6. The process of any of the preceding claims, wherein at least a portion of the first metal in the catalyst precursor in step (1A) is in an oxidation state higher than zero.

7. The process of any of the preceding claims, wherein the catalyst precursor further comprises at least one of: (iii) from 0.01 wt% to 5.0 wt% of a second metal selected from Group 14 of the Periodic Table of Elements; and (iv) from 0.01 wt% to 10.0 wt% of a third metal selected from the Groups 1 and 2 metals of the Periodic Table of Elements.

8. The process of claim 7, wherein the second metal comprises Sn and the third metal comprises K.

9. The process of any of the preceding claims, wherein in step (1B), the H_2-containing atmosphere comprises at least 90 wt% of hydrogen.

10. The process of any of the preceding claims, wherein step (1B) comprises treating the catalyst precursor in a flowing stream of H_2-containing atmosphere.

11. The process of any of the preceding claims, wherein the H_2-containing atmosphere in step (1B) has a benzene concentration of at most 1 wt%, based on the total weight of the H_2-containing atmosphere.

12. The process of any of the preceding claims, wherein in step (1Bb) the first composition further comprises hydrogen, and in step (1B) the H_2-containing atmosphere is the first composition.

13. The process of any of the preceding claims, wherein after step (1B) but before step (1C), the activated dehydrogenation catalyst is protected by a protective atmosphere free of O_2.

14. The process of claim 13, wherein the protective atmosphere comprises at least one of H_2 and CH_4.

15. The process of any of the preceding claims, wherein step (1A) comprises: