

Subject Index

Volume 71 · Numbers 1, 2, 3, and 4
January, February, April, and May 2017

- 13X zeolite, 570
- Absorption, 363
- Accountancy, 600
- Activity concentration of H-3, 671
- ADVANTG, 162
- Affordability, 450
- Alloys, 555
- Aqueous effluent, 397
- BaInO_{2.5}, 344
- Beam-guiding system, 137
- Beta radiation, 281, 507
- Binary-collision approximation, 93
- Binding energy, 52
- BIXS, 485
- Boltzmann solver, 93
- Breeder unit, 357
- Calorimetry, 649
- Carbon, 584
- Catalytic isotope exchange, 207
- Cavities, 268
- Cement, 286
- Characterization, 403, 649
- Chemical composition analysis, 514
- Cleanup systems, 666
- Closed tritium cycle, 485
- Closed tritium loops, 231
- Cluster dynamics simulation, 84
- Combined electrolysis catalytic exchange, 241, 333
 process, 605
- Confinement, 251, 639
- Contamination prevention, 628
- Copper doping, 187
- Crops, 595
- Decontamination, 281
- DEMO, 261, 679
 breeding blanket, 261, 444, 537
- Depleted uranium, 416
- Design and fabrication, 450
- Desorption, 363
- Detritiation, 236, 241, 532, 590,
 654, 666
 plant, 605
- Deuterium, 432
 retention, 491
- Diagnostics, 196
- Differential scanning calorimetry, 363
- Dipicolinic acid, 496
- Dislocation, 7
- Dislocation loop punching, 1
- Dispersion modeling, 381
- Displacement chromatography,
 473, 644
- Disruption Mitigation System, 251
- Distillation, 326
- Divertor, 103, 110, 261
- DOE-STD-3009-2014, 381
- Dose conversion factor, 570
- Droplets, 575
- EAST, 144, 150
- Environmental tritium level, 339
- Equilibrium constants, 333
- Exchange, 241
- Extraction efficiency, 575
- Fast ion loss, 201
- Fluoride salt high temperature reactor, 549
- Fueling, 256
- Fusion, 679
 fuel cycle, 416, 457, 679
 material, 75
 science, 444
- Gas chromatography, 467
- Getters, 321, 628
- Grain boundaries, 36, 84
- HANARO, 622
- Heavy water, 605
- Helium, 7, 491
 bubbles, 1, 60, 122
 cluster dynamics, 22, 36
 implantation, 268
 in tungsten, 52
 plasma, 426
- Helium-3, 246, 610
- Helium-cooled pebble bed, 357
- HTR-10, 671
- Hydride storage, 565
- Hydrogen, 375
 absorption, 634, 660
 diffusivity, 344
 in tungsten, 52
 isotopes, 207, 369, 590
 retention, 122
- Hysteresis, 410
- ICRF, 144
- Immobilization, 286
- Impedance matching, 144
- Impurities, 321
- IR spectroscopy, 369
- Irradiation, 549
- Isotherm performance, 565
- Isotope effect, 634
- Isotopic exchange, 532
- Isotope separation, 225, 326, 432,
 473, 644
 system, 375
- ITER, 196, 215, 241, 457, 610
- JET, 457
- KATRIN, 231
- LANA.85, 565, 570
- Large Helical Device, 351
- Laser drivers, 137
- Leaching, 286
- Linear plasma device, 177
- Liquid-gas contactor, 520

- Liquid hydrogen isotopologues, 369, 375
- Liquid phase catalytic exchange, 432, 438
- Liquid scintillation, 496
- Lithium, 473, 501, 644
- Lithium-lead, 537, 575
eutectic alloy, 520
water-cooled, 444
- LLCB TBM, 391
- Low and high deuterium concentration, 207
- Luminescence, 496
- Maintenance, 422
- Mass spectroscopy, 467
- Mass transfer model, 438
- MCNP, 162
- Metal hydride, 410
- Microstructure, 187
- Mixed integer nonlinear programming, 296
- Model coupling, 93
- Modeling, 75, 432
multiscale, 22
- Molecular dynamics, 7, 36
- Molybdenum, 268, 491
- Multi-bed system, 296
- Multiple nozzle, 575
- Nanoparticles, 628
- Neutrino mass, 231, 485
- Neutrons, 196
damage, 491
irradiation, 305
reflectometry, 660
- Nitric acid treatment of SS316, 275
- Normetex, 478
- Nuclear decommissioning, 290
- Nuclear guarantees, 654
- Object kinetic Monte Carlo, 60
- Oil, 397
- Operating and tritium facilities, 316
- Organically bound tritium, 595
- Packing, 532
- Palladium, 555
- Parallel replica dynamics, 1
- Particle phase-space, 201
- Passivation, 403
- PbLi, 575
- PEEK, 507
- Pellet fueling, 251
- Permeation, 261, 357
- Permeator against vacuum, 537
- Personnel safety, 305
- Photomultiplier tube, 600
- Plasma-exposed tungsten, 84
- Plasma-facing components, 305
- Plasma-facing material, 52
- Plasma-induced decomposition, 426
- Plasma-material interactions, 177, 305
- Plasma-surface interactions, 22, 60, 122
- Polymer, 507
- Power recycling, 110
- Pressure-composition-temperature, 363
- Primary loop, 671
- Proton-conducting oxide, 344
- Proton exchange membrane, 281
- PTFE, 507
- Pump, 478
- Pumping, 256
- Purification, 316, 590
- Pyrolysis, 397
- Radiation activation, 215
- Radiation monitoring upgrade, 305
- Radioactive waste, 215
- Radiolysis, 549
- Recovery, 520
- RF voltage, 150
- Romania, 610
- Safety, 236, 422
- Salt coolants, 584
- Scintillation, 600
- Scrape-off layer, 103
- Secondary neutron source, 544
- Separation factors, 333
- Separations, 316
- Sheath, 103
- Simultaneous H, D, T measurement, 351
- Source and transport section, 231
- ST198, 321
- Standard, 639
- Surface treatment, 403
- Target area, 137
- TEACUP, 616
- Test blanket module, 514
- Thermal desorption spectroscopy, 351
- Thin films, 660
- Tokamak, 201
- Torus exhaust analysis, 467
- TPBAR, 616
- Transmission electron microscopy in situ, 268
- Transmission line, 150
- Tritiated hydrocarbon, 426
- Tritiated water, 496, 600
- Tritium, 236, 246, 251, 256, 261, 281, 305, 326, 422, 438, 450, 457, 478, 507, 549, 555, 570, 584, 600, 610, 622, 639, 649, 666
accountancy, 467, 654
aging, 565
analytics, 369, 375, 485
breeder, 520
determination, 290
enrichment, 450, 527
extraction system, 514, 527, 537
facilities, 687
handling, 687
imaging plate technique, 344
infrastructure, 687
laboratory safety, 305
mass balance, 391
measurement, 397
modeling, 357, 444
oxide source term, 381
permeation, 225, 391
plant, 679
processing, 231
production, 616, 628, 671
purification, 321
radioecology, 595
recovery, 514, 575
releases, 544
removal, 236, 501
residence time, 357
storage, 410
storage and delivery system, 296, 416, 622
supply, 316
surface inventories, 275
waste, 286

Tungsten, 351
 coatings, 187

UHMW-PE, 507

Uranium, 246

Vapor phase catalytic exchange, 333

Variance reduction, 162

Ventilation upgrade, 305

Vespel, 507

Wall stress, 410

Waste, 649

Waste characterization analysis,
 290

Water adsorption, 326

Water detritiation, 225

Yttrium, 501

Zeolites, 666

ZrCo getter bed, 527