

ICS 77.120.40
CCS H13

YS

**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 928.3-2026

Replacing YS/T 928.3-2013

**Chemical analysis methods of nickel cobalt manganese ternary precursor - Part
3: Determination of nickel, cobalt and manganese contents - Na₂EDTA titration
method and inductively coupled plasma atomic emission spectrometry**

镍钴锰三元前驱体化学分析方法 第3部分：镍、钴、锰含量的测定 Na₂EDTA 滴
定法和电感耦合等离子体原子发射光谱法

(English Translation)

Issued on: April 15, 2026

Implemented on: November 1, 2026

Issued by: Ministry of Industry and Information Technology

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Foreword

YS/T 928.3-2026 is a recommended industry standard of the People's Republic of China in the Nonferrous Metals sector, approved and issued by the Ministry of Industry and Information Technology on 15 April 2026, with effect from 1 November 2026.

This edition replaces YS/T 928.3-2013.

Classification: ICS 77.120.40; CCS H13.

1 Scope

Part 3 of the series on chemical analysis of nickel cobalt manganese ternary precursors describes the determination of nickel, cobalt and manganese contents by two methods: the Na₂EDTA titration method (method 1) and inductively coupled plasma atomic emission spectrometry (method 2). Method 1 determines the combined mass fraction of nickel, cobalt and manganese, and method 2 determines the mass fraction of each element. The measuring ranges are 60.00% to 75.00% for the combined content, 20.00% to 71.00% for nickel, 2.00% to 25.00% for cobalt and 2.00% to 25.00% for manganese.

It is used by precursor producers, by battery cathode material makers who buy the precursor, and by analytical laboratories. It is voluntary, as the /T in the code shows. It was approved by the Ministry of Industry and Information Technology, issued on 15 April 2026 and takes effect on 1 November 2026. It replaces YS/T 928.3-2013.