

3. The Theses of Doctorate in 2022

- 1) Simulation of Cladding Steel Properties for CiADS Project.
Nadezda Korepanova
- 2) Studies on Ion Beam Extraction from High-intensity Highly Charged ECR Ion Sources and Space Charge Effect.
Shen Zhen
- 3) Study on Extraction System Dynamics of Heavy Ion Synchrotron.
Gao Yunzhe
- 4) Time Dependent Basis Light-front Quantization in Nonperturbative Quantum Electrodynamics.
Hu Bolun
- 5) Mass Measurements with the Rare-RI Ring for r-process Nuclei Around $A=123$.
Li Hongfu
- 6) In-beam γ -Ray Spectroscopy of the Neutron-rich Manganese Isotopes $^{63,65,67}\text{Mn}$.
Liu Xiaoyu
- 7) Preparation and Research of High Intensity High Charge State Cocktail Ion Beams.
Zhai Yuhan
- 8) Physical Design and Experiments Study on Compact Heavy-ion Linear Accelerator.
Kong Qiyu
- 9) Research on Structure and Mechanical Properties of Fuel Assembly for CiADS Lead Bismuth Fast Reactor.
Sheng Xin
- 10) The Study on the Two-plane Mutiturn Injection Scheme and the Collimation System for the Proton Beam in HIAF-BRing.
Zheng Wenheng
- 11) The Evolution Dynamics of Ultracold Neutral Plasmas.
Fang Feng
- 12) Theoretical Study of the Three-body Light Meson System.
Zhang Xu
- 13) Studies on Exotic Decay of the Extremely Proton-rich Nuclei $^{26,27}\text{P}$ And ^{27}S .
Shi Guozhu
- 14) The Carbon Isotope Fusion Reactions at Deep Sub-barrier Energies.
Wang Xinyu
- 15) Nucleon Structure in Basis Light-front Quantization.
Xu Siqi
- 16) Development and Application of the Multi-purpose Time Projection Chamber for Nuclear Astrophysics Experiments.
Zhang Zhichao
- 17) Comparative Study on LBE Corrosion Behaviour of SIMP, T91 And 316L Steels.
Ma Zhiwei
- 18) Study on the Preparation and Radiation Resistance of SiC Whiskers Toughened Al_2O_3 Matrix Composite Ceramics. ^1H
Niu Lijuan
- 19) Study on the High-Gain and Adjustable Standing-Wave Resonant Conditioning System For High-Power Coupler.
Lin Zeqiang
- 20) The Power Control of CiADS Subcritical Reactor Based on Beam Intensity.
Yin Kai
- 21) Physical Design and Key Issues Study of HIAF RFQ.
Wang Chao
- 22) Structure Optimization and Process Research of RF Electric Focusing CH-DTL.
Yu Peiyan
- 23) Research and Development of a No-insulation, Conduction-cooled HTS Dipole Magnet.
Du Zhuoyue
- 24) Production of High-intensity Highly Charged Ions and Studies on an Electrostatic Ion Trap.
Huang Wei

- 25) Key Technology Study of Superconducting Combined Multipoles for HIAF-HFRS.
Mei Enming
- 26) Research on the Key Technology of HIAF-BRing Fast Ramping Dipole Magnets.
Zhang Xiang
- 27) The Repair Kinetics of XRCC1 in DNA Lesions Induced by High-LET Heavy Ion Irradiation.
Liu Wenjing
- 28) Development of Novel IMS and Its Application on Mass Measurements of fp-shell Neutron-deficient Nuclei.
Zhang Min
- 29) Controlled Synthesis and Optical Properties of Elliptical Gold Nanowires.
Huang Kejing
- 30) Study on the Improvement of Current-Carrying Properties and Mechanism of YBCO and MgB₂ Superconducting Films by Heavy Ions Irradiation.
Liu Li
- 31) Single Ion Fabrication of Nanostructure and Its Application.
Zhao Jing
- 32) Theoretical Studies of Attosecond Transient Absorption Spectroscopy.
Wu Xiaoxia
- 33) Study Of Interaction Cross Sections for Neutron-Rich Carbon Isotopes.
Jin Shuya
- 34) Multi-scale Computational Simulation on Micro-structure Evolution of Irradiated RPV Model Alloy.
Li Jianyang
- 35) TCAD Simulation of Single Event Latch-up and Upset Effect in Finfet Devices.
Li Dongqing
- 36) Function of Lycium Barbarum Polysaccharide in Regulating Hepatic Glucose Production and Anti-diabetic Nephritis.
Wan Fengqi
- 37) Numerical Study on Turbulent Heat Transfer of Liquid Lead Bismuth Based on an Isotropic Four-Equation Model.
Su Xingkang
- 38) Research on the Instability of SRF Resonators Caused by Flashover on the Window of Pick-up Couple.
Liu Xinmeng
- 39) Experimental Study on Double Differential Thick Target Neutron Yields from ⁴He and ¹²C Induced Reaction and High Energy Neutron Transport in Beryllium.
Zhang Xin
- 40) Research of the Turn by Turn and Bunch by Bunch Beam Position Acquisition System Algorithm and Implementation for HIAF.
Ni Fafu
- 41) Research on Photonic Crystal Selective Emitter Based Thermophotovoltaic System.
Liu Jitao
- 42) Research on BPM Digital Signal Processing Algorithm for Heavy-ion Synchrotron.
Wei Xiaojuan
- 43) Meson Structure from Basis Light Front Quantization.
Lan Jiangshan
- 44) Application of GOM/PET Structure in Reverse Electrodialysis Field.
Dong Yuhua
- 45) Fabrication and Ionic Transport Properties of Polyimide Porous Membranes with Angstrom-scale Slit Channels.
Xu Guoheng
- 46) Study of Single Event Effects on Nanoscale Memory Device and Combinational Logic Device.
He Ze
- 47) Broadband Light Absorption and Application of Nanostructures Based on Ion Track Technology.
Huang Ran
- 48) Fabrication and Irradiation Resistance of ZrC/ZTA Ceramic Composites.
Li Shufen
- 49) Wnt/β-catenin Signalling Pathway is Involved in Regulating Carbon Ions to Overcome the Radioresistance of Quiescent HeLa Cells.
Zhang Jinhua

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- 50) Breeding of High-yield Lactic Acid Strains by Heavy Ion Beam Irradiation and Its Fermentation Technology.
Tian Xuejiao
 - 51) Study on Niobium Three Tin Coating Technology for Copper-based Superconducting RF Cavity.
Lu Ming
 - 52) Study on Bunched Ion Beam Cooling and EicC Beam Cooling Simulation.
Ma Fu
 - 53) Experimental Study of 70~100 MeV Proton Induced Reactions with ADS Key Materials of Copper, Lead, Bismuth and Thorium.
Liu Bingyan
 - 54) Design and Application of Hi'Beam Series Beam Monitoring System.
Zhang Honglin
 - 55) Research on Time Series Data Analysis and Storage of CAfe Control System.
Shen Wenwen
 - 56) Research and Design of Control System for Electron Cooler and Electron Target in HIAF.
Zhou Yunbin
 - 57) Research on Heat Transfer Characteristics of New Spallation Target Working Medium.
Qiang Chengwen