Procedure to dissolve and reprecipitate barite

Goal: To concentrate the barite in cruddy samples in order to run for S-isotopes
Barium is not preserved, Sulfur is preserved

1. Weigh out Na2CO3
   Proportions .005g barite : .05 g Na2CO3
2. Put sample in Teflon beaker
3. Add Na2CO3
4. Add 1 ml of milli-q water. Close and shake gently
5. Place in 95C over for 4 hours
   Check every hour to maintain the water leverl – don't let it go dry.
6. Acid wash in 10% HCl glassware for filtering – each sample needs a vacuum flask
   which will contain the liquid sample of SO4 we want to keep
7. Remove sample from oven – allow to cool
8. Filter out residue using vacuum filtration
   Filters 0.4 um
   Filter through 15ml of milli-q to rinse off the SO4 from the sediment residue
9. Acidify sample in flask with HCl to pH2
   Used trace metal concentrated
10. Add 10% solution of BaCl2
    Pipetted in 2ml at a time and swirled to mix
    Barite can be hard to see, looks cloudy
11. Let sit over night
12. Filter reprecipitated barite on 0.4um filter paper with vacuum filtration
13. Let dry and weigh.