

July 22-25, 2008 - 3rd International Workshop on "Thin films applied to Superconducting RF and new ideas for pushing the limits of RF Superconductivity" - Jefferson Lab, VA - USA

Monday July 21

CEBAF Center Lobby

17:30	19:00	Welcome reception			

Tuesday July 22

CEBAF Center Auditorium

				min	Chairman
8:00	9:00	Registration/Continental Breakfast		60	
9:00	9:10		AMVF	10	
9:10	9:20	Welcome	A. Hutton	10	
Session Tu1 on Motivation & Applications to SRF					C. Reece
9:20	9:40	Motivation for thin films applied to SRF	L. Phillips	20	
9:40	10:10	Engineering advances for future accelerator applications	G. Neil	30	
10:10	10:40	Open Discussion on Motivation & Applications to SRF		30	
10:40	11:00	Coffee-Break		20	
Session Tu2 on Connecting Structure & Performance for SRF Surfaces					A. Gurevich
11:00	11:30	Molecular Dynamics Simulation of Thin Films Deposition	D. Bowring	30	
11:30	12:00	SCRF failure modes and surface treatment	J. Norem	30	
12:00	12:30	Investigation of the influence of trapped vortices on high-field RF losses in superconducting niobium cavities	G. Ciovati	30	
12:30	13:00	Open discussion on Connecting Structure & Performance for SRF Surfaces		30	
13:00	14:10	Lunch in ARC Auditorium		70	
Session Tu3 on SRF Thin Film Deposition: Magnetron sputtering and ALD					A-M Valente-Feliciano
14:10	14:40	Atomic Layer Deposition Overview	H. Baumgart	30	
14:40	15:10	Recent results with Atomic Layer Deposition of SCRF materials	M. Pellin	30	
15:10	15:40	Update on CVD Activities at Cornell	L. Phillips for L. Hand	30	
15:40	16:00	Coffee-Break		20	
16:00	16:30	New magnetron configurations for sputtering niobium thin films into copper tesla-type superconducting cavities	G. Lanza	30	
16:30	17:00	Effect of Interstitial Impurities on the RRR on Nb Thin	R. Outlaw	30	
17:00	17:30	Open Discussion on SRF Thin Film Deposition: Magnetron sputtering and ALD		30	

Wednesday July 23

CEBAF Center Auditorium

8:15	9:00	Continental Breakfast		45	
		Session We1 on SRF Thin Film Deposition: Energetic condensation			L. Phillips
9:00	9:30	UHV Cathodic Arc: Progress report	AMVF for R. Russo	30	
9:30	10:10	Coaxial Energetic Deposition (CEDTM) of superconducting thin films of Nb for RF cavities	M. KRISHNAN	40	
10:10	10:40	Energetic Condensation and Thin Films Project at JLAB	A-M Valente-Feliciano	30	
10:40	11:00	Coffee-Break		20	
11:00	12:10	Open discussion on SRF Thin Film Deposition: Energetic condensation		70	G. Wu
12:10	13:10	Lunch in ARC Auditorium		60	
		Session We2 on Materials other than Nb			V. Palmieri
13:10	13:40	SRF Materials other than Nb	A-M Valente-Feliciano	30	
13:40	14:10	Progress in MgB2 thin films for RF applications	X. Xi	30	
14:10	14:40	Study of MgB2 Thin Films on Cu, Ti and Nb by Pulse Laser Deposition at KEK	S. Mitsunobu	30	
14:40	15:10	Cathodic Arc Deposition of superconducting thin films of MgB2 for RF cavities	M. KRISHNAN	30	
15:10	15:40	Coffee-Break		20	
15:40	16:10	Nb3Sn and V3Si for superconducting cavity application	S. Deambrosis	30	
16:10	16:40	Emerging new TFSRF materials	A. Gurevich	30	
16:40	17:50	Open discussion on SRF Materials other than Nb		70	A. Gurevich

Thursday July 24

CEBAF Center Auditorium

8:00	8:45	Continental Breakfast		45	
		Session Th1 on Material Analyses & RF Measurements			T. Tajima
8:45	9:05	Electron Microscopy Study of Niobium Thin Films on Copper	R. Crooks	20	
9:05	9:25	Crystal Structure Study of Niobium Thin Films Deposited by Energetic Condensation via X-Ray Diffraction (XRD) and Electron Back-Scattering Diffraction	X. Zhao	20	
9:25	9:45	Topographical Analysis	H. Tian	20	
9:45	10:15	Activities at Los Alamos on RF superconductivity	T. Tajima	30	
10:15	10:35	Coffee-Break		20	
10:35	11:05	6 GHz spun seamless cavities as a easy tool for testing alternative surface treatments	A. Rossi	30	
11:05	11:25	Cavity design for quench study	M. Ge	20	
11:25	11:35	Status of JLab Surface Impedance Characterization System (SIC)	B. Xiao	10	
11:35	11:45	Surface resistance measurement based on thermal integration	G. Wu	10	
11:45	12:35	Open Discussion on RF Performance & Material Analyses		50	M. Kelley
12:35	13:35	Lunch in ARC Auditorium		60	
		Session Th2 on New Surface Preparation Strategies			C. Antoine
13:35	13:50	EIS - Introduction	C. Reece	15	
13:50	14:30	Nb Electropolishing	H. Tian	40	
14:30	15:10	Hydrofluoric acid free solution for electropolishing Niobium: status of the research	V. Palmieri	40	
15:10	15:30	Coffee-Break		20	
15:30	16:10	Atmospheric Plasmas	M. Brankin	40	
16:10	16:40	The potentiality of atmospheric plasmas applied to the cavity processing	V. Palmieri	30	
16:40	17:10	High Etching Rates of Niobium in Ar/Cl ₂ Microwave Discharge	M Raskovic	30	
17:10	17:40	Plasma cleaning: towards a high yield cavity processing	G. Wu	30	
18:00		Departure for 'Create Bistro'			
18:30		Workshop Dinner	C. Reece		

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Friday July 25

CEBAF Center Auditorium

8:00	8:45	Continental Breakfast		45	
		Session Fr1			A-M Valente-Feliciano
8:45	9:45	Energetic condensation to deposit films from metal plasmas: Basic considerations, and the use of cathodic arcs, and high power impulse magnetron sputtering	A. Anders	60	
9:45	10:15	RF for Muon Capture, Cooling, and Acceleration	R. Johnson	30	
10:15	10:35	Coffee break		20	
10:35	11:15	Round Table : What types of eventual applications for SRF thin films can we imagine over the horizon (cost reduction per MV, solution for operation at 4.5K)?		40	
11:15	11:55	Round Table:What are the key things that must yet be learned to make these visions possible? What is most needed to make substantial progress learning the key unknowns?		40	
11:55	12:55	Summary talk: what did we learn from this workshop		30	
	12:55	Workshop Closes			