研究業績　英文表記

和文	
表題	キクイモに含まれるイヌリンの安定性に及ぼす加熱および pH の影響
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英文	
Title	Effects of Heating and pH on The Stability of Inulin Contained in Jerusalem Artichoke
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Abstract	Herein, the effects of heating and pH on inulin, a water-soluble polysaccharide contained in Jerusalem artichoke were investigated. The inulin in Jerusalem artichoke dry powder was reduced by roasting at a minimum of 160 °C, likely due to the decomposition of inulin and caramelization reaction of fructose upon heating. Moreover, inulin was significantly reduced due to acid decomposition under strongly acidic conditions, which was more significant at increased temperature and longer heating times. The elution of inulin to water from raw Jerusalem artichoke was approximately 30% for the extraction at 40 °C for 1 h and approximately 50% for extraction at 95 °C for 10 min. In conclusion, inulin in Jerusalem artichoke was reduced by heating at high temperatures, strongly acidic conditions, and prolonged water exposure.
keyword	Jerusalem artichoke, inulin, heating, pH

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