[Name of Document] What Is Claimed is

[Claim 1] A method for recovering a valuable material from a lithium ion secondary battery, the method comprising:

a heat treatment step of performing heat treatment on a lithium ion secondary battery;

a crushing step of crushing a heat-treated object obtained through the heat treatment step;

a first stage of classification step of classifying a crushed object obtained through the crushing step based on a classification point of 1.2 mm or more and 2.4 mm or less, and a second stage of classification step of classifying an intermediate product and a fine particle product obtained on a fine side in the first stage of classification step based on a classification point of 0.3 mm or less; and

a dry magnetic separation step of repeating one time or more a step of performing dry magnetic separation on an intermediate product obtained on a coarse side in the second stage of classification step and performing dry magnetic separation again on magnetically attracted matter obtained through the dry magnetic separation on the intermediate product, wherein

the valuable material includes cobalt and / or nickel,

the heat treatment on the lithium ion secondary battery is performed at 670 ℃ or more and 1100 ℃ or less.

[Claim 2] The method for recovering a valuable material from a lithium ion secondary battery according to claim 1, wherein

aluminum is melted and separated in the heat treatment step to be recovered.

[Claim 3] The method for recovering a valuable material from a lithium ion secondary battery according to claim 1 or 2, wherein

in the magnetically attracted matter obtained through the dry magnetic separation step, a content of carbon as a material derived from a negative electrode active material is less than 5%.

[Claim 4] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 3, wherein

in the magnetically attracted matter obtained through the dry magnetic separation step, a grade of copper as a metal derived from a negative electrode current collector is less than 0.2%.

[Claim 5] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 4, wherein

the heat treatment step is performed under a low oxygen atmosphere having an oxygen concentration of 10.5 mass% or less.

[Claim 6] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 5, further comprising

a dry magnetic separation step of performing dry magnetic separation on a coarse particle product obtained on a coarse side in the first stage of classification step.