SUPPLEMENTARY INFORMATION

Mercury Determination in Soil by CVG-ICP-MS After Volatilization Using Microwave-Induced Combustion - Rochele Sogari Picoloto, Helmar Wilsche, Günter Knapp, Juliano Smanioto Barin, Erico Marlon Moraes Flores

1. Steps of microwave-induced combustion method for digestion of soil and further determination of Hg by CVG-ICP-MS.

   Soil sample (300mg) + celullose (300mg) + 50 µL NH₄NO₃ solution

   Absorbing solution H₂O or HCl or HNO₃ (6 mL)

   High pressure quartz vessels

   Oxygen pressurization 20 bar

   Microwave irradiation 5 min (reflux step)

   COMBUSTION

   Hg determination CVG-ICP-MS

2. Soil sample and microcrystalline cellulose pressed as pellet for MIC digestion above the quartz holder device.
3. View of soil + microcrystalline cellulose combustion using MIC (300 mg of sample, 20 bar O₂, 5 s of microwave irradiation, temperature ~ 1200°C).

4. Aspect of pellet of mixed microcrystalline cellulose and soil: (a) before and (b) after combustion procedure; (c) aspect of final solution obtained using microwave induced combustion with 0.25 mol L⁻¹ HNO₃ as solution absorbing (dilution to 30 mL with water).