

Instant Coffee with Natural Aroma by Spray-Drying

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SUMMARY

Recently, for the purpose of preserving aroma freeze concentrating and freeze-drying have been applied to coffee extract to produce an instant coffee powder of higher quality. However, one drawback is that such drying is very expensive. On the other hand, although the cost of the original high temperature spray drying is quite low, this method most adversely affects the quality.

To overcome these weak points, aroma retention of product made with a single nozzle low temperature spray drying system has been studied. Qualitywise, the product spray dried in the low temperature drying chamber has proved to have much more natural taste, being closer to the original extract independent of whether such extract was thermally or freeze concentrated. It also lacks caramel and burnt/over-cooked flavour notes that are present in the powder produced by the conventional high temperature spray dryer. Aroma retention in the product made by the low temperature spray-drying method is superior to that obtained in the product made by the conventional high temperature spray-drying method.