

EART 290D Petrology and Plate Tectonics Winter 2008

Jan 9: Arc crustal structure

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Jan 17 [Thurs]: Implications of crustal structure for crustal genesis

Tatsumi et al. (in press) Structure and growth of the IBM crust... JGR

Behn and Keleman (2006) Stability of arc lower crust. JGR 111 B11207

Jan 23: Subduction Initiation

Stern (2004) Subduction initiation... EPSL 226, 275.

Ishizuka et al. (2006) Earliest volcanism in IBM... EPSL 250, 385.

Whittaker et al (2007) Australian-Antarctic plate reorganization... Science 318, 83

Jan 30: Mantle wedge structure and kinematics:

Hasegawa and Nakajima (2004) Geophysical constraints on slab subduction and arc magmatism. AGU Mon. 150, 81.

Nakajima et al. (2005) NEJ... implications for melt migration. EPSL 234, 59.

Conder and Wiens (2006) Seismic structure Tonga-Lau... G3 v7#3 Q03018

Tamura (2002) Hot fingers... EPSL 197, 105.

Honda and Yoshida (2005) Small-scale convection... NEJ. G3 v6#1 Q01002

Feb 6: Eclogite melting and dehydration

Hacker et al. (2003) Subduction zone factory 2... JGR 108 B2030.

Herman

Spandler

Schmidt

Feb 13: Mantle wedge melting

Kimura (in press) Arc Basalt Simulator. G3

Grove et al. (2006) Water on mantle wedge melting. EPSL 249, 74.

McDade et al (2003) Trace element partitioning... 1.5 GPa. PEPI 139, 129.

Feb 20: Backarc basalt genesis revisited

Kelley et al. (2006) Mantle melting... BAB. JGR 111 B09208.

Langmuir et al. (2007) Chemical characteristics... BAB. AGU Mon. 166, 87.

Pearce and Stern (2006) Origin of BAB... AGU Mon. 166, 63.

Feb 27: Across-arc geochemical asymmetry

Portnyagin et al (2007) Kamchatka EPSL 255, 53. +TBA

Mar 5: Time scales of arc/backarc magma genesis

Turner et al. (2003) Chapter 7 in RIMG Vol. 52 U-Series Geochemistry

Saal and vanOrman 2004

Mar 12: Your reports about specific arcs or backarcs