

## Original Research Article

## Better Wavelength for Cadmium Analysis between 228.8 Nanometer and 228.9 Nanometer in Atomic Absorption Spectrophotometry

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**Abstract:** Several wave-lengths can be used for an element analysis on atomic absorption spectrophotometry [1]. Et Park *et al.* [2] wrote that the wave-length of cobalt determination can be changed. So this time the researchers tried to find out the better wave length for cadmium (Cd) analysis. The researchers found that the flat state from the minus to the plus seems to be good for the appropriate Cd analysis (Figure 1). There is another thing for the appropriate wave length; the thing is the pillar near the 228.9 nanometer.

**Keywords:** 228.9 nanometer, atomic absorption spectrophotometry, cadmium, flat state, pillar, wave-length.

## INTRODUCTION

Several wavelengths can be used for an element analysis on atomic absorption spectrophotometry [1]. Et Park *et al.* [2] wrote that the wave length of cobalt determination can be changed. So this time the researchers tried to find out the better wave length for cadmium (Cd) analysis.

## MATERIALS AND METHODS

The used atomic absorption spectrophotometer was Varian product. And it is well known that 228.8 nm is advised for Cd analysis [1], but the researchers tried to treat the condition of 228.9 nm.

## RESULTS AND DISCUSSION

Figure 1 (the figure number 24) shows the change of absorption for cadmium (Cd) analysis from the right part to the left part, and the position of 228.8 nanometer (nm) was indicated good for the Cd analysis. It is because the direction of absorption was changed from the minus to plus. But it is shown that the better position seems to be 228.9 nm, it is because this spot seems to the just point of turning point from minus to plus.

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Figure 2 (the figure number 23) also shows the similar change of value from the minus on the right side to the plus on the left side. And there is a specific sign of large pillar.

The researchers found that the flat condition from the minus to the plus seems to be good for the appropriate Cd analysis (Figure 1). There is another thing for the appropriate wave length; the thing is the pillar near the 228.9 nanometer.

(Figure1. The change of absorption for cadmium (Cd) analysis from the right part to the left part, and the position of 228.8 nanometer (nm).

(Figure 2. The change of value from the minus side on the right side to the plus one on the left side.)

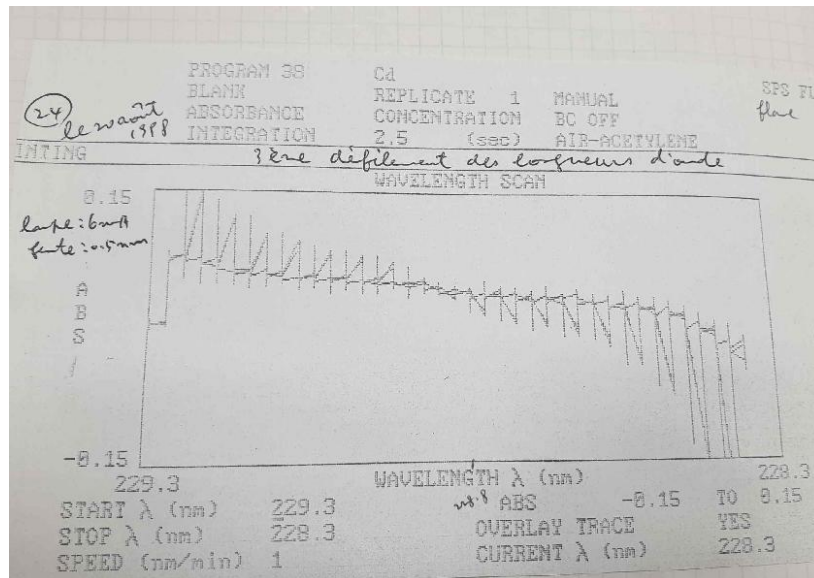


Fig-1: The change of absorption for cadmium (Cd) analysis from the right part to the left part, and the position of 228.8 nanometer (nm)

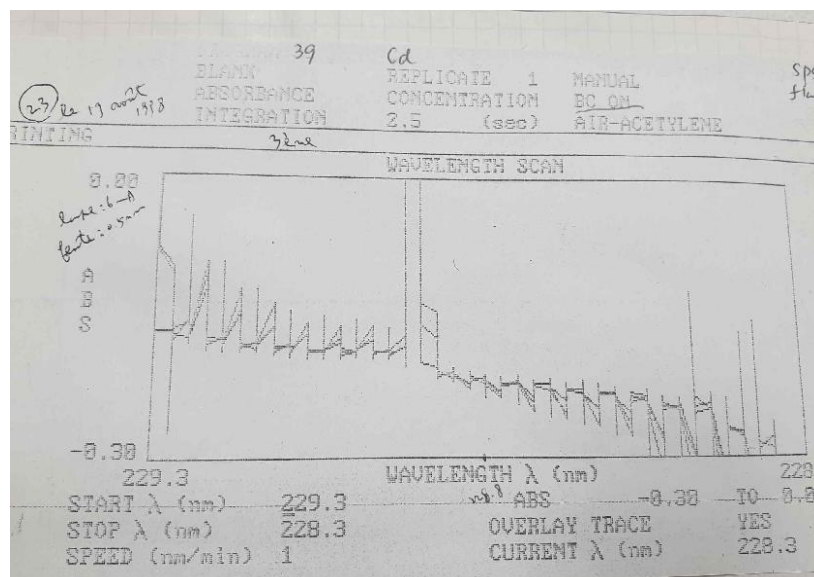


Fig-2: The change of value from the minus side on the right side to the plus one on the left side

### Further suggestions

The practical analysis is necessary for the certification of this theoretical work.

### Conflicts of interests

There are no conflicts of interests to declare.

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