

Highly Sensitive Adsorptive Stripping Voltammetric Method for Determination of Trace Vanadium

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Differential pulse adsorptive cathodic stripping voltammetric method for determination of trace Vanadium(V) has been developed. In the determination hydroxy naphthol blue was used as complexing agent. 0.2 mol L⁻¹ acetate buffer of pH 5.0 served as the supporting electrolyte. At the potential of -0.35 V a well-defined voltammetric peak was formed. Ligand concentration, accumulation time, drop size, scan rate, pulse amplitude, *etc.* have been optimised. Under optimum conditions detection limit was 0.1 µg L⁻¹ for V(V). The developed method was highly selective and sensitive, and has been applied to the determination of vanadium in water spiked with V(V), in effluents, and in standard alloy samples.