

GLI Method Summary

Microwave Assisted Acid Digestion of Samples for Metals Analysis

Governing SOP: G-52 Rev 9

Analyte: Various

Range: ppb-%

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| Procedure | An appropriate amount of sample is weighed into a microwave vessel to the nearest 0.001 g. The appropriate reagents are then added to the microwave vessel. If a visible reaction is observed the reaction is allowed to cease before capping the vessel. The vessel is then sealed and placed in the microwave according to the manufactures' directions. The temperature of each vessel should reach a minimum of $180\pm 10^{\circ}\text{C}$ in 5 minutes. It should remain at a minimum of $180\pm 10^{\circ}\text{C}$ for 10 minutes. At the end of the microwave program the vessels are allowed to cool for a minimum of 5 minutes before removal. The vessels are then uncapped and transferred to volumetric flasks for analysis by the proper technique. |
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References

R. Bock, *Decomposition Methods in Analytical Chemistry*, T. & A. Constable Ltd., Edinburgh, 1979.

ASTM D4309 (11.01), *Standard Practice for Sample Digestion Using Closed Vessel Microwave Heating Technique for the Determination of Total Metals in Water*, 1992.