

2019 HydroGEN 2nd Annual Advanced Water Splitting Technology Pathways: Benchmarking and Protocols Workshop - Breakout Sessions

Session #	Session ID	Technology	Topic	Lead	Room ID	Bldg/Rm#
1	H1-A	HTE	HTE Technology <u>Roadmap</u> Review & Discussion - Materials, Components	Olga Marina	Discovery	Skysong 1/349
1	H1-B	HTE	HTE Technology <u>Roadmap</u> Review & Discussion - Devices, Testing	Mark Williams	Imagination	Skysong 1/249
1	L1-A	LTE	LTE Technology <u>Roadmap</u> Review & Discussion- Membrane, Catalyst	Chris Capuano	Synergy I	Skysong 3/130
1	L1-B	LTE	LTE Technology <u>Roadmap</u> Review & Discussion- Components, Stack	George Roberts	Alliance	Skysong 1/365
1	P1-A	PEC	PEC Technology <u>Roadmap</u> Review & Discussion - Materials	Roel van de Krol	Synergy II	Skysong 3/135
1	P1-B	PEC	PEC Technology <u>Roadmap</u> Review & Discussion -Components and Devices	Frances Houle	Innovation	Skysong 1/241
1	S1-A	STCH	STCH Technology <u>Roadmap</u> Review & Discussion: Materials	Andrea Ambrosini	Ingenuity	Skysong 1/301
1	S1-B	STCH	STCH Metrics -Units and Operating Boundaries (<u>Protocol</u>)	Chris Muhich	Exploration	Skysong 1/341
2	H2-A	HTE	Best Methods and Practices for Characterizing SOEC Materials	Joseph Barton	Synergy I	Skysong 3/130
2	H2-B	HTE	Best Methods and Practices for Characterizing H ⁺ -SOEC Materials	Dong Ding	Alliance	Skysong 1/365
2	L2-A	LTE	PEM Membrane: IEC, Thermal Stability, Water Uptake	Chulsung Bae	Innovation	Skysong 1/241
2	L2-B	LTE	AEM Membrane: Conductivity, Gas Permeability, Chemical Stability	Yushan Yan	Ingenuity	Skysong 1/301
2	P2-A	PEC	PEC Light absorber and Protective Layer Requirements & Tests	Nicolas Gaillard	Synergy II	Skysong 3/135
2	P2-B	PEC	PEC Catalyst and Electrolyte Requirements & Tests	Adam Weber	Imagination	Skysong 1/249
2	S2-A	STCH	STCH Technology <u>Roadmap</u> Review & Discussion Reactors and Systems	Ivan Ermanoski	Exploration	Skysong 1/341
2	S2-B	STCH	STCH Standards: beyond Ceria (<u>Protocol</u>)	Jonathan Scheffe	Discovery	Skysong 1/349
3	C3-A	Cross Cutting	Hybrid Thermochemical Cycle Material Screening- Electrochemical step	Hector Colon-Mercado	Innovation	Skysong 1/241
3	C3-B	Cross Cutting	PEC/LTE Cross-cutting: Non-PGM Catalysts	Shannon Boettcher	Discovery	Skysong 1/349
3	C3-C	Cross Cutting	PEC/LTE Cross-cutting: Membrane Requirements & Tests	Chris Topping	Imagination	Skysong 1/249
3	C3-D	Cross Cutting	Cross-Cutting Elements of Protocol Development (calibration, null measurements, etc)	Karl Gross	Ingenuity	Skysong 1/301
3	C3-E	Cross Cutting	Cross-Cutting Elements of Protocol Development	Guido Bender	Synergy II	Skysong 3/135
3	C3-F	Cross Cutting	International alignment on Benchmarks, Protocols, and Roadmaps	Ivan Ermanoski	Synergy I	Skysong 3/130
4	H4-A	HTE	Cell Performance Measurements: Standards, Calibrations, <u>Protocols</u> , Validation	Jim O'Brien	Imagination	Skysong 1/249
4	H4-B	HTE	SOEC and H ⁺ -SOEC Operating Conditions and Boundaries	Joseph Hartvigsen	Innovation	Skysong 1/241
4	L4-A	LTE	PGM Catalyst: RDE	Marcelo Carmo	Exploration	Skysong 1/341
4	L4-B	LTE	Non-PGM Catalyst: Electroconductivity	Guido Bender	Discovery	Skysong 1/349
4	P4-A	PEC	PEC Photoelectrodes: Spatially Revolved Energetics and Transports	Shannon Boettcher	Ingenuity	Skysong 1/301
4	P4-B	PEC	PEC Photoelectrodes: Stability and Accelerated Stress Tests	Tom Jaramillo	Synergy II	Skysong 3/135
4	S4-A	STCH	STCH Thermodynamics (<u>Protocol</u>)	Andrea Ambrosini	Synergy I	Skysong 3/130
4	S4-B	STCH	STCH Kinetics (<u>Protocol</u>)	Tony McDaniel	Alliance	Skysong 1/365
Day 1 Recap	H-Recap	HTE	HTE Recap from Day 1	TBD	Discovery	Skysong 1/349
Day 1 Recap	L-Recap	LTE	LTE Recap from Day 1	TBD	Global	Skysong 1/201
Day 1 Recap	P-Recap	PEC	PEC Recap from Day 1	TBD	Ingenuity	Skysong 1/301
Day 1 Recap	S-Recap	STCH	STCH Recap from Day 1	TBD	Imagination	Skysong 1/249
Day 1 Recap	C-Recap	Cross Cutting	Cross-Cutting Recap from Day 1	TBD	Innovation	Skysong 1/241
5	H5-A	HTE	Materials and Device Lifetime Testing <u>Protocols</u>	Xingbo Liu	Exploration	Skysong 1/341
5	H5-B	HTE	Terminology and Units	Neal Sullivan	Ingenuity	Skysong 1/301
5	L5-A	LTE	Porous Transport Layer (PTL): Characterization <u>Protocols</u>	Nem Danilovic	Synergy I	Skysong 3/130
5	L5-B	LTE	Gas Diffusion Layer (GDL): Characterization <u>Protocols</u>	Cortney Mittelsteadt	Global	Skysong 1/201
5	P5-A	PEC	PEC New Materials Screening, Theory and Operando Characterization	Francesca Toma	Synergy II	Skysong 3/135
5	P5-B	PEC	PEC Device Testing <u>Protocols</u> , Standard Formats and Scale-up	James Young	Discovery	Skysong 1/349
5	S5-A	STCH	STCH Durability (<u>Protocol</u>)	Ivan Ermanoski	Imagination	Skysong 1/249
5	S5-B	STCH	STCH Density Functional Theory	Tony McDaniel	Innovation	Skysong 1/241
6	H6-A	HTE	<u>Wrap-up</u> /Action Item Assignment: HTE Materials, Components	Ani Kulkarni	Discovery	Skysong 1/349
6	H6-B	HTE	<u>Wrap-up</u> /Action Item Assignment: HTE Cells, Stacks	Jamie Holladay	Synergy II	Skysong 3/135
6	L6-A	LTE	<u>Wrap-up</u> /Action Item Assignment: LTE Membrane, Catalysts	James Vickers	Imagination	Skysong 1/249
6	L6-B	LTE	<u>Wrap-up</u> /Action Item Assignment: LTE Components, Stacks	Ahmet Kusoglu	Ingenuity	Skysong 1/301
6	P6-A	PEC	<u>Wrap-up</u> /Action Item Assignment: PEC Materials	Shu Hu	Synergy I	Skysong 3/130
6	P6-B	PEC	<u>Wrap-up</u> /Action Item Assignment: PEC Components and Devices	Shane Ardo	Exploration	Skysong 1/341
6	S6-A	STCH	<u>Wrap-up</u> /Bringing it to Closure and Next Steps: STCH Active Materials	Tony McDaniel	Global	Skysong 1/201
6	S6-B	STCH	<u>Wrap-up</u> /Bringing it to Closure and Next Steps: STCH What's Missing	David Ginley	Innovation	Skysong 1/241