

REAKSI REDOKS

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Kelompok : 2

I. Tujuan Percobaan

Menentukan berbagai reaksi redoks pada logam dan larutan.

II. Dasar Teori

Kata redoks adalah singkatan dari kata reaksi-oksidasi yang terjadi dalam reaksi kimia tertentu. Reaksi tersebut adalah persamaan kimia di mana jumlah oksidasi atom yang terlibat dalam reaksi kimia berubah ketika reaksi terjadi.

Bilangan oksidasi didefinisikan sebagai muatan yang dimiliki suatu atom jika seandainya elektron diberikan kepada atom yang lain yang keelektronegatifannya lebih besar. Jika kedua atom diberikan maka atom yang keelektronegatifannya lebih kecil lebih positif sedangkan atom yang keelektronegatifannya lebih besar memiliki bilangan oksidasi negatif.

Bilangan oksidasi adalah angka yang persis sama dengan valensi atom tetapi nomor oksidasi membawa tanda dengan itu. Tanda ini mengungkapkan sifat muatan pada spesies yang sesuai ketika terbentuk dari atom netral. Mari kita memahami hal ini melalui contoh. Bilangan oksidasi klorin dalam asam klorida (HCl) adalah -1, asam klor (HClO₃) adalah +5 dan asam perklorat (HClO₄) itu adalah +7.

Pengertian oksidasi dan reduksi dapat ditinjau berdasarkan 3 landasan teori, yaitu :

a. Reaksi Pengikatan dan pelepasan unsur oksigen

Reaksi oksidasi (pengoksigenan) adalah peristiwa penggabungan suatu zat dengan oksigen.

Contoh:



Reaksi oksidasi logam dikenal juga dengan nama perkaratan. Reaksi pembakaran juga termasuk reaksi oksidasi, misalnya pembakaran minyak bumi, kertas, kayu bakar, dll.

Reaksi reduksi adalah peristiwa pengeluaran oksigen dari suatu zat.

Contoh

Praktikum Reaksi Redoks

David Kirk



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