

Geological Magazine - Bröcker M (2023) The jadeitites from Syros and Tinos, Cycladic Blueschist Unit, Greece: field observations, mineralogical, geochemical and geochronological characteristics

Supplementary Material:

Table S1. Compilation of previous U-Pb zircon data of mélange blocks and matrix from Syros and Tinos.

Location	Rock type	Method	$^{206}\text{Pb}/^{238}\text{U}$ age	intercept age	MDA	Source
Syros	eclogite	ionprobe	88.8 ± 4.1 , 74.8 ± 1.2	c. 75 Ma		Keay (1998)
Syros	omphacitite	TIMS multigrain	78 ± 1 Ma			Bröcker & Enders (1999)
Syros	blueschist	ionprobe	83 ± 10			Cheney et al. (2000)
Syros	blueschist	ionprobe	81 ± 2 to 54 ± 4			Cheney et al. (2000)
Syros	meta-gabbro	ionprobe		80.2 ± 1.6 Ma		Tomaschek et al. (2003)
Syros	meta-plagiogranite	ionprobe		76.4 ± 2.1 Ma		Tomaschek et al. (2003)
Syros	felsic gneiss	ionprobe	245.3 ± 4.9 Ma			Bröcker & Keasling (2006)
Syros	felsic gneiss	ionprobe	240.1 ± 4.1 Ma			Bröcker & Keasling (2006)
Syros	meta-plagiogranite	ionprobe	76.6 ± 1.3 Ma			Bröcker & Keasling (2006)
Syros	jadeitite	ionprobe	79.8 ± 0.7 Ma			Bröcker & Keasling (2006)
Syros	omphacitite	ionprobe	79.8 ± 0.5 Ma			Bröcker & Keasling (2006)
Syros	glaucophanite	ionprobe	79.6 ± 0.5 Ma			Bröcker & Keasling (2006)
Syros	chl-act-rock	ionprobe	79.4 ± 0.4 Ma			Bröcker & Keasling (2006)
Syros	chlorite schist	ionprobe	79.6 ± 1.2 Ma	79.7 ± 1.2 Ma		Bulle et al. (2010)
Syros	chlorite schist	ionprobe	79.9 ± 1.4 Ma	80.1 ± 1.4 Ma		Bulle et al. (2010)
Tinos	jadeitite*	TIMS multigrain	c. 61-63 Ma			Bröcker & Enders (1999)
Tinos	eclogite	ionprobe	78.0 ± 1.8 Ma	78.2 ± 1.4 Ma		Bulle et al. (2010)
Tinos	meta-gabbro	ionprobe	77.3 ± 1.4 Ma	77.4 ± 1.4 Ma		Bulle et al. (2010)
Tinos	glaucophanite	ionprobe	80.8 ± 2.7 Ma	81.8 ± 2.7 Ma		Bulle et al. (2010)
Tinos	blackwall	ionprobe	79.5 ± 2.9 Ma	77.5 ± 3.2 Ma		Bulle et al. (2010)
Tinos	chlorite schist	ionprobe	76.8 ± 2.4 Ma	77.0 ± 2.4 Ma		Bulle et al. (2010)
Syros	qtz-mica schist	ionprobe			c. 76-84 Ma	Keay (1998)
Syros	qtz-mica schist	LA-ICP-MS			c. 70-95 Ma	Löwen et al. (2015)
Syros	qtz-mica schist	LA-ICP-MS			75 ± 5 Ma	Seman (2016)
Tinos	qtz-mica schist	ionprobe			c. 79 Ma	Bulle et al. (2010)
Tinos	qtz-mica schist	LA-ICP-MS			c. 70-80 Ma	Hinsken et al. (2016)

*In the present study described as garnet-jadeite granofels.

References:

- Bröcker M and Enders M (1999) U-Pb zircon geochronology of unusual eclogite-facies rocks from Syros and Tinos (Cyclades, Greece). *Geological Magazine* **136**, 111–18.
- Bröcker M and Keasling A (2006) Ion probe U-Pb zircon ages from the high-pressure/ low-temperature mélange of Syros, Greece: age diversity and the importance of pre-Eocene subduction. *Journal of Metamorphic Geology* **24**, 615–31.
- Bulle F, Bröcker M, Gärtnner C and Keasling A (2010) Geochemistry and geochronology of HP mélanges from Tinos and Andros, Cycladic blueschist belt, Greece. *Lithos* **117**, 61–81.
- Cheney J, Schumacher J, Coath CD et al. (2000) Ion microprobe ages of zircons from blueschists, Syros, Greece. Geological Society Annual Meeting 2000, Denver, A-152.
- Hinsken T, Bröcker M, Berndt J and Gärtnner C (2016) Maximum sedimentation ages and provenance of metasedimentary rocks from Tinos Island, Cycladic blueschist belt, Greece. *International Journal of Earth Sciences* **105**, 1923-40.
- Keay S (1998) The Geological Evolution of the Cyclades, Greece: Constraints from SHRIMP U-Pb Geochronology. PhD thesis, Australian National University, Canberra. Published thesis. doi: 10.25911/5d66671ad2b2f
- Löwen K, Bröcker M and Berndt J (2015) Depositional ages of clastic metasediments from Samos and Syros, Greece: results of a detrital zircon study. *International Journal of Earth Sciences* **104**, 205–20.
- Seman, S (2016) The tectonostratigraphy of the Cycladic Blueschist Unit and new garnet geo/thermochronology techniques. PhD thesis, The University of Texas, Austin. Published thesis. doi:10.15781/T20K26H0W
- Tomaschek F, Kennedy AK, Villa IM, Lagos M, Ballhaus C (2003) Zircons from Syros, Cyclades, Greece. Recrystallization and mobilization of zircon during high-pressure metamorphism. *Journal of Petrology* **44**, 1977–2002.