

Chemical synthesis of carotenoids for reference standards

Yosuke Demizu

Division of Organic Chemistry, National Institute of Health Sciences

For quality assurance of food additives, it is important to establish component standard tests by developing highly accurate analytical and evaluation methods. In this study, chemical synthetic methods for stable and high-quality supply of carotenoids were developed. Many of the carotenoids are supplied from natural raw materials and it is difficult to obtain high-purity standards. Thus, development of analytical methods by establishing total synthetic routes of those carotenoids is required. In this paper, the synthetic methods for crocetin, capsaicin, and capillin were described.