Supplementary material S2 - Part A: Trace metals (Part A: Cd, Hg, Pb, As, Cr, Al). Analytical methods, detection limits, accuracy and precision.

Element	LOD/LOQ* (mg kg^{-1})	Digestion method	Instrument	Precision %	Accuracy Recovery %	Reference
Cd	0.13*	HF,HCl,HNO3 (2:1:1),CMS	ZAAS	4	107-120	Acquavita et al., 2010;
	0.02	HF,HCl, HNO_3,CMS	GFAAS	2.5	95.4-100	Angelidis&Aloupi, 1995; Aloupi&Angelidis, 2001; Angelidis et al. ,2011
		HNO3, HClO4,HF (3:2:1), open system		9.5	95.5	Khaled et al., 2021
		HCl,HF,$HClO_4$,HNO_3, CMS	GFAAS			Kucuksezgin et al., 2006
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HNO_3,$HClO_4$,HF(3:2:1)	FAAS	<10	90-104	Soliman et al., 2015
Hg	0.4*	HF,HCl,HNO_3 (2:1:1),CMS	CVAAS	5	90	Acquavita et al., 2010;
		Thermal decomposition	DMA	<5	<10	Azoury et al., 2013
		Thermal decomposition	DMA	0.8	100	Buccolieri et al., 2006
		HNO_3,$HClO_4$,HF	CVAAS		<10	Dolenec et al., 1998
	0.003	Thermal decomposition	DMA		<1.7	Droghini et al., 2019
	6	HCl,HNO_3,$HClO_4$,HF,CMS	CVASS	8	99.2	Giani et al., 1994;
		HCl,HF,$HClO_4$,HNO_3, CMS	CVAAS			Kucuksezgin et al., 2006
		HCl,HNO_3(3:1)	CVAAS	5	<10	Ilijanic et al., 2014
	0.50*	HF,HCl,HNO_3, Teflon bomb	gold trap, CVASS	3-5		Ogrinc et al., 2007
Pb	2	HCl, HNO_3,HF,CMS	GFAAS	2.2	97.4-100.9	Angelidis&Aloupi, 1995; Aloupi&Angelidis, 2001; Angelidis et al. ,2011
	0.5*	HF,HCl,HNO3 (2:1:1),CMS	ZAAS	4	99-109	Acquavita et al., 2010;
		HCl,HNO_3,HF, teflon bomb	ICP-MS	<5	96.7-103.3	Azoury et al., 2013
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	7.1	101	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS			Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$	FAAS	9	0.1-5	Ergin et al., 1996
	40	HCl,HNO3,$HClO_4$,HF,CMS	GFAAS	7	97.1	Giani et al., 1994;
		Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
		HNO3, HClO4,HF (3:2:1), open system		1.1	101.5	Khaled et al., 2021
		HCl,HF,$HClO_4$,HNO_3, CMS	GFAAS			Kucuksezgin et al., 2006
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HCl,HNO_3,HF (3:1:1),CMS	GFAAS	<10	85	Lopes-Rocha et al., 2017a,b
		HNO_3,$HClO_4$,HF(3:2:1)	FAAS	<10	90-104	Soliman et al., 2015
As	0.25*	HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	4	95-97	Acquavita et al., 2010;
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	6	<10	Ilijanic et al., 2014
		H2O2,HNO3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
Cr	0.5*	HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	4	90-97	Acquavita et al., 2010;
	2.5	HCl, HNO_3,HF,CMS	GFAAS	1.5	93.1-109.7	Angelidis&Aloupi, 1995; Aloupi & Angelidis, 2001
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	4.3	100	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS	4		Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$; or HF,HNO_3 hot plate	FAAS	2.5	0.1-5	Ergin et al., 1996; Ergin et al., 1993
	4	HCl,HNO_3,$HClO_4$,HF,CMS	GFAAS		95.9	Giani et al., 1994;
		HNO3, HClO4,HF (3:2:1), open system		1.4	100.2	Khaled et al., 2021
		HCl,HF,$HClO_4$,HNO_3, CMS	FAAS			Kucuksezgin et al., 2006
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HCl,HNO_3,HF (3:1:1),CMS	GFAAS	<10	105	Lopes-Rocha et al., 2017a,b
		H_2O_2,HNO_3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
		HNO_3,$HClO_4$,HF(3:2:1)	FAAS	<10	90-104	Soliman et al., 2015
Al		HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	2	97-102	Acquavita et al., 2010;
		pellets with Li2B4O7	XRF			Angelidis&Aloupi, 1995; Aloupi & Angelidis, 2001
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	0.6	95	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS			Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		Not analyzed	Not analyzed	Not analyzed	Not analyzed	Ergin et al., 1996; Ergin et al., 1993
		Not analyzed	Not analyzed	Not analyzed	Not analyzed	Giani et al., 1994;
		Not analyzed	Not analyzed	Not analyzed	Not analyzed	Khaled et al., 2021
		Not analyzed	Not analyzed	Not analyzed	Not analyzed	Kucuksezgin et al., 2006
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HCl,HNO_3,HF (3:1:1),CMS	ICP-AES	<10		Lopes-Rocha et al., 2017a,b
		H_2O_2,HNO_3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
		Not analyzed	Not analyzed	Not analyzed	Not analyzed	Soliman et al., 2015

Supplementary material S2 - Part B: Trace metals (Cu, Ni, Zn,Co, V) . Analytical methods, detection limits, accuracy and precision. Recovery range or accuracy %.

Element	LOD/LOQ* (mg kg^{-1})	Digestion method	Instrument	Precision %	Accuracy Recovery %	Reference
Cu	0.5*	HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	4	100-101	Acquavita et al., 2010;
	5	HF,HCl, HNO3,CMS	FAAS	1.9	96.5-106.1	Angelidis&Aloupi, 1995;Aloupi&Angelidis, 2001; Angelidis et al. ,2011
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	3.6	98	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS			Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$; or HF,HNO_3 hot plate	FAAS	4	0.1-5	Ergin et al, 1996; Ergin et al., 1993
	4(LDM)	Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
		HNO_3,$HClO_4$,HF (3:2:1), open system	FAAS	2.1	97	Khaled et al., 2021
		HCl,HF,$HClO_4$,HNO_3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HCl,HNO_3,HF (3:1:1),CMS	GFAAS	<10	100	Lopes-Rocha et al., 2017a,b
		H2O2,HNO3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
		HNO_3,$HClO_4$,HF(3:2:1)	FAAS	<10	90-104	Soliman et al., 2015
Ni	2*	HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	4	99-103	Acquavita et al., 2010;
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	7	92	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS			Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$; or HF,HNO_3 hot plate	FAAS	3	0.1-5	Ergin et al, 1996; Ergin et al., 1993
	2(LDM)	Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
		HNO_3,$HClO_4$,HF (3:2:1), open system	FAAS	1.2	95.2	Khaled et al., 2021
		HCl,HF,HClO4,HNO3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
		HCl,HNO_3,HF (3:1:1),CMS	GFAAS	<10	100	Lopes-Rocha et al., 2017a,b
Zn	12.5*	HF,HCl,HNO_3 (2:1:1),CMS	ZAAS	2	102-104	Acquavita et al., 2010;
	2	HF,HCl, HNO_3,CMS	FAAS	1.5	95.4-100.7	Angelidi&Aloupi, 1995; Aloupi&Angelidis, 2001; Angelidis et al. ,2011;
		powder pellets with H_3BO_3	XRF			Barra et al., 2020
		HCl, HNO_3,HF,CMS	ICP-AES	0.6	88	Buccolieri et al., 2006
		HCl, HNO_3,HF	GFAAS			Covelli&Fontolan, 1997
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$; or HF,HNO_3 hot plate	FAAS	1	0.1-5	Ergin et al, 1996; Ergin et al., 1993
		HCl,HF,$HClO_4$,HNO_3, hot plate	ICP-MS	5	<10	Ilijanic et al., 2014
	12(LDM)	Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
		HNO_3,$HClO_4$,HF (3:2:1), open system	FAAS	1.4	98.4	Khaled et al., 2021
		HCl,HNO_3,HF (3:1:1),CMS	GFAAS	<10	91	Lopes-Rocha et al., 2017a,b
			XRF	<5	<5%(95-105)	Lucchini et al., 2003
		H_2O_2,HNO_3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
		HNO_3,$HClO_4$,HF(3:2:1)	FAAS	<10	90-104	Soliman et al., 2015
Co		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
		HF,HNO_3,$HCLO_4$; or HF,HNO_3 hot plate	FAAS	14	<15	Ergin et al, 1996; Ergin et al., 1993
	2(LDM)	Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
		H2O2,HNO3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013
			XRF	<5	<5	Lucchini et al., 2003
		HNO_3,$HClO_4$,HF(3:2:1)	AAS	<10	90-104	Soliman et al., 2015
V	2.5*	HF,HCl,HNO3 (2:1:1),CMS	ZAAS	4	89-99	Acquavita et al., 2010;
		HNO_3,$HClO_4$,HF	ICP-AES		<10	Dolenec et al., 1998
	3(LDM)	Li borate-$LiNO_3$ fusion	XRF	<5	<0.5	Karageorgis et al., 2005a,b
			XRF	<5	<5	Lucchini et al., 2003
		H2O2,HNO3,HCl,HF (2:8:3:1,5), CMS	ICP-AES	<7	85-103	Olivieri et al., 2013