( قلوي )**

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**وازني التفاعل التالي في الوسط الحمضي بطريقة عدد التأكسد**

**CLO4-  + Br-  CL- + Br2**

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**فسري لماذا تعد كتابة أيون الهيدروجين على الصورة H+ في تفاعلات الأكسدة والاختزال تبسيطا للواقع .**

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**وازني التفاعل التالي بطريقة نصف التفاعل**

**Fe +Cu2+ + SO42- Cu + 2Fe3+ + 3SO42-**

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**وازني المعادلة التالية بطريقة نصف التفاعل قي وسط حمضي :**

**KMnO4 + SO2 MnSO4 +K2SO4**

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