

International Multidimensional Authenticity Specification (IMAS) Algorithm for Detection of Commercial Pomegranate Juice Adulteration, by Yanjun Zhang, Dana Krueger, Robert Durst, Rupo Lee, David Wang, Navindra Seeram, and David Heber*. *J. Agric. Food Chem.* **2009**, *57*, 2550.

Table 4 of the original publication contained errors in mathematical symbols. The corrected table appears below.

Table 4. International Multidimensional Authenticity Algorithm Specifications (IMAS) for Commercial Pomegranate Juice

attribute (method)	IMAS criterion
pomegranate polyphenols	characteristic anthocyanin profile present
anthocyanins (HPLC)	no atypical anthocyanins
four major peaks	
delphinidin-3,5-diglucoside	
delphinidin-3-glucoside	
cyanidin-3,5-diglucoside	
cyanidin-3-glucoside	
two minor peaks	
pelargonidin-3,5-diglucoside	
pelargonidin-3-glucoside	
ellagitannins (HPLC)	
punicalagin (marker for ellagitannins)	present
sugar profile	
glucose/fructose ratio (HPLC)	0.8–1.0
carbon SIRA ($^{13}\text{C}/^{12}\text{C}$ isotope ratio)	$\leq -25\text{‰}$
mannitol (HPLC-RI)	$\geq 0.3 \text{ g}/100 \text{ mL}$
sucrose (HPLC-RI)	not detectable
sorbitol (HPLC-RI)	$\leq 0.03 \text{ g}/100 \text{ mL}$
maltose (HPLC-RI)	not detectable
$^{\circ}\text{Brix}$ (refractometer)	U.S. = 16^a (international standards vary)
organic and amino acids	
citric/isocitric ratio (HPLC)	≤ 350
tartaric acid (HPLC)	not detectable
malic acid (HPLC)	$\leq 0.1 \text{ g}/100 \text{ mL}^b$
malic acid, D-isomer (HPLC)	not detectable
proline (HPLC)	$\leq 25 \text{ mg/L}^c$
mineral	
potassium (flame photometer)	$\geq 1800 \text{ mg/L}^d$

^a If made from concentrate and without any added flavors or other ingredients. The presence of added flavors or other gradients requires >16 ; for fresh squeezed juice, <16 is allowed. ^b Chinese varieties may have malic acid up to $0.2 \text{ g}/100 \text{ mL}$. ^c Specifications according to AIJN (2008) and Fischer-Zorn, Krueger (2008), and Ara (2007). ^d Lower potassium-containing pomegranate varieties are known, but potassium $<1300 \text{ mg/L}$ is not found in commercial juices. Low potassium should be used to classify a juice as nonauthentic only when combined with other atypical criteria (AIJN, 2008).

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