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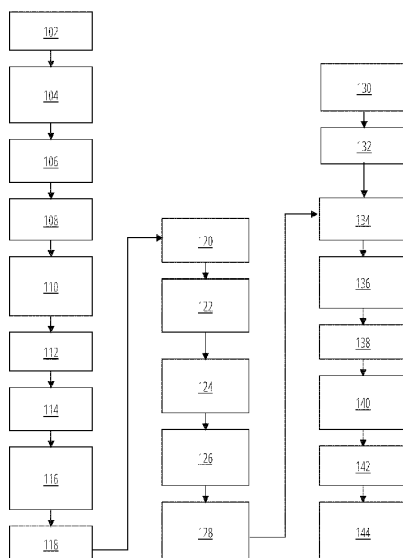


FIG. 1

(57) Abstract: A hydrocracking catalyst comprises an active cracking support. The active cracking support comprises a post-modified zeolite framework having zirconium atoms and titanium atoms substituting for aluminum atoms; wherein: a portion of the zirconium atom are substituted in the post-modified zeolite via 4-coordination; a portion of the zirconium atom are grafted to the postmodified zeolite via 5-coordination; and the titanium atoms are substituted in the post-modified zeolite framework via 4-coordination.

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