

## AGU Chapman Conference

### Detachments in Oceanic lithosphere: Deformation, Magmatism, Fluid Flow and Ecosystems

Agros, Cyprus, 8-16 May 2010

#### *Conference General Format*

<b>Saturday 8<sup>th</sup></b>	Participants' arrival: transportation from airport to hotel. Registration and welcome reception.	
	<b>Morning</b>	<b>Afternoon</b>
<b>Sunday 9<sup>th</sup></b>	Meeting goals 4 Overview Talks	Intro to field trips 2 & 3 Poster session 1
<b>Monday 10<sup>th</sup></b>	Field trip 1: General Introduction to the Troodos Ophiolite	
<b>Tuesday 11<sup>th</sup></b>	4 Overview Talks	2 Overview Talks Poster session 1
<b>Wednesday 12<sup>th</sup></b>	Field trip 2: Group A: Western Limassol Forest Group B: Eastern Limassol Forest	
<b>Thursday 13<sup>th</sup></b>	Field trip 3: Group A: Eastern Limassol Forest Group B: Western Limassol Forest	
<b>Friday 14<sup>th</sup></b>	Breakout groups + Discussion	Keynote Talks Poster session 2
<b>Saturday 15<sup>th</sup></b>	Breakout groups + Discussion Summary, and perspectives	Poster session 2
<b>Sunday 16<sup>th</sup></b>	Participants' departure: transportation from hotel to airport. Conveners and Program Committee write up Conference Report.	

**Detailed Daily Schedule**

	<b>Sunday 9<sup>th</sup></b>	<b>Tuesday 11<sup>th</sup></b>
08:30 – 09:00h	Introduction to Conference	
09:00 – 09:45h	Speaker: <b>Mathilde Cannat</b> (CNRS) <i>Oceanic detachment faults and the exhumation of gabbros and mantle-derived peridotites at mid-ocean ridge</i>	Speaker: <b>Bobbie John</b> (U. Wyoming) <i>Oceanic and continental detachment fault systems: how similar are they?</i>
09:45 – 10:30h	Speaker: <b>Michael Cheadle</b> (U. Wyoming) <i>Fault Rheology, Footwall Deformation and Geochronologic Constraints on the Process of Detachment Faulting at Mid-Ocean Ridges</i>	Speaker: <b>Gianreto Manatschal</b> (EOST-UPL) <i>The role of detachment faults during crustal thinning, mantle exhumation and continental break-up at magma-poor rifted margins?</i>
10:30 - 11:00h	Coffee Break	Coffee Break
11:00 - 11:45h	Speaker: <b>Antony Morris</b> (U. Plymouth) <i>Palaeomagnetic insights into oceanic detachment fault processes at mid-ocean ridges</i>	Speaker: <b>Andrew McCaig</b> (U. Leeds) <i>Hydrothermal systems and detachment faulting</i>
11:45 - 12:30h	Speaker: <b>Robert Sohn</b> (WHOI) <i>Geophysical constraints on the structure of detachment faults: Stone cold facts, red hot topics, and everything in-between</i>	Speaker: <b>Gretchen Früh-Green</b> (ETH) <i>Serpentinization of the oceanic lithosphere: Consequences for hydrothermal activity and biogeochemical cycles</i>
12:30 – 14:00h	Lunch Break	Lunch Break
14:00 – 14:45h	Introduction to field trips.	Speaker: <b>Debbie Kelley</b> (U. Washington) <i>Linkages among Serpentinization and Life in Ultramafic-Hosted Hydrothermal Systems: The Lost City Hydrothermal Field</i>
14:45 – 15:30h		Speaker: <b>Mirjam Perner</b> (U. Hamburg) <i>Microbial communities and metabolisms from basalt- and ultramafic-hosted vents</i>
15:30 – 16:00h		Contributed talk(s) and/or poster summaries
16:00 – 16:30h	Coffee Break	Coffee Break
16:30 – 19:30h	Poster session 1	Poster session 1
19:30	Dinner	Dinner

**Detailed Daily Schedule**

	<b>Friday 14<sup>th</sup></b>	<b>Saturday 15<sup>th</sup></b>
08:45 – 09:00h	Introduction to breakout groups	Introduction to breakout groups
09:00 – 10:00h	<p style="text-align: center;">Breakout groups:</p> <p><i>How and under which conditions does detachment-faulting lead to the formation and development of OCCs?</i></p> <p><i>What are the mechanisms and conditions that promote and sustain strain localization over long periods of time, and the development of an OCC?</i></p> <p><i>What are the similarities and differences between oceanic and continental core complexes?</i></p> <p><i>What can we learn about continental breakup and initiation of seafloor spreading from OCCs?</i></p>	<p style="text-align: center;">Breakout groups:</p> <p><i>What drives hydrothermal circulation in OCCs and detachment faults?</i></p> <p><i>What are the feedbacks between fluid circulation, deformation, and magmatic processes?</i></p> <p><i>What is the biodiversity and characteristics of ecosystems associated with OCCs, and how are they related to the style of hydrothermal circulation within OCCs and along detachment faults?</i></p>
10:00 – 10:30h	Panel discussion	Panel discussion
10:30 – 11:00h	Coffee Break	Coffee Break
11:00 – 12:00h	<p style="text-align: center;">Breakout groups:</p> <p><i>What is the lithological structure of OCCs and its variability at scales of meters to tens of kilometers?</i></p> <p><i>What is the link between deformation and magmatic emplacement?</i></p>	Open discussion, summary, and perspectives.
12:00 – 12:30h	Panel discussion	
12:30 – 14:00h	Lunch Break	Lunch Break
14:00 – 15:15h	<p>New Frontiers in OCC Research</p> <p>Speaker: <b>Peter Kelemen</b> (Columbia Univ.)</p> <p><i>Evaluating In Situ Mineral Carbonation in Near-Seafloor Peridotite for CO<sub>2</sub> Capture and Storage</i></p>	
15:15 – 16:30h	<p>New Frontiers in OCC Research</p> <p>Speaker: <b>Anna-Louise Reysenbach</b> (PSU)</p>	
16:30 – 17:00h	Coffee Break	
17:00 – 19:30h	Poster session 2	
19:30	Dinner	