

**Preliminary Agenda for the IAPWS Working Group
Thermophysical Properties of Water and Steam (TPWS)
Banff, Canada, Sept. 30 – Oct. 3, 2019**

1. Opening Remarks; Adoption of Agenda
2. Appointment of Clerk of Minutes
3. Potential International Collaborative Projects [Monday]
4. Industrial Requirements and Solutions for Steam Property Calculations, joint with WG IRS
 - 4.1 Report of the Task Group “Categories of industrial requirements” (N. Okita, A. Nový, I. Weber, R. Span, A. Anderko, M. Rziha)
 - 4.2 Report of the Task Group “Wet steam properties calculation” (A. Nový, J. Hrubý, K. Orlov, R. Span, K. Meier)
 - 4.3 Report of the Task Group “Wet Steam Data from Operating Turbines” (N. Okita, A. Nový, I. Weber, S. Senoo)
5. Heavy Water Properties (joint with WG IRS)
 - 5.1 Density of heavy water at low temperatures - validation of IAPWS standard against Prague experimental data (A. Blahut, J. Hykl, P. Peukert, V. Vinš, J. Hrubý)
 - 5.2 Report of TG for Heavy Water Transport Properties (J. Sengers, M. Assael, M. Huber, R. Perkins)
6. Possible Replacement of IAPWS-95
 - 6.1 Report of Task Group (A. Harvey, D. Friend, J. Hrubý, N. Okita, K. Orlov, R. Span)
 - 6.2 A brief review of density and speed of sound data at high temperatures and pressures (J. Hrubý)
 - 6.3 Discussion of proposed ICRN
7. Report of Task Group on Surface Tension of Ordinary Water (joint with WG IRS and SC SW) (J. Kalová, V. Vinš, A. Harvey, O. Hellmuth, V. Holten, J. Hrubý, R. Mareš, F. Caupin)
8. Metastable Water (joint with SC SW)
 - 8.1 Report on the vapor pressure of supercooled water (V. Holten, A. Harvey)
 - 8.2 Report of Task Group on possible revision of IAPWS formulations for melting curves (V. Holten, A. Harvey, H.-J. Kretzschmar)
9. Report of Task Group on Extension of Range of Formulation for Thermodynamic Properties of Sea Water (joint with WG IRS and SC SW) (R. Feistel)
10. Cooperation with other international bodies (joint with SC SW)
 - 10.1 IAPWS/IAPSO/SCOR Joint Committee on Seawater, including updates to TEOS-10 (R. Pawlowicz)
 - 10.2 Definition and possible measurement of “relative fugacity” (R. Feistel)

11. Reports on seawater-related topics (joint with SCSW)
 - 11.1 Proposed Guideline on Surface Tension of seawater (K. Nayar, A. Harvey)
 - 11.2 Evaluation Report on proposed Guideline (R. Feistel, M. Duska)
 - 11.3 Formal Working Group consideration of the Guideline
 - 11.4 Density measurements of IAPSO standard seawater by single sinker hydrostatic weighing at atmospheric pressure (A. Giuliano Albo, S. Lago)
 - 11.5 Density of seawater at low temperatures (including supercooled seawater) and high pressures (A. Blahut, J. Hykl, P. Peukert, V. Vinš, J. Hrubý)
 - 11.6 Viscosity of seawater (K.G. Nayar)[more to be added by SCSW]
12. Proposed new IAPWS seawater-related documents (joint with SCSW)
 - 12.1 Report on Guideline for Electrical Conductivity of Seawater (R. Pawlowicz)
13. Reports on miscellaneous TPWS scientific topics (joint with WG IRS and SC SW)
 - 13.1 Anomaly in virial expansion of IAPWS-95 at low temperatures (A. Harvey)
 - 13.2 Cloud service for IAPWS formulations (K. Orlov, V. Ochkov)
14. Joint session with WG PCAS [Thursday morning]
 - 14.1 Report and consideration of minor revision of Release on the Ionization Constant of H₂O (A. Harvey)
 - 14.2 Report on progress toward IAPWS Guideline on diffusivity of ordinary water (K. Yoshida, F. Caupin, A. Harvey, R. Hellmann, M. Huber)
 - 14.3 Cross second virial coefficients for industrially and scientifically important mixtures of water vapor and simple gases from *ab initio* intermolecular potentials (R. Hellmann, K. Meier)
 - 14.4 Nucleation in water vapor: Classical nucleation theory and molecular simulation (I. Němec) [joint with IRS]
15. IAPWS Certified Research Needs (ICRNs)
 - 15.1 Discussion of possible ICRN for acid gas dew points (N. Okita)
16. Reports on other TPWS activities
 - 16.1 Guideline on Fundamental Constants (A. Harvey)
 - 16.2 Advisory Note 2 (J. Cooper, A. Harvey)
17. Other Business
 - 17.1 Report on International Collaborative Projects
18. Membership
19. Election of Chair and Vice-Chair
20. Contribution to Press Release
21. Preparation of the Formal Motion to the EC
22. Adjournment

August 26, 2019

A.H. Harvey (Chair), K. Maier (Vice-Chair)