Determination of gold in industrial waste by activated carbon concentration and atomic absorption spectrophotometry

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Abstract: Gold in industry waste is determined by activated carbon concentrationa and atomic absorption spectrophotometry. First, sample must be selected. Secondary, organism in the sample is oxidized with mixed acid, and gold in it is dissolved with aquaregia. A part of test solution is taken in order to concentrate gold completly with activated carbon. The activated carbon adsorpted gold is washed with HCl and NH_4HF_2, and meantime some impurities in it are removed. The results of this method are in conformity with the those of fire assaying. But the method is characterized with a low analytical cost, little pollution, fast analysis and relative standard deviation less than 1.20%.

Key words: atomic absorption spectrophotometry; industrial waste; gold