不同催芽條件對發芽糙米之抗氧化性及生物活性成分之影響

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摘 要

本研究以台?9號(TJ9)及台中秈10號(TCI10)糙米作為材料，以浸漬時間24, 48和72小時、溫度26和36 ℃、照光與否及空氣流通與否等條件催芽，探討所得發芽米之抗氧化性與生物活性成分含量。結果顯示，TJ9和TCI10在浸漬24小時後含水量，皆以36 ℃無照光、無空氣流通條件所得者為最高，分別為33.04和32.91%。DPPH自由基清除活性以TCI10-36℃-72h有照光、無空氣流通所得者為最佳(84.67%)，未催芽之糙米為48.06%。還原能力之吸光值以TJ9-26℃-24h有照光、無空氣流通條件所得者為最高(1.06)，未催芽之糙米為0.92。Trolox當量抗氧化能力以TJ9-36℃-72h無照光、有空氣流通條件所得者為最高(4.81 mM)，未催芽之糙米為1.23 mM。TJ9及TCI10在GABA含量以浸置36℃-72h無照光、無空氣流通條件所得者為最佳(分別為42.91及44.11 mg/100g)、未催芽之糙米為0.19及0.85 mg/100g。米糠醇(Cycloartenyl ferulate, 24-Methylene cycloartanylferulate, Campesteryl ferulate, Sitosteryl ferulate)以TJ9-36℃-72h無照光、無空氣流通條件所得者為最高(分別為174.32、156.92、346.40及761.87 mg/100g)，未催芽之糙米分別為158.12、146.14、313.15及749.56 mg/100g。Tocopherol以TJ9-36℃-72h無照光、無空氣流通條件所得者為最高(1.19 mg/100g)、未催芽之糙米為0.28 mg/100g。Tocotrienol以TJ9-36℃-72h無照光、無空氣流通條件所得者為最高(0.73 mg/100g)、未催芽之糙米為0.42 mg/100g。

關鍵詞 : 發芽米、發芽條件、抗氧化、生物活性成分

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