

ISSI-EUROPLANET WORKSHOP: Quantifying the Martian geochemical reservoirs

MONDAY April 11, 201108:30-08:50 Registration in ISSI (Hallerstrasse 6, 1st floor)08:50-09:00 Welcome and Introduction to ISSI TBD/M. Toplis**SESSION 1: Global units (Chairperson: Sotin)**

09:00-09:45 Chondritic building blocks Mittlefehldt

09:45-10:30 Mineralogy and thermal structure of the Martian interior Fei

10:30-11:00 *Coffee Break*

11:00-11:45 Global geophysics Rivoldini

SESSION 2: The primary crust (Chairperson: Toplis)

11:45-12:30 1° crust as inferred from in-situ measurements Ruff

12:30-14:00 *Lunch*

14:00-14:45 Primary crust as inferred from the SNC meteorites Sautter

14:45-15:30 Earliest crust on Noachian Mars, as seen from orbit Mustard

15:30-16:00 *Coffee Break***SESSION 3: Solid, liquid and gaseous volatiles (Chairperson: Toplis)**16:00-16:45 The crust as seen by γ /neutron data Gasnault

16:45-17:30 The Cryosphere as seen by radar measurements Cifford

17:30 *ISSI Welcome Cocktail*

TUESDAY April 12, 2011

08:30-09:10	Present-day gases of geochemical interest	Montmessin
09:10-09:50	Morphological evidence for liquid volatiles at the surface of Mars	Mangold
09:50-10:30	Secondary alteration as seen in the SNC	Grady

10:30-11:00	<i>Coffee Break</i>
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SESSION 4:	Mineralogical evidence for volatile-crust interactions (Bell)
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11:00-11:45	Secondary mineralogy as constrained by in-situ data	Morris
11:45-12:30	Clay minerals on Noachian Mars as seen from orbit	Ehlmann

12:30-14:00	<i>Lunch</i>
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14:00-14:45	Alteration during the Hesperian as seen from orbit	Michalski
14:45-15:30	Secondary mineral formation at the Pheonix landing site	Ming (Niles)

15:30-16:00	<i>Coffee Break</i>
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16:00-16:45	Overview	McLennan
16:45-17:30	Round Table	<i>Chairman</i> Bell

WEDNESDAY April 13, 2011

SESSION 5:	Dynamics of accretion and early differentiation (Spohn)
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08:15-08:55	Accretionary dynamics	Brasser
08:55-09:35	Numerical models of early differentiation	Gerya
09:35-10:15	Core formation as constrained by the SNC meteorites	Mezger

10:15-10:45	<i>Coffee Break</i>
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10:45-11:25	Early crust formation as constrained by the SNC	Debaille
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SESSION 6:	Rheology, convection and magmatism over time (Spohn)
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11:25-12:05	Rheology and dynamics of the mantle over time	Karato
12:05-12:45	Convection and link to magmatism	Breuer

12:45	<i>Lunch</i>
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FREE AFTERNOON

1. Visit to PAUL KLEE Museum Bern
2. Visit the City of Bern, EINSTEIN HOUSE/EINSTEIN MUSEUM-EXHIBITION
3. Or any other individual choice.

19:30	WORKSHOP DINNER
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Location/Restaurant will be announced at the Workshop

THURSDAY April 14, 2011

08:15-08:55	Magmatism and the link to convection	Baratoux
08:55-09:35	Evidence for recent volcanism	Hauber
09:35-10:15	Present day constraints on thermal state	Grott

10:15-10:40	<i>Coffee Break</i>
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SESSION 7:	Inputs and outputs of the volatile cycle (Chassefière)
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10:40-11:20	Degassing - the case of H	Morschhauser
11:20-12:00	Degassing - the case of S+C	Gaillard
12:00-12:45	DISCUSSION book	

12:45-14:00	<i>Lunch</i>
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14:00-14:40	Gas clathrates and the storage of volatile species	Mouis
14:40-15:20	Addition of volatiles by meteorites	Dehant
15:20-16:00	Atmospheric escape	Lammer

16:00-16:25	<i>Coffee Break</i>
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16:25-17:05	Cycles of the cryo-hydrosphere	Lasue
17:05-17:45	Cycles of the hydro-atmosphere	Forget

FRIDAY April 15, 2011

SESSION 8:	Constraints on climates and climate change (Sotin)
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08:15-08:55	CO ₂ and the evolution of the martian climate with time	Niles
08:55-09:35	SNC and Implications for the atmosphere	Catling
09:35-10:15	Experimental studies of alteration	Chevrier

10:15-10:40	<i>Coffee Break</i>
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10:40-11:25	Modelling kinetics of alteration	Berger
11:25-12:05	What mineralogy tells about climate change	Bibring
12:05-13:00	DISCUSSION book	

END OF WORKSHOP

13:00-14:00	<i>Lunch</i>
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