

Re: Quantitative Analysis of CaO in the mixture

Source: <http://sci.tech-archive.net/Archive/sci.chem/2006-01/msg00294.html>

- *From:* raconte@xxxxxxxxxxxx
 - *Date:* 28 Jan 2006 09:42:17 -0800
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lms7832@xxxxxxxx wrote:

- > Dear
- >
- > I have powders which is mixtures of CaO, CaTiO₃, CaCO₃..
- >
- > Then I'm not sure the percentage of CaO in the powder.
- >
- >
- > Is there any easy way to find that?
- >
- > I think that only CaO react with water and then convert into Ca(OH)₂.
- >
- > But other component is not react with water.
- >
- > By using this chemical reaction, I'd like to measure CaO content(%) in
- > the powder.
- >
- > Does this method make sense?
- >
- > Please give me some advices.
- >
- > Thank you.

I think I'd work backwards. There may be an elemental test for Ti, and you could react the mixture with acid to quantitate the amount of carbonate by CO₂ release. The remainder would be CaO, though it would possibly be lost in the process.

I don't recall the CaO + water reaction as being a quantitative reaction -- that is to say, not all of it will react rapidly with water to produce CaOH, some will always remain as CaO.

Furthermore, you have CaOH, now what? You can't titrate the resulting base with acid and an indicator, because you still have carbonate.

And don't call me "Dear" unless you mean it. Its not fair to toy with people's emotions so close to Valentines.

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- **References:**

- ◆ [Quantitative Analysis of CaO in the mixture](#)

- ◇ From: lms7832

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