

Re: Law of reciprocal proportions, problem with NH3 and N2O Example...

Source: <http://sci.tech-archive.net/Archive/sci.chem/2005-09/msg00589.html>

- *From:* xxx@xxxxxx (Octa Ex)
 - *Date:* Tue, 27 Sep 2005 00:22:49 GMT
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On 26 Sep 2005 09:36:57 -0700, ali.jan@xxxxxxxxxx etched in cyberspace:

>Hi,

>

>A quick definition of Law of Reciprocal Proportions and an example:

>

>"Law of Reciprocal Proportions: Richter gave this law in 1792. It
>states that the two weights of two or more different elements which
>separately combine with a definite weight of another element will be
>the same as, or simple multiples of the proportions of the weights of
>these different elements when they combine amongst themselves. Carbon
>and Hydrogen combine with oxygen separately to form two oxides- CO2 and
>H2O. In CO2, 12 gms of Carbon combines with 32gms of Oxygen. In water,
>two gms of Hydrogen combines with 16gms of Oxygen. So here 12 gms of
>carbon and 4 gms of hydrogen combine with a definite weight 32 gms of
>oxygen. When carbon and hydrogen will combine with each other they must
>have a ratio of 12:4 or a simple multiple of this ratio and actually in
>methane CH4 they have the same ratio which is according to this Law of
>Reciprocal Proportions." Source : <http://ed.augie.edu/~pdhungel/>

>

>I fail to see how this example works with Ammonia(NH3) and
>DiNitrogenOxide(N2O).

>NH3 comes in the ratio 14:3 while N2O comes in the ratio 14:8. With
>themselves, they make a ratio of 8:3. Now in case of water, the ratio
>between O and H is 8:1. 8:1 is neither a multiple nor the same as 8:3.

>

>What am I doing wrong here? I am, I think, exactly following the above
>example of CO2 and H2O.

>

>Kind Regards,

>

>Ali

>

8:3 is a multiple of 8:1 it is three times different,
this matches the apparent valencies of N 1 for N2O and 3 for NH3.

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Re: Law of reciprocal proportions, problem with NH3 and N20 Example...

X
X X

• **Follow-Ups:**

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◇ From: ali . jan

• **References:**

- ◆ **Law of reciprocal proportions, problem with NH3 and N20 Example...**
◇ From: ali . jan

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