

Subduction zone magmatism

Seminar info and schedule

For the autumn of 2017 we'll discuss subduction zone magmatism: Melting processes in the subduction zones and relations to the tectonic setting.

Seminars will take place at 14:00-15:30 in room **D501** of the Exactum. You may also want to see more information about the general format of the seminar.

A tentative schedule of readings is below.

Date	Discussion leader(s)	Topic and papers	Paper rating
8.9.2017	n/a	Organizational meeting	
14.9.21 07	Jorina	<ul style="list-style-type: none"> Marschall H R and Schumacher J C, 2012. Arc magmas sourced from mélangé diapirs in subduction zones. Nature Geoscience, 5, December 2012 	3.9
21.9.20 17	Lars	<ul style="list-style-type: none"> Zhu G et al., 2009. Three-dimensional dynamics of hydrous thermal-chemical plumes in oceanic subduction zones. Geochemistry, Geophysics, Geosystems, 10 (11) 	3.2
28.9.20 17	Pelayo	<ul style="list-style-type: none"> Abers G A, van Keken P E and Hacker B R, 2017. The cold and relatively dry nature of mantle forearcs in subduction zones, Nature Geoscience, 10, p. 333-337. 	3.8
5.10.20 17		<ul style="list-style-type: none"> Grove T L, Till C B, and Krawczynski M J, 2012. The Role of H₂O in Subduction Zone Magmatism. Annual Review of Earth and Planetary Sciences, 40, p. 413-439. 	
12.10.2 017	Dave	<ul style="list-style-type: none"> van Keken P E, Hacker B R, Syracuse E M, Abers G A, 2011. Subduction factory: 4. Depthdependent flux of H₂O from subducting slabs worldwide. Journal of Geophysical Research: Solid Earth, 116(B1). 	
19.10.2 017	Lotta	<ul style="list-style-type: none"> Acocella V, Funicello F, 2010. Kinematic setting and structural control of arc volcanism, Earth and Planetary Science Letters, 289, p. 43-53. 	
26.10.2 017		No seminar	
2.11.20 17	Lars	<ul style="list-style-type: none"> Paterson S R, Ducea M N, 2015. Arc Magmatic Tempos: Gathering the Evidence. Elements, 11, p. 91-98 	
9.11.20 17	Jorina	<ul style="list-style-type: none"> Cao W, Paterson S R, Memeti V, Mundil R, Anderson J L, Schmidt K, 2015. Tracking paleodeformation fields in the Mesozoic central Sierra Nevada arc: Implications for intra-arc cyclic deformation and arc tempos. Lithosphere, 7, p. 296-320. 	
16.11.2 017	Isabel	<ul style="list-style-type: none"> Faccenna C et al., 2010. Subduction-triggered magmatic pulses: A new class of plumes? Earth and Planetary Science Letters, 299, p. 54-68. 	
23.11.2 017	Dave	<ul style="list-style-type: none"> Ribeiro, J.M. and Lee, C.T.A., 2017. An imbalance in the deep water cycle at subduction zones: The potential importance of the fore-arc mantle. Earth and Planetary Science Letters, 479, p. 298-309. 	

Papers under consideration

Papers to consider

- Slab melting versus slab dehydration in subduction-zone magmatism - <https://dx.doi.org/10.1073/pnas.1010968108>
- Volatiles in subduction zone magmatism - <https://doi.org/10.1144/SP410.13>
- The Role of H₂O in Subduction Zone Magmatism - <https://dx.doi.org/10.1146/annurev-earth-042711-105310>