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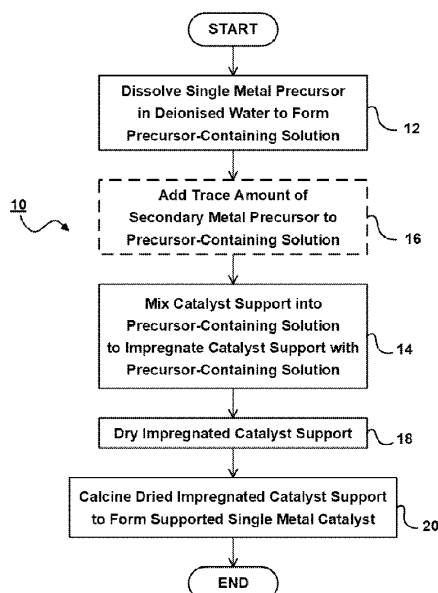


FIG. 1

(57) Abstract: A catalyst, a catalyst synthesis method (10) and a catalytic plastic conversion method (50) are provided. The catalyst includes a single metal oxide on a catalyst support. 5 The catalyst synthesis method (10) includes dissolving (12) a single metal precursor in deionised water to form a precursor-containing solution, mixing (14) a catalyst support into the precursor-containing solution to impregnate the catalyst support with the precursor-containing solution, drying (18) the impregnated catalyst support, and calcining (20) the dried impregnated catalyst support to form a supported single metal oxide catalyst.

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