

ABSTRACT

METHOD OF PRODUCING REGENERATED HYDROTREATING CATALYST AND METHOD OF PRODUCING PETROLEUM PRODUCTS

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A method of producing a regenerated hydrotreating catalyst, comprising a first step of preparing a hydrotreating catalyst that has been used for hydrotreatment of a petroleum fraction and has a metal element selected from Group 6 elements of the periodic table; a second
10 step of performing regeneration treatment for part of the catalyst prepared in the first step, then performing X-ray absorption fine structure analysis for the catalyst after the regeneration treatment, and obtaining regeneration treatment conditions in which a ratio IS/IO of a peak intensity IS of a peak attributed to a bond between the metal
15 element and a sulfur atom to a peak intensity IO of a peak attributed to a bond between the metal element and an oxygen atom is in the range of 0.1 to 0.3 in a radial distribution curve obtained from an extended X-ray absorption fine structure spectrum; and a third step of performing regeneration treatment under regeneration treatment conditions
20 determined based on the second step, for the other part of the catalyst prepared in the first step.

Figure 1