

Hot compressed water treatment of ginseng

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The medical active components of the ginseng are ginsenosides. It is widely known that the ginsenosides have anti-cancer & anti-allergic effects and can improve blood circulation. Therefore, extract of ginseng has been used as a tonic water. Among the ginsenosides, there are decomposed ginsenosides. They can be made by deglycosylation and dehydration. The decomposed ginsenosides such as Rg3, Rk1, Rg 5 are more bioavailable and bioactive, so there have been many tries to increase them.

Generally, ginseng is steamed to get the decomposed ginsenosides. Red ginseng and Sun ginseng are steamed at 100°C and 120°C respectably. This method is kind of time-consuming. Another method is to ferment ginseng with microorganisms or enzymes, but the process is still long and the yield is low too.

To fix the problems, ginseng was treated using hot compressed water at various reaction times and temperatures with an additive. Hot compressed water was able to change normal ginsenosides, which are in the fresh ginseng, to decomposed ginsenosides in a short reaction time.