

**International Workshop
on the
“Key material properties for Myrrha and Astrid”**

ENEA Headquarters, Via Giulio Romano 41, Rome

March 7-9th 2012

<u>Day 1: March 7th</u>		
<u>Plenary Session</u>		
10:30	Welcome	Pietro Agostini – ENEA
11:00	General description of MYRRHA Irradiation Facility	S.Gavrilov - SCK-CEN
11:30	General description of SFR Reactor	Eric Abonneau - Deputy Head of ASTRID Project
12:30	General description of ALFRED demonstrator	Luigi Mansani - ANSALDO
13:30	Lunch	
<u>AFTERNOON</u>		
<u>Technical Panel:</u>		
14:30	- Identification of key material issues for design of MYRRHA	
	<i>Speaker: Serguei Gavrilov</i>	
	<i>Technical experts: Sophie Dubiez-le Goff, Karl Frederick Nilsson, Jarir Aktaa, Georg Mueller, Luigi Mansani</i>	
	<i>Moderator: Prof. Nicola Bonora</i>	
16:00	<i>Coffee break</i>	
16:15	- Identification of key material issues for design of SFR	
	<i>Speaker: Sophie Dubiez-le Goff</i>	
	<i>Technical experts: Serguei Gavrilov, Karl Frederick Nilsson, Jarir Aktaa, Georg Mueller, Luigi Mansani</i>	
	<i>Moderator: Massimo Sepielli</i>	
17:45	adjourn	

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<u>Day 2: March 8th</u>
09:00 MORNING
<u>Technical Sessions:</u>
- Materials database and design codes
<i>Moderator: Karl Frederick Nilsson</i>
<i>Hans-Helmut Over, web based Data base MatDB</i>
<i>Wolfgang Hoffelner, Design code related aspects of creep-fatigue interactions</i>
<i>Davide Bernardi, RCC-MR rules and needs of their update for the design of LFR and SFR: creep-fatigue tests of P91 within MATTER project</i>
<i>Riccardo Donnini, FIMEC indentation test for the mechanical characterization of steels and other alloys of MATTER interest</i>
11:00 coffee break
<i>Giuseppe Barbieri, Welding of P91: troubleshooting and opportunities</i>
- Material damage at High-temperature
<i>Moderator: Jarir Aktaa</i>
<i>Warwick M Payten, Analysis of Creep Ductility in X10CrMoVNb91 Ferritic Martensitic Steel using Modified Hybrid Strain Energy Exhaustion</i>
<i>Stefan Holmström, Simple creep-fatigue model for defining impact of hold times; case P91 and 316FR</i>
<i>Claudio Testani, creep damage mechanisms and microstructure evolution of martensitic steel grades P91 and P92 and laser hybrid welding trials</i>
<i>Massimo Angiolini, Thermal Ratcheting of a cylinder subjected to a moving axial temperature gradient</i>
13:30 – 14:30 Lunch
- Material compatibility with coolants and welding of Austenitic and Ferritic martensitic Cr-Mo grade steels
<i>Moderator: Georg Mueller</i>
<i>Laure Martinelli, T91 corrosion modeling in flowing and stagnant Pb-Bi alloy</i>
<i>Alfons Weisenburger, Compatibility of austenitic steels with PbBi at MYRRHA relevant conditions</i>
<i>Alessandro Gessi, Corrosion in flowing Pb: from standard steels to ODS, The ENEA experience</i>

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<i>Adrian Jianu, Reduced activation and wear resistant coatings for applications in sodium cooled fast neutron reactors</i>	
16:30 coffee break	
<i>Anna Hojna, Evidence of Liquid Metal Embrittlement of the steel T91 in contact with Lead-Bismuth Eutectic</i>	
<i>Alessandro Del Nevo, Ivan Di Piazza, Mariano Tarantino, POST TEST ANALYSIS of ICE ACTIVITY</i>	
18:00	adjourn

20:30 Social dinner

<u>Day 3: March 9th</u>	
<u>09:30 MORNING</u>	
<u>Final Synthesis and conclusions of the workshop</u>	
<i>Conclusions of the two technical panels</i>	
<i>Syntheses of the three technical sessions</i>	
<i>Speakers:</i>	
<i>Nicola Bonora, Massimo Sepielli, Karl Frederick Nilsson, Jarir Aktaa, Georg Mueller</i>	
<i>Chairman: Pietro Agostini</i>	
12:00	<i>Pietro Agostini - Conclusions and MATTER relevance</i>
12:30	End of the workshop