PCAS WG Minutes

Prague, Czech Republic, September 2, 2018

Present: Masaru Nakahara James Bellows (clerk of minutes) Ken Yoshida Peter Tremaine Hugues Arcis Andre Anderko (chair)

nakahara@scl.kyoto-u.ac.jp jcbellows2@aol.com yoshida.ken@tokushima-u.ac.jp tremaine@uoguelph.ca harcis@uoguelph.ca aanderko@olisystems.com

Agenda approved Clerk of Minutes: James Bellows Minutes of 2017 were approved.

Dr. Yoshida gave a talk about the progress in the development of a guideline on self-diffusion coefficients of water. He explained that collection and evaluation of the experimental data have been almost completed and the fitting of the zero-density part of the data is successfully done by the correlation function planned to be employed. It was proposed to include Marcia Huber (NIST) as an outside expert for the Task Group who will work on the development of the correlation function and to appoint Evaluation Task Group, to start its work when Task Group prepares a draft Guideline, with a goal of 2019 approval. The attendees adopted this proposal unanimously.

Peter Tremaine described the Research Chair in High Temperature Aqueous Chemistry at the University of Guelph. The chair is funded by the nuclear industry. All research is to be published. Some of the topics of research are heavy water coolant chemistry, CANDU secondary chemistry and storing spent fuel.

Andre Anderko gave a presentation titled "Silicate chemistry in water treatment." This presentation outlined thermodynamic research at OLI Systems to develop of comprehensive solution chemistry and solid-liquid equilibrium model for various calcium, magnesium, zinc, and aluminum silicates, which may precipitate over various time scales.

James Bellows will attempt to have density-based plots by February for ETA as a start on the Amine Guideline Project.

Attendance was discussed and more emphasis on joint meetings with PCC and TPWS. A quorum should be defined (perhaps 10 people or 6 six organizations). If quorum is not achieved, it has been proposed that the meeting would consist of an approximately 2-hour business meeting.

Summary of guidelines under development:

- Self-diffusion of water (Ken Yoshida; in an advanced stage of preparation)
- Volatility and dissociation constants of amines and amine decomposition products (James Bellows; work has been initiated)