Katsuodashi, a dried bonito broth, is very basic and indispensable in Japanese cuisine and contains taste-exhibiting components and unique aroma. We previously reported that its unique aroma contributes to the preference and reinforcement effect associated with dried bonito. This study aims to elucidate the contribution of aromatic components in Katsuobushi to preference formation and reinforcement effect. Volatile components obtained from dried bonito were fractionated and the fractions were subjected to two-bottle choice test. The fractionation test suggested that the component responsible for the preference is not one but comprises multiple components. In the GC–MS analysis/reconstruction test, solution with aromatic flavor narrowed down to 125 compounds had preference, and also had reinforcement effect. Moreover, GC–MS–olfactometry analysis narrowed down the candidate components to 28 out of 125. Mice showed preference for the test solution with aromatic flavor reconstructed with 28 components but did not show reinforcement behavior.

