

Report Title	Country	Material	Upload Status
Impact of Pre-Existing Crystal Lattice Defects on the Accumulation of Irradiation-Induced Damage in a C/C Composite	Australia	Ceramics	Uploaded
A Reassessment of the Multiaxial Ductility C* Creep Crack Growth Equation Based on the Strain Energy Integral of the HRR Singular Field Terms	Australia	Metals	Uploaded
The Effect of Strain Rate and Orientation on He Ion Irradiated Ni Single Crystals – An in Situ Micro-Tensile Study	Australia	Metals	Uploaded
On the Evolution of Mechanical Properties and Microstructure of Ferritic-Bainitic (FB) 2.25Cr-1Mo (Grade 22) Steel During High-Temperature Creep	Australia	Metals	Uploaded
The Formation and Accumulation of Radiation-Induced Defects and the Role of Lamellar Interfaces in Radiation Damage of TiAl Alloy Irradiated with Kr-Ions at Room Temperature	Australia	Metals	Uploaded
Synergistic Effect of Mo ₂ C Micro-Particles and SiC Nanoparticles on Irradiation-Induced Hardening in Dispersion-Precipitation Strengthened NiMo Alloys	Australia	Metals	Uploaded
Investigation of Mechanical Property Changes in He ²⁺ Ion Irradiated MA957 Through Nanoindentation and in Situ Micro-Tensile Testing	Australia	Metals	Uploaded
The Effect of Applied Stress on the High-Temperature Creep Behaviour and Microstructure of NiMoCr Hastelloy N Alloy	Australia	Metals	Uploaded
The Effect of Microstructure and Welding-Induced Plasticity on the Strength of Ni–Mo–Cr Alloy Welds	Australia	Metals	Uploaded
Creep Fatigue Testing of 2.25Cr-1Mo Steel	Australia	Metals	Uploaded
Creep of Notched P91 Steel	Australia	Metals	Uploaded
Investigating the Effect of Helium Ion Irradiation on Deformation Behaviour of Ni-Mo-Cr Alloy via In-Situ Micro-Tensile Testing	Australia	Metals	Uploaded
On the Prediction of Creep Behaviour of Alloy 617 Using Kachanov-Rabotnov Model Coupled with Multi-Objective Genetic Algorithm Optimisation	Australia	Metals	Uploaded
Atomic-scale Study of He Ion Irradiation-induced Clustering in α -Zirconium	Australia	Metals	Uploaded
Prediction of High-Temperature Creep Life of 2.25Cr-1Mo (Grade P22) Steel Using Data-Driven Models - Part I: The Multilayer Perceptron (MLP) Neural Network Applied to Long-Term Extrapolation Analyses	Australia	Metals	Uploaded

Report Title	Country	Material	Upload Status
Characterization of Deformation Structures in P-22 Cr-Mo Steel Through Electron Backscatter Diffraction and Transmission Electron Microscopy	Australia	Metals	Uploaded
Development and Performance of Data-Driven Models for the Prediction of the High-Temperature Fatigue Life of Alloy 617	Australia	Metals	Uploaded
Investigating Helium Ion Irradiation Resistance in Additively Manufactured Austenitic Stainless Steels	Australia	Metals	Uploaded
Micro-Tensile and TEM Analysis of Thermally Aged Ni-Mo-Cr Alloy Before and After Alpha Particle Irradiation	Australia	Metals	Uploaded
Review on Thermal Insulation Materials for Nuclear Reactor	Canada	Ceramics	Uploaded
Creep Behaviour of Grade 91 Steel – An Interim Report	Canada	Metals	Uploaded
Grain Boundary Motion Assisted via Radiation Cascades in bcc Fe	Canada	Metals	Uploaded
Temperature Dependence of Defect Production Efficiency in α -Fe	Canada	Metals	Uploaded
Oxide Dispersion Strengthened Steel Process Development at CANMET-MTL	Canada	Metals	Uploaded
Processing and Metallographic Characterization of Fe-Cr-Mo Steels as ODS Steel Base Metal and Coating Material	Canada	Metals	Uploaded
TEM Estimation of Particle Size of Nano-sized Yttria (Y ₂ O ₃) Powder Procured from Overseas	Canada	Metals	Uploaded
Development of a Mechanical Property Database for Generation IV Supercritical Water Reactor Materials	Canada	Metals	Uploaded
Atomistic Modelling of Σ 3 Twin Grain Boundary in Alloy 800H	Canada	Metals	Uploaded
Mechanical Property and Microstructure Characterization of Incoloy 800H Gas-Tungsten Arc Welds with Selected Filler Materials in the Application of High Temperature Gas-Cooled Reactor - Part I: Welding and Mechanical Properties	Canada	Metals	Uploaded
Weldability of Incoloy 800H Gas-Tungsten Arc Welds with Incoloy 625 Filler Material in the Application of HTGRs	Canada	Metals	Uploaded
Radiation-Induced Segregation at Grain Boundaries of Alloy 800H: Experimentally-Informed Atomistic Simulations	Canada	Metals	Uploaded
Characterization of Incoloy 800H Welded with Different Filler Materials	Canada	Metals	Uploaded

Report Title	Country	Material	Upload Status
High Temperature Creep and Fatigue Deformation and Mechanisms of Alloy 800H Weldments Using Different Filler Materials	Canada	Metals	Uploaded
Corrosion Behavior of Incoloy 800H Welded with Different Filler Materials in Helium Environment under High Temperature Gas Cooled Reactor Conditions	Canada	Metals	Uploaded
A Combined Molecular Dynamics and Dislocation Dynamics Simulation of Dislocation Mobility, Dislocation Density, and the Stress-Strain Relationship in FeCrNi Alloys	Canada	Metals	Uploading
An Evaluation on Fatigue Crack Growth in a Fine-grained Isotropic Graphite	China	Graphite	Uploaded
Components Failure Test of IG11 Graphite	China	Graphite	Uploaded
Graphite Structures Dynamic Tests/Single-Column Graphite Structure	China	Graphite	Uploaded
Stress-Rupture Test of 2.25Cr1Mo Alloy at 550	China	Metals	Uploaded
Stress-Rupture Test of 800H Alloy at 675	China	Metals	Uploaded
Intergranular Corrosion of 800H Alloy	China	Metals	Uploaded
Numerical Study on the Structural Integrity of Graphite Components under Irradiation	China	Graphite	Uploading
Analysis of Elevated Temperature Components	China	Metals	Uploading
Materials for the Core and Internals: Synthesis of Materials Database	European Union	Ceramics	Uploaded
Past Experience on Mechanical Testing of C/C for HTR Development	European Union	Ceramics	Uploaded
Requirements for C/C Control Rods in HTR Conditions	European Union	Ceramics	Uploaded
Synthesis of Preferred C/C Composite Materials for the VHTR Control Rod	European Union	Ceramics	Uploaded
Oxidation Resistance of Innovative Carbon Based Materials	European Union	Ceramics	Uploaded
Microstructural Modelling of C-Based Materials	European Union	Ceramics	Uploaded
General Guidelines for Machining Composite Specimens for Irradiation Experiments	European Union	Ceramics	Uploaded
Final Report on Oxidation Resistance of Carbon Based Materials Performed Within RAPHAEL	European Union	Ceramics	Uploaded
Microstructural Modelling of C-Based Materials	European Union	Ceramics	Uploaded
Development of Design Data and Guidelines	European Union	Ceramics	Uploaded
Development of Guidelines for Carbon Composites – Scope and Planning	European Union	Ceramics	Uploaded
Development of Design Data and Guidelines	European Union	Ceramics	Uploaded
Synthesis Of Results On Carbon Composite Materials Within The EU RAPHAEL IP.	European Union	Ceramics	Uploaded
C-based Materials Database Template	European Union	Ceramics	Uploaded

Report Title	Country	Material	Upload Status
Review of SiCf/SiCm Corrosion, Erosion and Erosion-Corrosion in High Temperature Helium Relevant to GFR Conditions	European Union	Ceramics	Uploaded
Graphite Material Procurement and Characterisation	European Union	Graphite	Uploaded
Review of Graphite Oxidation Research and Development Needs and Tests	European Union	Graphite	Uploaded
Intermediate Progress Report on RAPHAEL-ML on Graphite Oxidation	European Union	Graphite	Uploaded
Second Intermediate Progress Report for RAPHAEL-ML on Graphite Oxidation	European Union	Graphite	Uploaded
Graphite Corrosion Test Results and Assessment	European Union	Graphite	Uploaded
HTR-M1 Report on Preliminary Irradiation Testing of Selected Graphites for HTR-Report on Irradiation and Post-Irradiation Tests	European Union	Graphite	Uploaded
Progress on Continuation of The 750°C Graphite Irradiation Test	European Union	Graphite	Uploaded
First Intermediate Progress Report on RAPHAEL-ML Graphite Irradiation Experiments	European Union	Graphite	Uploaded
Progress of Graphite Irradiation Tests at Higher Temperature	European Union	Graphite	Uploaded
Progress Report on Continuation of 750°C Irradiation Beyond Turnround	European Union	Graphite	Uploaded
Progress Report on the Irradiation Tests at 950°C	European Union	Graphite	Uploaded
Continuation of the 750°C Graphite Irradiation	European Union	Graphite	Uploaded
Graphite Irradiation at 950°C	European Union	Graphite	Uploaded
Status of Development of Modelling Methods for Graphite	European Union	Graphite	Uploaded
Graphite Modelling Progress Report-1	European Union	Graphite	Uploaded
Graphite Modelling Progress Report-2	European Union	Graphite	Uploaded
Development of Modelling Methods for Graphite Behaviour	European Union	Graphite	Uploaded
Progress Report in Irradiation Tests at 950°C	European Union	Graphite	Uploaded
Microstructure Analysis On Irradiated Graphite (D41.14)	European Union	Graphite	Uploaded
Report On Strength Measurements Of Irradiated Graphite (D14.15)	European Union	Graphite	Uploaded
Graphite Screening Results at 750°C & 950°C (D41.11)	European Union	Graphite	Uploaded
High Dose Experiments at 750°C & 950°C - Full PIE of INNOGRAPH-1B and INNOGRAPH-2B (D41.12)	European Union	Graphite	Uploaded
Final Design Proposal Low Dose Irradiation (D41.13)	European Union	Graphite	Uploaded
Heat-Up Experiment On Irradiated Graphite	European Union	Graphite	Uploaded

Report Title	Country	Material	Upload Status
Development Of Modelling Methods For Graphite Behaviour (Final Report)	European Union	Graphite	Uploaded
Report On Graphite Selection And Recommended Design Properties	European Union	Graphite	Uploaded
State Of The Art Review Of HTR Vessel Materials	European Union	Metals	Uploaded
Creep Behaviour Of Mod 9 Cr 1 Mo And Weldments Up To 550°C Environment	European Union	Metals	Uploaded
Technical Synthesis Of Candidate Turbine Materials	European Union	Metals	Uploaded
Tensile And Creep Properties Of Udimet 720 At 650°C And Blade Alloys Up To 850°C Environment	European Union	Metals	Uploaded
Testing Of Mod 9 Cr 1 Mo Steel And Weldments For HTR RPV Under Representative Irradiation Environment. Results At Temperatures Up To 550°C	European Union	Metals	Uploaded
Short & Medium Term Tests On Carburised And Decarburised High Strength (Turbine Blade) Alloys: IN792 And CM247	European Union	Metals	Uploaded
Material Properties For Design Rules For Ni Base Turbine Superalloys	European Union	Metals	Uploaded
HTR Vessel Material Testing Programme - Specification Of Vessel Materials PIE Tests And Progress	European Union	Metals	Uploaded
Modified 9Cr-1Mo Steel Vessel – Procurement And Manufacture Of The Welded Joints	European Union	Metals	Uploaded
Candidate Materials For IHX & Test Programme	European Union	Metals	Uploaded
Creep Testing Of Pre-Irradiated Mod 9 Cr 1 Mo Steel And Weldments Test Specimens For HTR RPV	European Union	Metals	Uploaded
Creep Tests Of Carburised High Strength (Turbine Disc) Alloy Udimet 720	European Union	Metals	Uploaded
Report On Creep-Fatigue Interaction Of Mod 9 Cr 1 Mo For Vessel Application – Review And Recommendations For Future Work	European Union	Metals	Uploaded
Assessment Of Results From Raphael IHX Test Programme	European Union	Metals	Uploaded
Ageing Tests On Mod 9 Cr 1 Mo Steel Welds At 450°C	European Union	Metals	Uploaded
Creep Behaviour Of Mod 9 Cr 1 Mo Weldment At 650°C	European Union	Metals	Uploaded
Realisation Of Feature Test	European Union	Metals	Uploaded
Synthesis Of Results From RAPHAEL Vessel Materials Investigations	European Union	Metals	Uploaded
Synthesis Of Results From RAPHAEL High Temperature	European Union	Metals	Uploaded
Procurement Of Test Material	European Union	Metals	Uploaded
Degradation Of Metallic Materials In HTR Helium	European Union	Metals	Uploaded

Report Title	Country	Material	Upload Status
Review Of Existing Data On Alloy 800H (Focusing On Thin Sheet) And Produce Results Applicable To Mock-Up And IHX	European Union	Metals	Uploaded
Creep Behaviour Of Mod 9 Cr 1 Mo Weldment At 650C- Assessment Of Results	European Union	Metals	Uploaded
Compilation Of Reference Mechanical And Micro-Structural Data For 800H And Weldments (D42.12)	European Union	Metals	Uploaded
Report On Pre-Damage Procedures & Characterization Of Pre-Damaged Samples Using Small Samples (D42.23)	European Union	Metals	Uploaded
Specification Of Sample Tests On Thin Sheets And Format Of Data For Tests (D43.52)	European Union	Metals	Uploaded
Materials Testing Of Thin Section Alloy 800H Weldments For Reactor Heat Exchanger Applications (D43.54)	European Union	Metals	Uploaded
Creep and Relaxation Tests Report	European Union	Metals	Uploaded
Test Report with Determination of Creep Weld Factors on Alloy800H Thin-section Material	European Union	Metals	Uploaded
Results of Testing and Irradiation Behaviour of Mod 9Cr 1Mo Steel RPV Welds and Base Material	European Union	Metals	Uploaded
EU Deliverables & Cost Estimates for Metals Working Group Programme Within the Project Arrangement of the GIF VHTR Materials Project Management Board	European Union	Metals	Uploaded
High Temperature Reactor Development in the European Framework: the RAPHAEL Integrated Project	European Union	Metals	Uploaded
A Synthesis Report for Multi-Scale Models for of Tempered Martensitic Steels Including Experimental Observations	European Union	Metals	Uploaded
The Innograph Irradiations; HTR Graphite Material Properties from 0 to 25 DPA	European Union	Graphite	Uploading
X-Ray Tomographic Characterization of the Macroscopic Porosity of CVI SiC/SiC Composites, Effects on the Thermo-Mechanical Behaviour	France	Ceramics	Uploaded
Interface Characteristics on the Mechanical Properties of Hi-Nicalon Type-S or Tyranno-SA3 Fiber-Reinforced SiC/SiC Minicomposites	France	Ceramics	Uploaded
Effect of Oxydation on the Mechanical Behaviour of Plates in SIC/SIC Composite	France	Ceramics	Uploaded
Measurement of Permeation under Load on Plates SIC/SIC Composite	France	Ceramics	Uploaded
RUPTHERSIC Tests	France	Ceramics	Uploaded

Report Title	Country	Material	Upload Status
Mechanical Behaviour Of Composite SiC/SiC Tubes : Microstructure/Mechanical Properties Relationship	France	Ceramics	Uploaded
Thermomechanical Characterization And Simulation Of SiC/SiC Composites Tubes	France	Ceramics	Uploaded
Thin Thickness Composite SiC/SiC	France	Ceramics	Uploaded
Mechanical Properties of SiC/SiC Braided Tubes for Fuel Cladding	France	Ceramics	Uploaded
Ion Irradiation Effects on Third Generation SiC Fibers in Elastic and Inelastic Energy Loss Regimes	France	Ceramics	Uploaded
Behavior of Nuclear Materials Irradiated with a Dual Ion Beam	France	Ceramics	Uploaded
Tailoring of SiC Nanoprecipitates Formed in Si	France	Ceramics	Uploaded
Characterization of SiC/SiC Composites Damage Mechanisms Using Digital Image Correlation at the Tow Scale	France	Ceramics	Uploaded
Micromechanical Modeling of The Elastic Behavior of Unidirectional CVI SiC/SiC Composites	France	Ceramics	Uploaded
Anisotropic Damage Behavior of SiC/SiC Composite Tubes: Multiaxial Testing and Damage Characterization	France	Ceramics	Uploaded
Study of the Ion-Irradiation Behavior of Advanced SiC Fibers by Raman Spectroscopy and Transmission Electron Microscopy	France	Ceramics	Uploaded
In situ E-SEM and TEM Observations of the Thermal Annealing Effects on Ion-amorphized 6H-SiC Single Crystals and Nanophased SiC Fibers	France	Ceramics	Uploaded
Recovery Effects due to the Interaction between Nuclear and Electronic Energy Losses in SiC Irradiated with a Dual-ion Beam	France	Ceramics	Uploaded
Mechanical Characterization of Tubes SiC / SiC Analysis of the Microstructure of Composites with Tomomographie	France	Ceramics	Uploaded
Multiscale Thermal Characterization of Mechanically Loaded Ceramic Matrix Composite Estimation of Thermal Diffusivity at Micro/Mesoscale	France	Ceramics	Uploaded
A Flash Characterisation Method for Thin Cylindrical Multilayered Composites Based on the Combined Front and Rear Faces Thermograms	France	Ceramics	Uploaded
Simultaneous Infiltration of Submicron SiC Powder and AHPCS during Electrophoretic Infiltration: A New Straightforward Process to Synthetize SiCf/SiC Composites	France	Ceramics	Uploaded

Report Title	Country	Material	Upload Status
In Situ TEM Annealing of Ion-Amorphized Hi Nicalon S and Tyranno SA3 SiC Fibers	France	Ceramics	Uploaded
Longitudinal Dilation Behavior of Ion-Irradiated Tyranno™-SA SiC Fibers at Elevated-Temperatures	France	Ceramics	Uploaded
Mechanical Properties Prior to Irradiation of Graphite Grades PCEA and NBG-17: Compliation of Results	France	Graphite	Uploaded
Oxygraph Tests In "Closed Loop" Configuration	France	Graphite	Uploaded
Long Term Corinth Testing	France	Graphite	Uploaded
Creep–Fatigue–Oxidation Interactions in a 9Cr–1Mo Martensitic Steel, Part I: Effect of Tensile Holding Period on Fatigue Lifetime	France	Metals	Uploaded
Creep-Fatigue-Oxidation Interactions in a 9Cr–1Mo Martensitic Steel, Part II: Effect of Compressive Holding Period on Fatigue Lifetime	France	Metals	Uploaded
Microstructural Evolutions and Cyclic Softening of 9%Cr Martensitic Steels	France	Metals	Uploaded
Macroscopic Results of Long-Term Creep on a Modified 9Cr-1Mo Steel (T91)	France	Metals	Uploaded
Assessment of Results VHTR High Temperature Alloys	France	Metals	Uploaded
Creep-Fatigue-Oxidation Interactions in a 9Cr-1Mo Martensitic Steel, Part III: Lifetime Prediction	France	Metals	Uploaded
Presentation of RCC-MR Code 2007 for High Temperature Reactor and ITER Projects: General Overview	France	Metals	Uploaded
Presentation of RCC-MR Code 2007 for High Temperature Reactor and ITER Projects: Improvement of the Leak-Before-Break Procedure and Related Defect Assessment Tools	France	Metals	Uploaded
Presentation of RCC-MR Code 2007 for High Temperature Reactor and ITER Projects: Improvement of the Creep Fatigue Rules	France	Metals	Uploaded
Mechanical Behaviour of HTR Materials: Developments in Support of Defect Assessment, Structural Integrity and Lifetime Evaluation	France	Metals	Uploaded
Presentation of the Afcen RCC-MRx Code for Sodium Reactors (SFR), Research Reactor (RR) and Fusion (ITER): General Overview	France	Metals	Uploaded
The Role of Environment on High Temperature Creep-Fatigue Behavior of Alloy 617	France	Metals	Uploaded
Modelling and Experimental Study of the Tertiary Creep Stage of Grade 91 Steel	France	Metals	Uploaded

Report Title	Country	Material	Upload Status
Results of The Mechanical and Microstructural Characterizations of 617 and 230 Alloys. Mechanical Properties of An LP1 Deliverable 617 TIG Welded Joint	France	Metals	Uploaded
First Fatigue-Creep Test in a HTR Environment in the FATCHE Facility	France	Metals	Uploaded
Mechanical Behaviour of SFR Materials: Proposition of Fatigue Weld Joint Coefficient for Mod9Cr-1Mo	France	Metals	Uploaded
Tensile Characterization of a GTAW Bimetallic Weld Mod 9Cr-1Mo – 316L(N) with a New Measurement System for Tensile Testing	France	Metals	Uploaded
Presentation of RCC-MRx Code 2010 for Sodium Reactors (SFR), Research Reactor (RR) and Fusion (ITER): General Overview and CEN-Workshop	France	Metals	Uploaded
Presentation of FP7 Matter Project: General Overview	France	Metals	Uploaded
Material Report in Support to RCC-MRx Code 2010 Stainless Steel Parts and Products	France	Metals	Uploaded
Materials Database: Structure of the Base Description	France	Metals	Uploaded
Numerical Simulation and Experimental Study of Creep Damage of Grade 91 Steel in the Framework of Generation IV Nuclear Plant	France	Metals	Uploaded
Summary of R&D on the Corrosion of IHX Alloys	France	Metals	Uploaded
Study of Creep of Welded Joint Made of AISI 316 : Strain Hardening Effect	France	Metals	Uploaded
Hydrogen Embrittlement Susceptibility of Tempered 9%Cr-1%Mo Steel	France	Metals	Uploaded
Simulation Of Alloy Thermodynamics: From An Atomic To A Mesoscale Hamiltonian	France	Metals	Uploaded
Segregation In Bimetallic Nanowires: Size And Thermodynamic Ensemble Effects	France	Metals	Uploaded
Decomposition Kinetics Of Fe-Cr Solid Solution During Thermal Aging	France	Metals	Uploaded
Simulation Of Fatigue Behaviour Of Stainless Steels And Others FCC Alliages	France	Metals	Uploaded
Liquid Sodium Embrittlement Of The T91 Martensic Steel: Effect Of Impurities	France	Metals	Uploaded
Corrosion By Oxidation And Carburization In Liquid Sodium At 550°C Of Austenitic Steels For Sodium Fast Reactors	France	Metals	Uploaded
Evolution Brought To RCC-MRx Code In Relation To ASTRID Project	France	Metals	Uploaded
Synthesis Of R&D Results On 9%Cr Steels For Steam Generator Of Sodium Reactors	France	Metals	Uploaded

Report Title	Country	Material	Upload Status
Hot Cracking Study On Some Austenitic Stainless Steels	France	Metals	Uploaded
Creep Mechanical Behaviour Of Modified 9Cr1Mo Modified Steel Weldments - Experimental Analysis And Modelling_GenIV	France	Metals	Uploaded
Summary of Tests on the Effect of a Static Tensile Stress on the Life in Cyclic Torsion	France	Metals	Uploaded
Results of Dilatometer Tests on Welded 9% Cr Steel Joints	France	Metals	Uploaded
Review of the Existing Rules for Ratcheting	France	Metals	Uploaded
Exact Ab Initio Transport Coefficients in BCC Fe-X (X=Cr, Cu, Mn, Ni, P, Si) Dilute Alloys	France	Metals	Uploaded
Stress-induced Anisotropic Diffusion in Alloys: Complex Si Solute Flow near a Dislocation Core in Ni	France	Metals	Uploaded
Energetic Landscape and Diffusion of He in α -Fe Grain Boundaries from First Principles	France	Metals	Uploaded
Study of Helium Migration in Nuclear Materials at Jannus-Saclay	France	Metals	Uploaded
Chromium Enrichment on the Habit Plane of Dislocation Loops in Ion-irradiated High-purity Fe-Cr Alloys	France	Metals	Uploaded
Overview of 9Cr Steels Properties for Structural Application in Sodium Fast Reactors	France	Metals	Uploaded
Fatigue Testing of Welded Junctions	France	Metals	Uploaded
800 Alloy: Characterisations of Tube WA 136, Ageing Program on Super-Phenix Type Tubes	France	Metals	Uploaded
Tension-torsion Ratcheting Tests on 9Cr Steel at High Temperature	France	Metals	Uploaded
Characterization of Temperature and Strain Fields during Cyclic Laser Shocks	France	Metals	Uploaded
Corrosion Austenitic Steels Liquid Sodium Oxidation Mechanisms	France	Metals	Uploaded
Design Rules for Ratcheting Damage in AFCEN RCC-MRX 2012 Code	France	Metals	Uploaded
Application Case of RCC-MRX 2012 Code in Significant Creep	France	Metals	Uploaded
Plastic Anisotropy and Dislocation Trajectory in BCC Metals	France	Metals	Uploaded
Interplay between Magnetism and Energetics in Fe-Cr Alloys from a Predictive Noncollinear Magnetic Tight-Binding Model	France	Metals	Uploaded
Atomic-based Phase-Field Method for the Modeling of Radiation Induced Segregation in Fe-Cr	France	Metals	Uploaded

Report Title	Country	Material	Upload Status
Kinetics of α' Precipitation in an Electron-irradiated Fe15Cr Alloy	France	Metals	Uploaded
Effect of Chromium on Void Swelling in Ion Irradiated High Purity Fe-Cr Alloys	France	Metals	Uploaded
Microstructural Characterization of Eurofer-97 And Eurofer-Ods Steels before and after Multi-Beam Ion Irradiations at Jannus Saclay Facility	France	Metals	Uploaded
Modeling and Experimental Study of Long Term Creep Damage in Austenitic Stainless Steels	France	Metals	Uploaded
Correlation of Radiation-Induced Changes in Microstructure/Microchemistry, Density and Thermo-Electric Power of Type 304L and 316 Stainless Steels Irradiated in the Phénix Reactor	France	Metals	Uploaded
High Resolution Transmission Electron Microscopy Characterization of A Milled Oxide Dispersion Strengthened Steel Powder	France	Metals	Uploaded
Structural Materials for Next Generation Nuclear Systems: Challenges and the Path Forward	France	Metals	Uploaded
Strain and Damage to Martensitic Steels Tempered at High Temperature	France	Metals	Uploaded
High Temperature Creep–Fatigue–Oxidation Interactions in 9–12%Cr Martensitic Steels	France	Metals	Uploaded
Damage Characterization of SiC/SiC Composite Tubes by in situ X-Ray Tomography	France	Ceramics	Uploading
Second Year of Thesis Progress Report Concerning the Behavior of Composites Sic/Sic in an Environment of a Sodium-Cooled Fast Reactor	France	Ceramics	Uploading
FFT-Based Homogenization of the Mechanical Behavior of SiC/SiC Composites	France	Ceramics	Uploading
Characterization and Modelling of the Mechanical Behavior of SiCf/SiC Composites	France	Ceramics	Uploading
THERMAL CHARACTERISATION OF TUBULAR SIC/SIC COMPOSITE STRUCTURES FOR NUCLEAR APPLICATIONS	France	Ceramics	Uploading
CEA report on the mechanical characterizations performed in 2006 for the PCEA and NBG-17 graphite grades before irradiation	France	Graphite	Uploading
CEA report on the mechanical characterizations performed in 2007 for the PCEA and NBG-17 graphite grades before irradiation	France	Graphite	Uploading
Raman characterization Raman of ions irradiated samples : synthesis of the first studies carried out in the JANNUS plateforme	France	Metals	Uploading

Report Title	Country	Material	Upload Status
First principles defect energetics for simulations of silicon carbide under irradiation: Kinetic mechanisms of silicon di-interstitials	France	Metals	Uploading
Tension-torsion ratcheting tests on 9Cr steel at high temperature	France	Metals	Uploading
User Documentation for CRESCENDO v3.0	France	Metals	Uploading
Work Package 6 (manufacturing and welding) sensitivity of 2 filler materials and 316L(N)	France	Metals	Uploading
MATTER (MATERIALS TESTING AND RULES) PROJECT Work Package 6 (manufacturing and welding)	France	Metals	Uploading
Modeling Of Creep Cavitation In 316L (N)	France	Metals	Uploading
Bibliographical report : rupture mechanisms of a system metal / oxide after high-temperature oxidation in steam environment	France	Metals	Uploading
Characterization Of 2D-C/C Composite For Application To In-Core Structure Of Very High Temperature Reactor (VHTR)	Japan	Ceramics	Uploaded
Correlation Of Microstructure And Compressive Strength Of C/C Composite Using X-Ray Tomography	Japan	Ceramics	Uploaded
Research And Development On C/C Composite For Very High Temperature Reactor (VHTR) Application	Japan	Ceramics	Uploaded
Study of Design and Fabrication Method of SiC Matrix Fuel Compact	Japan	Ceramics	Uploaded
Oxidation Effects on Ultrasonic Wave Velocity for IG-110 and IG-430 Graphites	Japan	Graphite	Uploaded
Development of Evaluation Method with X-Ray Tomography for Material Property of IG-430 Graphite for VHTR/HTGR	Japan	Graphite	Uploaded
Irradiation Test about Oxidation-Resistant Graphite in WWR-K Research Reactor	Japan	Graphite	Uploaded
Post Irradiation Experiment about SiC-coated Oxidation-resistant Graphite for High Temperature Gas-cooled Reactor	Japan	Graphite	Uploaded
Creep Test of Hastelloy XR	Japan	Metals	Uploaded
Coolant Impurity Management in Long-Term Operation of HTR	Japan	Metals	Uploaded
Flexural Mechanical Properties of Selected Nuclear-Grade C/C Composites	Korea	Ceramics	Uploaded
Thermal Properties of Selected Nuclear-Grade C/C Composites	Korea	Ceramics	Uploaded
Tensile Strength and Interlaminar Shear Strength of Selected Nuclear-Grade C/C Composites	Korea	Ceramics	Uploaded
Oxidation Damage of C/C Composites in Air	Korea	Ceramics	Uploaded

Report Title	Country	Material	Upload Status
Micro-Compression Tests of 3C-SiC Micro-Pillars Before and After Ion Irradiation	Korea	Ceramics	Uploaded
Oxidation Behavior Of C/C Composite In He	Korea	Ceramics	Uploaded
Oxidation of CVD SiC and SiCf/SiC Composite in He Atmosphere	Korea	Ceramics	Uploaded
Effects of Crack Measurement Methods on The Determination of Fracture Toughness of IG-11 Isotropic Graphite	Korea	Graphite	Uploaded
Comparison of Oxidation Characteristics of Selected Nuclear Graphite Grades	Korea	Graphite	Uploaded
Evaluation of the Gamma-Irradiation Effects on the IG-110 Nuclear Graphite by Raman Spectroscopy, XRD and Hardness Measurement	Korea	Graphite	Uploaded
Pore Size Change in Depth and Oxidation Reaction of Selected Nuclear Graphite in 873-1,223 K Air	Korea	Graphite	Uploaded
Positron Lifetime and Raman Spectroscopy of Ion Irradiated Nuclear Graphite	Korea	Graphite	Uploaded
Specimen Size Effects On The Compressive Strength And Weibull Modulus Of Nuclear Graphite Of Different Coke Particle Size: IG-110 And NBG-18	Korea	Graphite	Uploaded
High Temperature Young's Modulus Of Nuclear Graphite	Korea	Graphite	Uploaded
Specimen Size Effects On The Flexural Strength And Weibull Modulus Of Nuclear Graphite IG-110, NBG-18, And PCEA	Korea	Graphite	Uploaded
Effect Of Total Pressure On The Pore Structure And Oxidation Behavior Of Nuclear Graphites	Korea	Graphite	Uploaded
Comparison of Fracture Toughness (KIC) and Strain Energy Release Rate (G) of Selected Nuclear Graphite	Korea	Graphite	Uploaded
Effects of Air Flow Rate on the Oxidation of NBG-18 and NBG-25 Nuclear Graphite	Korea	Graphite	Uploaded
Creep-Fatigue Data of Mod. 9Cr-1Mo Steel	Korea	Metals	Uploaded
Creep and Creep-Fatigue Data of Mod 9Cr-1Mo Steel	Korea	Metals	Uploaded
Experimental Creep Crack Growth Data for Mod. 9Cr-1Mo Steel	Korea	Metals	Uploaded
Determination of the YS and UTS Stress Limits at High Temperatures for Alloy 617	Korea	Metals	Uploaded
Prediction of Creep Rupture Strength at 10,000 h for Alloy 617	Korea	Metals	Uploaded
Modeling of a Creep Strain-Time Curve for Alloy 617	Korea	Metals	Uploaded
Fatigue Data of Alloy 617	Korea	Metals	Uploaded
Experimental Creep Data For Alloy 617 In He Environment At 950°C	Korea	Metals	Uploaded

Report Title	Country	Material	Upload Status
Experimental Creep Data for Alloy 617 at 900°C and 975°C	Korea	Metals	Uploaded
Experimental Creep Data for Alloy 617 in He Environment at 900°C	Korea	Metals	Uploaded
Oxidation Behavior of Alloy 617 in He Environment	Korea	Metals	Uploaded
Creep Crack Growth Data for HAZ of 9Cr-1Mo Steel at 600°C	Korea	Metals	Uploaded
Long-Term Creep Data in Air and He Environments of Alloy 617 at 900°C	Korea	Metals	Uploaded
Creep-Fatigue Data of Mod. 9Cr-1Mo Steel at 600°C with 10 min Hold Time	Korea	Metals	Uploaded
Microstructure Changes of Alloy 617 Crept in He Environment at 900°C	Korea	Metals	Uploaded
Through Thickness Mechanical Properties of a Heavy Section 9Cr-1Mo Steel	Korea	Metals	Uploaded
Creep Crack Growth Data of Mod. 9Cr-1Mo Steel At 550°C	Korea	Metals	Uploaded
Creep Rupture Data of Alloy 617 in Air and He Environments at 850°C	Korea	Metals	Uploaded
Irradiated Properties of Heavy Sectioned G91 Steel and Weld	Korea	Metals	Uploaded
High Temperature Low Cycle Fatigue Data of Alloy 617 Under He Environment	Korea	Metals	Uploaded
Surface Reactions and Material Property of Ni Based Alloy in Helium Environment	Korea	Metals	Uploaded
Dynamic Cyclic Creep Behavior of Mod. 9Cr-1Mo Steel at 600°C	Korea	Metals	Uploaded
High-Temperature Tensile Data Of Alloy 617 Welded By GTAW Method	Korea	Metals	Uploaded
Creep Rupture Data And Microstructures In Air And He Environments Of Alloy 617 At 800°C	Korea	Metals	Uploaded
Creep Rupture Data Of Alloy 617 GTAW Weldment At 800°C	Korea	Metals	Uploaded
Creep Crack Growth Data Of Alloy 617 At 800°C	Korea	Metals	Uploaded
Creep Crack Growth Data Of Alloy 617 At 850°C	Korea	Metals	Uploaded
Creep crack growth data on weld metal of mod. 9Cr-1Mo steel at 550°C	Korea	Metals	Uploaded
Creep rupture data of Alloy 617 GTAW weldment at 900°C	Korea	Metals	Uploaded
Creep Crack Growth Data Of Alloy 617 At 900°C	Korea	Metals	Uploaded
Creep test data of welded Alloy 800H at 800°C	Korea	Metals	Uploaded
Creep Rupture Data of Alloy 617 GTAW Weldment at 850°C	Korea	Metals	Uploaded

Report Title	Country	Material	Upload Status
Time-Dependent Crack Growth Behavior For A SMAW Weldment Of Gr. 91 Steel	Korea	Metals	Uploaded
Creep Rupture Data of Alloy 617 GTAW Weldment at 950°C	Korea	Metals	Uploaded
Creep Tests for Base and Weld Metals of Alloy 800H at 850°C	Korea	Metals	Uploaded
Creep Crack Growth Tests on Weld Metal of Mod. 9Cr. 1Mo Steel at 600°C	Korea	Metals	Uploaded
Creep Test Results of Alloy 800H Base and Weld Metals at 700°C	Korea	Metals	Uploaded
Tension and Creep Test Results of Thermally-Aged Alloy 617 for 1y (8,760h) at 900°C	Korea	Metals	Uploaded
Tension and Creep Test Results of Thermally-Aged Alloy 617 for 2y (17,520h) at 900°C	Korea	Metals	Uploaded
Creep Test Results on Alloy 800H Base and Weld Metals at 750°C	Korea	Metals	Uploaded
Tension Property of Diffusion-Welded Alloy 617	Korea	Metals	Uploaded
Effect of Preassembly Cleaning on Tensile Property of Diffusion-Welded Alloy 617	Korea	Metals	Uploaded
Tensile Property of Diffusion-Welded Hastelloy X	Korea	Metals	Uploaded
Low Cycle Fatigue Behavior of Diffusion-Welded Alloy 617	Korea	Metals	Uploaded
Type 1 & Type 2 Control Rod Material Irradiation Test Requirement Specification	South Africa	Ceramics	Uploaded
Type 1 CFRC (Plate) Material Specification	South Africa	Ceramics	Uploaded
Type 2 CFRC (Strap) Material Specification	South Africa	Ceramics	Uploaded
CFRC Plate - SRC 1, AOA A Material Qualification Plan	South Africa	Ceramics	Uploaded
CFRC Strap - SRC 1, AOA A Material Qualification Plan	South Africa	Ceramics	Uploaded
Material Qualification Report CFRC ®SIGRABOND 1502 YR Plate	South Africa	Ceramics	Uploaded
Material Qualification Report CFRC ®SIGRABOND 2002 YR Straps	South Africa	Ceramics	Uploaded
SGL SIGRABOND 2002 YR CFRC Material Datasheet	South Africa	Ceramics	Uploaded
SGL SIGRABOND 1502 YR CFRC Material Datasheet	South Africa	Ceramics	Uploaded
Type 1 Insulation - Irradiation Test Requirement Specification	South Africa	Ceramics	Uploaded
Development of QC/NDE for CFRC ®SIGRABOND 1502 Plate Material - Phase 1 Test Report	South Africa	Ceramics	Uploaded

Report Title	Country	Material	Upload Status
Depressurisation Resistance, Phase 1: Effects of Rapid Depressurisation in Helium Environment on NBG-18 Graphite Material, CFRC Sigrabond 1502 YR Plate Material, CFRC Sigrabond 2002 YR Wound Material and CFRC Sigabond 1502 YR PYC Coated Material	South Africa	Graphite	Uploaded
Fillet Radii Test	South Africa	Graphite	Uploaded
Porifer V1.7 (model)	South Africa	Graphite	Uploaded
Graphite Gas Adsorption Porifer User Manual	South Africa	Graphite	Uploaded
Material Qualification Report NBG-18	South Africa	Graphite	Uploaded
Grade Development Report for NBG-18	South Africa	Graphite	Uploaded
Lateral Restraint Strap Qualification Test- Snubber/Graphite Interface	South Africa	Graphite	Uploaded
Type 1 Graphite Material Specification	South Africa	Graphite	Uploaded
Type 1 Graphite Charge Strength Acceptance Procedure	South Africa	Graphite	Uploaded
Fracture Toughness Testing of Graphite ASTM D02.FO Round Robin Tests	South Africa	Graphite	Uploaded
NBG18 Graphite Fatigue Characterisation	South Africa	Graphite	Uploaded
Graphite Adsorption Mathematical Modelling of Degassing of A Porous Graphite Body	South Africa	Graphite	Uploaded
Sleeve Burst Test	South Africa	Graphite	Uploaded
Oxidation Test Report in MAT-MHI-1002	South Africa	Metals	Uploaded
Creep and Fatigue Test Report in PBMR-MHI-049 & 059	South Africa	Metals	Uploaded
Spectral Emissivity Measurements on Materials with Varying Surface Conditions	South Africa	Metals	Uploaded
Investigation of The Thermal Conductivity of SiC/SiC Cladding Before And After Irradiation	Switzerland	Ceramics	Uploaded
In-Beam Creep of SiCf/SiC Minicomposites Under Uniaxial Tensile Loading	Switzerland	Ceramics	Uploaded
Thermal and Irradiation Creep Behaviour of A Titanium Aluminide in Advanced Nuclear Plant Environments	Switzerland	Metals	Uploaded
Damage Assessment in Structural Metallic Materials for Advanced Nuclear Plants	Switzerland	Metals	Uploaded
ODS Steel as Structural Material for High Temperature Nuclear Reactors	Switzerland	Metals	Uploaded
Depinning Transition of a Dislocation Line in Ferritic Oxide Strengthened Steels	Switzerland	Metals	Uploaded
Crack Resistance Curves Determination of Tube Cladding Material	Switzerland	Metals	Uploaded

Report Title	Country	Material	Upload Status
Assessment of the Constitutive Properties from Small Ball Punch Test: Experiment and Modeling	Switzerland	Metals	Uploaded
An X-Ray Absorption Spectroscopy Study of an Oxide Dispersion Strengthened Steel	Switzerland	Metals	Uploaded
Creep-Fatigue Life Determination of Grade 91 Steel Using a Strain- Range Separation Method	Switzerland	Metals	Uploaded
In Situ Creep under Helium Implantation of Titanium–Aluminum Alloy	Switzerland	Metals	Uploaded
Material Databases and Knowledge Management for Advanced Nuclear Technologies	Switzerland	Metals	Uploaded
Creep Properties and Related Microstructural Changes of a Lamellar Titanium Aluminide Alloy Before and After Helium-Implantation	Switzerland	Metals	Uploaded
Determination of Helium Implantation Induced Swelling in ODS Steels	Switzerland	Metals	Uploaded
Crack Resistance Curve Determination of Zircaloy-4 Cladding	Switzerland	Metals	Uploaded
Activation Volume and Energy of P91	Switzerland	Metals	Uploaded
Creep Test of ODS Tube	Switzerland	Metals	Uploaded
High Temperature Creep of a Helium-Implanted Titanium Aluminide Alloy	Switzerland	Metals	Uploaded
Helium Embrittlement of a Lamellar Titanium Aluminide	Switzerland	Metals	Uploaded
Preparation and Characterization of Mechanically Alloyed, Yttria Containing Steel Powder for Additive Manufacturing of Dispersion Strengthened Steels	Switzerland	Metals	Uploaded
Microstructural Characterization of Fe-9Cr ODS Steel Produced via Selective Laser Melting - Thesis	Switzerland	Metals	Uploaded
A Study on the Thermal Conductivity of Proton Irradiated CVD-SiC and Sintered SiC, Measured Using a Modified Laser Flash Method with Multi-Step Machining	United Kingdom	Ceramics	Uploaded
High Temperature Spherical Nano-indentation of Graphite Crystals	United Kingdom	Graphite	Uploaded
Investigation of Size Effects in Test Methods Used for Irradiated and Oxidized Graphite	United Kingdom	Graphite	Uploaded
Evolution of the Microstructure of Superfine Grain Graphites Under Thermal Oxidation	United Kingdom	Graphite	Uploaded
Tensile and Fatigue Performance of Additive Manufactured 316L Austenitic Stainless Steel	United Kingdom	Metals	Uploaded
Characterisation Of Nano Structured Steels After High-Temperature Austenitisation	United Kingdom	Metals	Uploaded

Report Title	Country	Material	Upload Status
Post-Weld Heat Treatment Trials and Fracture Behaviour of Electron-Beam Welded SA508 Low Alloy Steels	United Kingdom	Metals	Uploaded
Mechanical Performance of PM/HIP Type 316L Austenitic Stainless Steels	United Kingdom	Metals	Uploaded
Development of Standardized Test Methods, Design Codes and Databases for SiC/SiC Components in Next Generation Nuclear Power Plant Systems	United States	Ceramics	Uploaded
Summary of SiC Tube Architecture and Fabrication	United States	Ceramics	Uploaded
Summary of Testing Plans for Failure Mode Assessment of Composite Tubes under Stress	United States	Ceramics	Uploaded
Continuous SiC Fiber, CVI SiC Matrix Composites For Nuclear Applications: Properties And Irradiation Effects	United States	Ceramics	Uploaded
Progress Of Codes And Standards Development For Nuclear Applications Of Ceramic Composite Materials	United States	Ceramics	Uploaded
FY17 Progress Report on ASME Design Code Development for Composite Core Components for High Temperature Reactors	United States	Ceramics	Uploaded
Status of ASME Design Code Development for Composite Core Components for High Temperature Reactors	United States	Ceramics	Uploaded
Experimental Plan and Final Design Report for HFIR High Temperature Graphite Irradiation Capsules HTV-1 and -2	United States	Graphite	Uploaded
Status of the ASME Graphite Core Components Project Team's Activities	United States	Graphite	Uploaded
Status of Development of ASTM D02. F Standard Test Method for Air Oxidation of Graphite	United States	Graphite	Uploaded
The U.S. Generation IV Implementation Strategy	United States	Graphite	Uploaded
Initial Post Irradiation Examination Data Report for SGL NBG-10 Nuclear Grade Graphite	United States	Graphite	Uploaded
Status of Initial Assessment of Physical and Mechanical Properties of Graphite Grades for NGNP Applications	United States	Graphite	Uploaded
Preliminary Design Report and Experimental Plan for HFIR Graphite Tensile Creep Capsule HGC-1	United States	Graphite	Uploaded
Final Post Irradiation Examination Data Report for SGL NBG-10 Nuclear Grade Graphite	United States	Graphite	Uploaded
Modeling the Multiaxial Failure Probability of Nuclear Grade Graphite	United States	Graphite	Uploaded
NGNP Graphite Selection and Acquisition Strategy	United States	Graphite	Uploaded

Report Title	Country	Material	Upload Status
Irradiation Induced Creep in Graphite at High Temperature and Dose – A Revised Model	United States	Graphite	Uploaded
AGC-1 Sister Specimen Testing Data Report	United States	Graphite	Uploaded
The Biaxial Strength of Grade NBG-18 Graphite	United States	Graphite	Uploaded
Modeling the Tensile Strength of Grade NBG-18 Graphite	United States	Graphite	Uploaded
Characterization of Porosity Development in Oxidized Graphite Using Automated Image Analysis Techniques	United States	Graphite	Uploaded
NBG-18 Baseline Characterization: Billet 6022 635 6 Flexure Strength	United States	Graphite	Uploaded
Biaxial Strength Testing of NBG-18 Graphite in the Fourth Stress Quadrant	United States	Graphite	Uploaded
Modeling the Biaxial Failure of NBG-18 Graphite in the First and Fourth Stress Quadrants	United States	Graphite	Uploaded
Post-Irradiation Examination Data for PCEA Graphite Irradiated at 900°C in HFIR	United States	Graphite	Uploaded
Research Needs and Test Plan for Characterization of Nuclear Graphite Oxidation	United States	Graphite	Uploaded
AGC-1 Post-Irradiation Examination Status	United States	Graphite	Uploaded
AGC-1 Pre-Irradiation Data Report Status	United States	Graphite	Uploaded
Carbon Characterization Laboratory Readiness to Receive Irradiated Graphite Samples	United States	Graphite	Uploaded
Research Needs and Test Plan for Characterization of Nuclear Graphite Oxidation	United States	Graphite	Uploaded
Characterization of Porosity Development in Oxidized Graphite using Automated Image Analysis Techniques	United States	Graphite	Uploaded
Initial Tests for Determination of Nuclear Graphite Oxidation Kinetics in Conditions Relevant to VHTR Normal Operation	United States	Graphite	Uploaded
Microstructure Effect on Air Oxidation Behavior of Three Nuclear Grade Graphite Materials: NBG-18, PCEA, and IG-110	United States	Graphite	Uploaded
Note on Graphite Oxidation by Oxygen and Moisture	United States	Graphite	Uploaded
Effect of Air Oxidation on Pore Structure Development and Mechanical Properties of Nuclear Graphite	United States	Graphite	Uploaded
Status Letter Report on ASTM Activities on Standard Method for Graphite Oxidation	United States	Graphite	Uploaded
Status of Development of ASTM D02. F Standard Test Method for Air Oxidation of Graphite	United States	Graphite	Uploaded
Accelerated Oxidation Studies of PCEA Nuclear Graphite by Low Concentration of Water and Hydrogen in Helium	United States	Graphite	Uploaded

Report Title	Country	Material	Upload Status
Status of Diffusion-Controlled Graphite Oxidation Studies for High Temperature Gas-Cooled Reactors	United States	Graphite	Uploaded
AGC-1 Specimen Pre-irradiation Data Report	United States	Graphite	Uploaded
AGC-1 Specimen Post-Irradiation Data Report	United States	Graphite	Uploaded
AGC-2 Characterization Plan	United States	Graphite	Uploaded
AGC-2 Graphite Preirradiation Data Analysis Report	United States	Graphite	Uploaded
AGC-3 Graphite Specimen Preirradiation Characterization Plan	United States	Graphite	Uploaded
AGC-3 Graphite Preirradiation Data Analysis Report	United States	Graphite	Uploaded
AGC-1 Irradiation Creep Strain Data Analysis	United States	Graphite	Uploaded
AGC-4 Graphite Preirradiation Data Analysis Report	United States	Graphite	Uploaded
Kinetics of Chronic Oxidation of NBG-17 Nuclear Graphite by Water Vapor	United States	Graphite	Uploaded
Water Vapor Transport In Nuclear Graphite	United States	Graphite	Uploaded
THE ANALYSIS OF RESULTS FROM 3-POINT FLEXURE TESTING OF IRRADIATED AGC-1 GRAPHITE CREEP SPECIMENS	United States	Graphite	Uploaded
AGC-1 Experiment and Final Preliminary Design Report	United States	Graphite	Uploaded
A Revised AGC-1 Creep Capsule Layout	United States	Graphite	Uploaded
Status of Chronic Oxidation Studies of Graphite	United States	Graphite	Uploaded
AGC-4 Graphite Specimen Preirradiation Characterization Plan	United States	Graphite	Uploaded
AGC-2 Graphite Specimen Postirradiation Characterization Plan	United States	Graphite	Uploaded
Data Compilation for AGC-2 Matrix-only Compact Lot A3-H08	United States	Graphite	Uploaded
Data Compilation for AGC-2 Matrix-only Compact Lot A3-P33	United States	Graphite	Uploaded
Data Compilation for AGC-2 Matrix-only Compact Lot A3-P43	United States	Graphite	Uploaded
AGC-2 Specimen Post-Irradiation Data Package Report	United States	Graphite	Uploaded
The Shear Fracture Toughness (KIIc) of Graphite	United States	Graphite	Uploaded
The Fracture Toughness of Nuclear Graphite Grades	United States	Graphite	Uploaded
AGC-2 Irradiated Material Properties Analysis	United States	Graphite	Uploaded
Grade 2114: Flexure Strength and Elastic Properties	United States	Graphite	Uploaded
Grade 2114: Preliminary Report of Selected Elastic and Mechanical Properties	United States	Graphite	Uploaded
Mersen Grade 2114: A Comparison of Tensile Strength Data	United States	Graphite	Uploaded
Mersen Grade 2114: Tensile Strength from Brazillian Disc Testing	United States	Graphite	Uploaded

Report Title	Country	Material	Upload Status
NGNP Graphite Testing and Qualification Specimen Selection Strategy	United States	Graphite	Uploaded
USDOE ART PROGRAM: Graphite - Selection and Acquisition Strategy	United States	Graphite	Uploaded
Oxidation Kinetics by Water Vapor of Nuclear Graphite Grade 2114	United States	Graphite	Uploaded
Oxidation of Matrix Material in Helium with Varied Moisture Content	United States	Graphite	Uploaded
Validation of Wichner Predictive Model for Chronic Oxidation by Moisture of Nuclear Graphite	United States	Graphite	Uploaded
Impact of Deformation Mechanism Transition on Creep Behavior of Alloy 617	United States	Metals	Uploaded
Gen IV Materials Handbook Architecture and System Design	United States	Metals	Uploaded
Initial Development in Joining of ODS Alloys Using Friction Stir Welding	United States	Metals	Uploaded
Interim Development of Simplified Methods for Very High Temperature Metallic Design	United States	Metals	Uploaded
Kinetics of Gas Reactions and Environmental Degradation in NNGNP Helium	United States	Metals	Uploaded
Next Generation Nuclear Plant Materials Research and Development Program Plan	United States	Metals	Uploaded
Preliminary Issues Associated with the Next Generation Nuclear Plant Intermediate Heat Exchanger Design	United States	Metals	Uploaded
Preliminary Materials Selection Issues for the Next Generation Nuclear Plant Reactor Pressure Vessel	United States	Metals	Uploaded
Summary Report on FY 2008 Gen IV Materials Handbook Development	United States	Metals	Uploaded
Status of ASME Subsection NH	United States	Metals	Uploaded
Status of Centralized Environmental Creep Testing Facility Preparation and Upgrade	United States	Metals	Uploaded
Status of Testing and Characterization of CMS Alloy 617 and Alloy 230	United States	Metals	Uploaded
Status of the Development of Simplified Methods and Constitutive Equations	United States	Metals	Uploaded
A Review of Aging Effects in Alloy 617	United States	Metals	Uploaded
Initiation of Scoping Tests to Provide Time-Dependent Input for HTDM Constitutive Equation Development	United States	Metals	Uploaded
Preliminary Assessment of Required Modeling in Oxide Dispersion Strengthened Steels for GEN-IV Applications	United States	Metals	Uploaded

Report Title	Country	Material	Upload Status
Preliminary Comparison of Reaction Rate Theory and Object Kinetic Monte Carlo Simulations of Defect Cluster Dynamics under Irradiation	United States	Metals	Uploaded
Summary of Studies of Aging and Environmental Effects on Inconel 617 and Haynes 230	United States	Metals	Uploaded
Initial Development of the Gen IV Materials Handbook	United States	Metals	Uploaded
Gen IV Materials Handbook Implementation Plan	United States	Metals	Uploaded
Gen IV Materials Handbook GIF Release for Architecture and Functionality Demonstration	United States	Metals	Uploaded
Assessment of Negligible Creep, Off-Normal Welding and Heat Treatment of Gr91 Steel for Nuclear Reactor Pressure Vessel Application	United States	Metals	Uploaded
Thermophysical Properties of Alloy 617 from 25°C to 1000°C	United States	Metals	Uploaded
The Development of Microstructural Damage During High Temperature Creep-Fatigue of A Nickel Alloy	United States	Metals	Uploaded
Operating Condition Allowable Stress Values in ASME Section III Subsection NH	United States	Metals	Uploaded
Regulatory Safety Issues in the Structural Design Criteria of ASME Section III Subsection NH	United States	Metals	Uploaded
Improvement of ASME NH for Grade 91 Negligible Creep and Creep Fatigue	United States	Metals	Uploaded
Creep-Fatigue Data and Existing Evaluation Procedures for Grade 91 and Hastelloy XR	United States	Metals	Uploaded
Verification of Allowable Stresses in ASME Section III Subsection NH for Grade 91 Steel	United States	Metals	Uploaded
Verification of Allowable Stresses in ASME Section III Subsection NH for Alloy 800H	United States	Metals	Uploaded
ASME Code Considerations for the Intermediate Heat Exchanger (IHX)	United States	Metals	Uploaded
Update and Improve Subsection NH –Alternative Simplified Creep-Fatigue Design Methods	United States	Metals	Uploaded
New Materials for ASME Subsection NH	United States	Metals	Uploaded
Non Destructive Examination (NDE) and In-Service Inspection (ISI) Technology for High Temperature Reactors	United States	Metals	Uploaded
Roadmap to Develop ASME Code Rules for the Construction of High Temperature Gas Cooled Reactors (HTGRS)	United States	Metals	Uploaded
Creep Rupture Testing of Alloy 617 Base Metals and Weldments	United States	Metals	Uploaded
Creep-Fatigue Interaction Diagram for Alloy 617 in Air at 950°C	United States	Metals	Uploaded

Report Title	Country	Material	Upload Status
Verification of Allowable Stresses in ASME Section III Subsection NH for Alloy 800H	United States	Metals	Uploaded
Extend Allowable Stress Values for Alloy 800H	United States	Metals	Uploaded
ASME Code Considerations for the Intermediate Heat Exchanger (IHX)	United States	Metals	Uploaded
Creep and Creep-fatigue Crack Growth at Structural Discontinuities and Welds	United States	Metals	Uploaded
Update and Improve Subsection NH-Simplified Elastic and Inelastic Design Analysis Methods	United States	Metals	Uploaded
Update and Improve Subsection NH – Alternative Simplified Creep-fatigue Design Methods	United States	Metals	Uploaded
New Materials for ASME Subsection NH	United States	Metals	Uploaded
Non Destructive Examination (NDE) and In-service Inspection (ISI) Technology for High Temperature Reactors	United States	Metals	Uploaded
Roadmap to Develop ASME Code Rules for the Construction of High Temperature Gascooled Reactors (HTGRs)	United States	Metals	Uploaded
Code Comparison Report for Class 1 Nuclear Power Plant Components	United States	Metals	Uploaded
The Effect of Weldments on the Creep and Creep-Fatigue Behavior of Alloy 617	United States	Metals	Uploaded
Creep and Creep-Fatigue of Alloy 617 Weldments	United States	Metals	Uploaded
Low Cycle Fatigue of Alloy 617 at 850°C and 950°C	United States	Metals	Uploaded
Calculation of Creep-Fatigue for Division 5 Class A Components at Elevated Temperature Service Using Elastic-Perfectly Plastic Analysis	United States	Metals	Uploaded
Satisfaction of Strain Limits for Division 5 Class A Components at Elevated Temperature Service Using Elastic-Perfectly Plastic Analysis	United States	Metals	Uploaded
Simplified Methods	United States	Metals	Uploaded
Draft ASME Boiler and Pressure Vessel Code Case for Use of Alloy 617 for Class A Elevated Temperature Service Construction	United States	Metals	Uploaded
Background Technical Justification Stress and Thermal Props HB A and HC A	United States	Metals	Uploaded
CASE N-XXX: USE OF ALLOY 617 (UNS N06617) FOR CLASS A ELEVATED TEMPERATURE SERVICE CONSTRUCTION SECTION III, DIVISION 5	United States	Metals	Uploaded
Case N-XXX: Use of 52Ni–22Cr–13Co–9Mo, Alloy 617 (UNS N06617) for Low Temperature Service Construction Section III, Division 5	United States	Metals	Uploaded

Report Title	Country	Material	Upload Status
HBB-3225-1 TENSILE STRENGTH VALUES, S_u , FOR ALLOY 617 AND HBB-I-14.5 YIELD STRENGTH VALUES, S_y , FOR ALLOY 617	United States	Metals	Uploaded
ALLOWABLE STRESS VALUES	United States	Metals	Uploaded
Report on FY15 Alloy 617 SMT Creep-Fatigue Test Results	United States	Metals	Uploaded
Report on FY15 Two-Bar Thermal Ratcheting Test Results	United States	Metals	Uploaded
Procurement and Initial Characterization of Alloy 230 and CMS Alloy 617	United States	Metals	Uploaded
Gen IV Materials Handbook Beta Release For Structural and Functional Evaluation	United States	Metals	Uploaded
Draft ASME Boiler and Pressure Vessel Code Cases and Technical Bases for Use of Alloy 617 for Constructions of Nuclear Component Under Section III, Division 5	United States	Metals	Uploaded
A Viscoplastic Model for Alloy 800H for Use with the Section III, Division 5 Design by Inelastic Analysis Methods for Class A Components	United States	Metals	Uploaded
Design Charts for an Integrated Creep-fatigue Damage Evaluation Approach	United States	Metals	Uploaded
An Initial Assessment of the Creep-Rupture Strengths for Weldments with Alloy 800H Base Metal and Alloy 617 Filler Metal	United States	Metals	Uploaded
An Experimental and Analytical Study on the Development of Extrapolation Method for the Creep-Fatigue Life of Alloy 617 to Low Strain Ranges and Long Hold Times at 950°C	United States	Metals	Uploaded
Experimental Basis for The Extension of Elastic Perfectly Plastic Strain Limits Evaluation Procedure of ASME Section III, Division 5 Code Case N-861 to Grade 91, Alloy 800H and 2.25Cr-1Mo	United States	Metals	Uploaded
Technical Background for the Update and Extension of the Time-Dependent Allowable Stresses of Type 304H and 316H Stainless Steels	United States	Metals	Uploaded
ASME Code Revisions to Incorporate 316H and Alloy 617 Viscoplastic Constitutive Models to Section III, Division 5 and Code Case N-898	United States	Metals	Uploaded
Experimental Determination of Constitutive Response of Alloy 800H in Support of Viscoplastic Constitutive Model Development for ASME Section III, Division 5, Class A Applications	United States	Metals	Uploaded

Report Title	Country	Material	Upload Status
Initial Development of Viscoplastic Constitutive Model of Alloy 800H in Support of the Use of Inelastic Analysis Methods for ASME Section III, Division 5, Class A Applications	United States	Metals	Uploaded
FY-23 Status Report on the Development of New ASME Section III, Division 5 Class B Rules	United States	Metals	Uploaded
Report on FY 2023 Research and Development on Specially Designed Creep-fatigue Experiments on Alloy 617 in Support of Improving Creep-fatigue Evaluation Approaches	United States	Metals	Uploaded
I-US-00147	United States	Metals	Uploaded
Assessment of UTP A 2133 Mn as a Matching Filler Metal for Alloy 800H in Section III, Division 5 Applications	United States	Metals	Uploaded
Results of FY 2023 Alloy 617 and Alloy 709 High-Temperature Crack-Growth Testing	United States	Metals	Uploaded
Summary Report on Out-Of-Pile Components: Insulating Materials and Structures	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Control Rods (I)	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Control Rods (II)	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Internal Structures	VHTR	Ceramics	Uploaded
Summary Report on Codes and Standard Development	VHTR	Ceramics	Uploaded
Summary Report on Materials Database	VHTR	Ceramics	Uploaded
Summary Report on Out-Of-Pile Components: Insulating Materials and Structures for CWG	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Control Rods for CWG(I)	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Control Rods for CWG(II)	VHTR	Ceramics	Uploaded
Summary Report on In-Pile Components: Internal Structures for CWG	VHTR	Ceramics	Uploaded
Summary Report on Codes and Standard Development for CWG	VHTR	Ceramics	Uploaded
Summary Report on Materials Database for CWG	VHTR	Ceramics	Uploaded
Summary of US DOE R&D Activities on Graphite Oxidation (2006–2021)	VHTR	Graphite	Uploaded
Task 1.3 Graphite Fracture	VHTR	Graphite	Uploaded
Alloy 617 ASME Boiler and Pressure Vessel Code Cases	VHTR	Metals	Uploaded

Report Title	Country	Material	Upload Status
Assessment of Creep Damage Models in the Prediction of High-Temperature Creep Behaviour of Alloy 617	VHTR	Metals	Uploaded
On the Kinetics of Gamma Prime (γ') Precipitation and its Strengthening Mechanism in Alloy 617 During a Long-Term Thermal Aging	VHTR	Metals	Uploaded
Assessment of Modelling Methodologies for Prediction of High-Temperature Creep-Fatigue Behaviour of Alloy 617	VHTR	Metals	Uploaded
Materials Modeling - A Key for the Design of Advanced High Temperature Reactor Components	VHTR	Metals	Uploaded
Creep And Creep-Rupture Of Alloy 617	VHTR	Metals	Uploaded
Demonstration of HLD Report Information Organization	VHTR		Uploading