4. The Theses of Master in 2022

1) Basis Quantization Approach to the Hydrogen Atom System.
Li Tian
2) The Study of All-charm Tetraquark with Basis Light-Front Quantization(BLFQ).
Kuang Zhongkui
3) Histone Acetylation Induce by Ionizing Radiation Causes Chromatin Decondensation.
Shen Cheng
4) Study on the Modification of Graphene Gas Sensor by Highly Charged Ion Irradiation.
Ma Pengcheng
5) High-pressure Phase Transition of Pre-irradiated CeO_2 with Swift Heavy Ions.
Lan Jianxiong
6) Implementation of SPEXI Timing Board Driver and Its Application in CiADS.
Shen Guoqiang
7) The Application of PET Ion-track Etched Membrane on Separation and Purification of Traditional Chinese Medicine Water Extract.
Wang Xingfan
8) Probing Neutron-proton Effective Mass Splitting Using Heavy Ion Collisions.
Shu Jianbo
9) Electromagnetic form Factors of Lambda and Sigma in the Vector Meson Dominance Model.
Li Zhongyi
10) Theoretical Study of the Near-threshold Behavior and Oscillatory Behavior for the Time-like Form Factor of Octet Baryons.
Dai Anxin
11) Modeling and Calibration of the Magnetic Energy Spectrometer Used in the Experiment on the Interaction between Low-energy Ion Beam and Plasma.
Luo Xiahui
12) Fabrication and Performance of Nanofiltration Membrane Based on PET Ion Track Membrane.
Ma Shengming
13) Experimental Study on Dynamic Characteristics of Grain Ejection During Laser-driven Granular Cratering.
Zhou Maoji
14) The Function and Mechanism of Primary Cilia in Regulating Radiation Responses of Tumor Cells.
Ma Wei
15) Characterization of Probiotics and Its Application in Prevention and Adjuvant Carbon Ion Radiotherapy in Colon Cancer Mice Model.
Bai Jin
16) Ionizing Radiation Changes Moesin Expression in Glioblastoma and Affects Cell Proliferation and Metastasis.
Hu Xiaoli
17) Mechanism of LncRNA H19 Regulating Radiosensitivity of Colon Adenocarcinoma Cells.
Li Linying
18) Effects of Madrasin on the Radiosensitivity of Tumor Cells and Its Mechanism of Action.
Xu Caipeng
19) Design and Implementation of Key Hardware for HIAF Stochastic Cooling.
Zhang Zhaolong
20) Monte Carlo Study of Secondary Neutron Radiation in Heavy Ion Passive Beam Delivery System.
Huang Shengcong
21) Study on Flow Characteristics of Wire-wrapped Fuel Assembly in CiADS Based on Structured Mesh.
He Minghan
22) Design of Pulse Power Supply for Accelerator Based on Floating Topology.
Pu Jingtao
23) Research on MOSFET-Based Pulse Power Supply.
Ou Hengheng
24) Study on Electromagnetic Interference Characteristics of Accelerator Magnet Power Supply.
Guo Hongliang
25) Experimental Study of Compact Injector Based on Laser Ion Source and Its DTL Design.
Zhang Bo

26) Study on the Techniques Related to Dealing with the Uncertainty of Intensity Modulated Heavy-ion Radiotherapy.
Wang Wenyu

27) Fast Synthesis of Gold Nanostar SERS Substrates Based on Nuclear Track Membrane by One-step Method.
Qi Xinchang

28) Preliminary Analysis of High-energy Neutrons in CiADS Shielding Design.
Yan Jinhuang

29) Monte Carlo Simulation of CiADS Reactivity Measurement.
Li Xiang

30) Design of Big Data Platform for Accelerator Distribution Network.
Wang Dezhi

31) Design and Research of SIMS Magnetic Field Feedback Control System.
Wang Baojia

32) Defect Evolution and Mechanical Properties of 4H-SiC Irradiated by Multi Gradient High Energy Ions.
Lv Kangyuan

33) Design of 5 Gbps Data Serial Transmission Path in Monolithic Active Pixel Sensor.
Qu Xiangru

34) Plasma-assisted Preparation and Modification of Superconducting Radio Frequency Materials.
Zhu Tongtong

35) Research on Hardware of Data Acquisition System for Multi-channel Ionization Chamber Based on Zynq.
Liu Xiaotao

36) Phase Transition of the Alkaline Earth Fluorides under High Pressure.
Tian Cheng

37) Research on Real-time Processing Technology for in-beam PET of Heavy-ion Cancer Treatment.
Hu Minchi