



Bruker SGF Profiling

Specification Sheet

Analysis	Apple	Orange	Lemon	Pineapple	Sour Cherry	Blood Orange	Mandarin	Raspberry	Grapefruit	Pear	Grape	Black Currant	Passion Fruit	Mango	Peach / Apricot	Pomegranate	Banana	Strawberry	
Quantification																			
D-galacturonic acid	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓		✓	
D-gluconic acid											✓								
HMF	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
acetaldehyde	✓	✓				✓	✓		✓	✓									
acetoine	✓			✓						✓			✓						
alanine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
arbutin	✓									✓									
benzaldehyde	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				
benzoic acid	✓	✓	✓	✓		✓	✓		✓	✓		✓		✓	✓	✓			
chlorogenic acid	✓									✓									
citramalic acid	✓																		
citric acid	✓	✓	✓			✓	✓	✓	✓	✓		✓	✓	✓		✓		✓	
ethanol	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
formic acid	✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
fructose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
fumaric acid	✓				✓														
glucose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
isocitric acid			✓																
lactic acid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
malic acid	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓		✓	✓		✓	
methanol	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				
phlorin		✓	✓			✓	✓		✓										
proline		✓				✓	✓		✓										
pyruvic acid	✓									✓									
quinic acid	✓									✓									
shikimic acid														✓					
sorbic acid	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓				
succinic acid	✓	✓	✓			✓	✓	✓	✓	✓	✓			✓	✓			✓	
sucrose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Calculated Values																			
Glucose/Fructose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
% Sucrose	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Total Sugar	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Malic/Quinic Ratio	✓																		
Verification																			
Untargeted Analysis	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Fruit Content	✓	✓		✓	✓			✓											
Classification																			
Origin	✓ ³	✓ ⁴	✓ ⁵	✓ ⁶	✓ ⁷														
Product Type ¹	✓	✓	✓	✓															
Orange Variety ²		✓				✓	✓												
Regression Values																			
Titrateable Acids	✓	✓																	
Potassium	✓	✓																	
Magnesium	✓	✓																	

¹ Model discriminates between direct juice and juice from concentrate.

² Model discriminates between orange, mandarin and blood-orange.

³ Available origins: China, Poland/Germany, Turkey, Brazil, Spain/Italy and Hungary.

⁴ Available origins: Spain, Greece, Brazil, Belize/Costa Rica/Mexico, Cuba, USA and Argentina/Uruguay/Paraguay.

⁵ Available origins: Argentina and Spain/Italy.

⁶ Available origins: Asia, Middle America and Brazil.

⁷ Available origins: Turkey and Poland.

Further aspects and fruit types can be investigated upon individual agreement. Contact: bas@bruker-biospin.de