[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 classification step of classifying a crushed object obtained through the crushing step into a coarse particle product and a fine particle product based on a classification point of 0.45 mm or more; and

a wet magnetic separation step of performing wet magnetic separation on the fine particle product obtained through the classification step , wherein

the valuable material includes cobalt and / or nickel,

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

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

a classification point of 0.6 mm or more and 2.4 mm or less is used in the classification step.

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

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

[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

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

[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

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

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

in the magnetically attracted matter obtained through the wet magnetic separation step, a grade of fluorine is less than 1%.

[Claim 7] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 6, wherein

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

[Claim 8] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 7, further comprising

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

[Claim 9] The method for recovering a valuable material from a lithium ion secondary battery according to any one of claims 1 to 8, wherein

a slurry of magnetically unattracted matter separated in the wet magnetic separation step is subjected to solid-liquid separation, and then a carbon dioxide gas is blown into the liquid.