

**Authigenic Mineral Textures in Submarine 1979 Basalt Drill Core,  
Surtsey Volcano, Iceland**

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Much of the data for this article comes from Advanced Light Source Beamline 12.3.2

(<https://als.lbl.gov/beamlines/12-3-2/>)

Resources to analyze X-ray microdiffraction data with XMAS software can be found at:

<https://sites.google.com/a/lbl.gov/bl12-3-2/user-resources>

Fig. 1 Data previously published [Jakobsson & Moore, 1986; Marteinson et al., 2015]

Fig. 2 Sketch, no data presented

Fig. 3

79S 151.7m maps, ALS 12.3.2, November 2018, mxrf, mxrd

Fig. 4

79S 137.9m maps, ALS 12.3.2, March 2016, Palag1 Map1, mxrf, mxrd

Fig. 5

b. 79S 137.9m, ALS 12.3.2, July 2016, Lapillus1, mxrf, mxrd

c. S/TEM EDS 137.9m

Fig. 6 Raman spectra

Fig. 7 Images of fractured lapilli

Figs. 8, 9, S2, S3

79S 137.9m maps, ALS 12.3.2, July 2016, OL2, mxrf, mxrd

Fig. 10, 11, S5

79S 102.6m maps, ALS 12.3.2, April 2016, Palag Rim, mxrf, mxrd

Fig. 12

S/TEM EDS 102.6m

Fig. 13

a, b. 79S 102.6m maps, ALS 12.3.2, April 2016, Palag Tub, mxrf, mxrd

c, d. 79S 102.6m, ALS 8.3.2, May 2017, OL Rim, mCT