

## SUBJECT INDEX



# Fusion Science and Technology

Volume 62, Number 1

July/August 2012

CITATIONS ARE BY PAGE NUMBER

9-finger module, 134

### A

Activation, 180

nuclear data for H/D/alpha, 276

Adsorption, 71

### B

Beryllium, 1, 9, 16, 180

Blanket, 21

functional materials, 210  
structural materials, 210

Boron carbide coating, 46

Breeding technology, 77

Broader Approach, 210, 219

### C

Carbon, 61

impurity, 139

Catalyst, 83

CFC, 1

Chemical composition, 180

Cluster dynamics, 139

Coated window, 204

Convection loop, 295

Convective heat transfer, 164

Creep, 122

Cryogenic temperature, 71

### D

DCLL Blanket, 190

DEMO, 89, 190

Detritiation, 83

Deuterium retention, 66

Deuteron accelerator, 252

DFLL-TBM, 157

Diagnostic, 39

Diagnostic mirrors, 97

Diagnostics, 89

Dielectric mirrors, 104

Diffusion, 56

Disproportionation, 50

Disruptions, 16

Divertor, 129

components, 110

Dust, 39

### E

EAST, 9

Electrolytes, 129

Electroplating, 129

### F

Fatigue, 122

Ferritic/Martensitic Steel, 145

First wall (FW), 21, 116

blanket, 34

mock-up, 29

Flow channel insert, 157

Fluid-dynamics test, 164

Fluidization, 150

Fusion

materials testing, 289

reactor, 150, 272, 283

### G

Gap retention, 61

Getter bed, 50

Glow discharge cleanings, 66

### H

HCLL TBM, 196

Heat-transfer, 150

HEBT, 226

Helium-cooled divertor, 134

HFTM, 246

High heat flux

components, 122

test, 21, 134

Hydrogen

isotopes, 71

isotopes permeation, 204

peroxide solution, 185

### I

IFMIF, 226, 233, 240, 246, 258

IFMIF/EVEDA, 210, 219, 246, 252, 265

In situ experiment, 295

Insulators, 89

Interstitial loop, 139

Irradiated samples (Al<sub>2</sub>O<sub>3</sub>, Fe, CSi and SiO<sub>2</sub>), 276

ITER, 9, 21, 29, 39, 97, 104, 171

ITER-like Wall, 1

### J

Joining, 129

JT-60U, 61

### K

Korea heat load test facilities, 21

### L

Laser damage threshold, 104

Li<sub>0.17</sub>Pb<sub>0.83</sub> eutectic alloy, 56

LIPAC, 265

Liquid

breeder, 77

level sensor, 258

lithium, 204

lithium jet, 258

metal breeder, 171

Lithium-lead (LiPb), 196, 295  
blanket, 272  
experimental loops, 272  
Lithium orthosilicate (Li<sub>4</sub>SiO<sub>4</sub>), 185

## M

Magnetohydrodynamics, 157  
Manufacturing experiment, 116  
Material testing, 283  
Materials Test Station, 289  
McDeLicious, 226  
Mechanical properties, 145  
Methane, 83  
Mirror protection and recovery, 97  
Mock-up, 196  
Monte Carlo, 233  
Mordenite, 71

## N

Neutron  
irradiation, 145, 289  
irradiation facility, 219  
source, 233  
Neutronics, 233, 240, 265  
Nuclear components, 122  
Numerical simulation, 157

## O

Oxygen impurity, 66

## P

Packed-fluidization, 150  
Pebble, 185

Permeation sensor, 77  
Plasma  
facing components (PFC), 9  
facing materials, 9, 34  
spraying, 46  
wall interactions (PWI), 61  
Prototypes, 164

## R

Radiation  
damage, 89  
protection, 240, 265  
Reaction, 171  
Residual dose rates, 252  
Runaway electrons, 34

## S

Safety, 39  
SATIR, 134  
Slug-free, 150  
Solid Breeder, 185  
Spallation source, 289  
SPIDER, 164  
SSTT, 246  
Structural materials, 145

## T

Technofusion, 276  
Test blanket module (TBM), 29, 116,  
171  
DCLL, 190  
DFLL-TBM, 157  
HCLL, 196

TF coil radiation shielding, 190  
Thermal shock testing, 16  
Thermo-oxidation, 97  
Thomson scattering, 104  
Tritium, 50, 56, 61, 83, 295  
extraction, 77  
production rate, 196  
retention, 46  
sufficiency, 283  
Tungsten, 1, 9  
coating, 46  
Powder Injection Molding (W-PIM),  
110

## U

Uranium content, 180

## V

VDEs, 16

## W

Wetting process, 185

## Z

ZrCo, 50