**Telluride Workshop: Iron Biogeochemistry 2012**

**Chair: Thomas Borch (CSU); co-Chair: Kevin Rosso (PNNL)**

**Location**: Telluride Intermediate School  
725 West Colorado

Telluride CO 81435

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| **Tuesday, August 07** |  | **Theme 1: Iron cycling and reactivity** |
| *12:00 -1:00* | *Group Lunch* | *TSRC Catered Lunch at Meeting site, participants only* |
| 1:00-1:15 | *Introductory remarks* |  |
| 1. 1:15-2:00 | 1: Thomas Borch | Iron reduction, precipitation and transformation: Effect of co-precipitated organic matter on Fe reactivity and structure |
| 2. 2:15-3:00 | 2: Andreas Kappler | Role of nitrite for nitrate-dependent Fe(II) oxidation and impact of humics and ferrihydrite aggregation on Fe(III) reduction |
| *Coffee break* |  |  |
| 3. 3.30-4.15 | 3. Satish Myneni | Chemistry of Colloidal Fe in Oceans & Lakes: Structure, Stability, and Influence on Productivity |
| 4. 4.30-5.15 | 4. Richard Collins | Combining thermodynamics and quick scanning EXAFS spectroscopy to examine ferric iron hydrolysis and precipitation |
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| **Wednesday, August 08** |  | **Theme 2: Microbe-mineral interactions and extreme environments** |
| *Morning Free* |  |  |
| 5. 12:30-1:15 | 1: Alexis Templeton | Geomicrobiology of iron in extreme environments: bacteria-mineral-metal ion interactions |
| 6. 1:30-2:15 | 2: Bill Burgos | Iron biogeochemistry in acid mine drainage-impacted systems |
| *Coffee break* |  |  |
| 7. 3:00-3:45 | 3: James Byrne | Biogenic Magnetite Nanoparticles: Development and Optimization for Potential Applications |
| 8. 4:00-4:45 | 4: Clara Chan | Aerobic neutrophilic Fe-oxidizing microbes |
| 9. 5:00-5:45 | 5: Anke Neumann | Fe(II) driven Fe clay mineral reorganization |
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| **Thursday, August 09** |  | **Theme 3: Electron transfer and iron oxide dynamics** |
| *7:30-8:15* | *TSRC Breakfast* | *TSRC Catered Breakfast at Meeting site, participants only* |
| 10. 8:15-9:00 | 1: Marc Michel | The structure and chemistry of ferrihydrite |
| 11. 9:15-10:00 | 2: Paul Tratnyek | Electrochemical perspective on Fe redox chemistry |
| *Coffee break* |  |  |
| 12. 10:45-11:30 | 3: Chris Gorski | Dynamics of electron transfer to and from Fe-bearing minerals: Electrochemical characterization of redox properties |
| *11:45-12:45* | *TRSC Lunch* | *TRSC Catered Lunch at Meeting site, participants only* |
| 13. 1:00-1:45 | 4: Michelle Scherer | Fe(II)-catalyzed electron and atom exchange in iron oxides |
| 14. 2:00-2:45 | 5. Kevin Rosso | Iron redox transformation by Fe(II): the bulk conduction mechanism |
| 15. 3:00-3:45 | 6. Brian Phillips | Rust in the magnet:  recent advances in NMR spectroscopy of ion binding on Fe-oxyhydroxides |
| 16. 4.00-4.45 | 7. Vitaly Alexandrov | Computational Modeling of Fe-bearing Redox-Active Mineral Systems |
| *Afternoon Free* |  |  |
| *6:00 - dark* | *TSRC Picnic* | *TSRC picnic, family and friends welcome free of charge* |
| **Friday, August 10** |  | **Theme 4: Iron induced contaminant reduction** |
| *7:30-8:30* | *TSRC Breakfast* | *TSRC Catered Breakfast at Meeting site, participants only* |
| 17. 8:30-9:15 | 1: Knud Dideriksen | Reduction of chromium and selenium by green rust |
| 18. 9:30-10:15 | 2: Carolyn Pearce | Fe(II) in Ti-doped ferrite spinels and contaminant reduction |
| *Coffee break* |  |  |
| 19. 11:00-11:45 | 3: Scott Fendorf | Iron reduction under diffusion limited conditions: Implications for contaminant fate and transport |
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| *BEER DOWNTOWN* |  |  |
|  |  | Conference Adjourns |

List of Confirmed Participants:

Participants and Email List:

1. Alexis Templeton (USA; [alexis.templeton@colorado.edu](mailto:alexis.templeton@colorado.edu))
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