



IEEE Transactions on Nuclear Science

A publication of the IEEE Nuclear and Plasma Sciences Society.

[VIEW THE TABLE OF CONTENTS](#)

TNS has committed to become a Transformative Journal under Plan S, meaning that authors will remain in **full compliance with Coalition S funder requirements** if they publish their research articles in TNS.

Features in This Issue

- Verification and Validation of ITER Interlock System Fast Architecture According to IEC 61508 Standard, 0.1109/TNS.2022.3224780, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=9963992>
- A Wideband 4-Phase Phase-Locked Loop for Single-Slope Ramp ADC in SCA ASIC, 10.1109/TNS.2023.3236338, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10015863>
- Calibration Facility for Detector Strings for the KM3NeT/ARCA Neutrino Telescope at the Capacity Laboratory, 10.1109/TNS.2023.3250483, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10056310>
- Using FPGA-Based AMC Carrier Boards for FMC to Implement Intelligent Data Acquisition Applications in MTCA Systems Using OpenCL, 10.1109/TNS.2023.3255554, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10065557>
- Geant4 Electron-Proton Integral Inelastic Cross Section Models, 10.1109/TNS.2023.3270482, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10108985>
- Design and Characterization of a Picosecond Timing ASIC in 55-nm CMOS, 10.1109/TNS.2023.3277522, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10129136>
- Front-End Electronics of CXPd for Measuring Transient X-Ray Sources, 10.1109/TNS.2023.3269091, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10130000>

arnumber=10111087

- Cosmic Muon Rates and Neutron Background in a Backpack Radiation Detection System, 10.1109/TNS.2023.3280634, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10138207>
- Needs, Trends, and Advances in Scintillators for Radiographic Imaging and Tomography, 10.1109/TNS.2023.3290826, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10168180>
- Crystal Growth, Density Functional Theory, and Scintillation Properties of TICaX (= Cl, Br, I), 10.1109/TNS.2023.3258065, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10073639>
- Solution-Processable AXY (A = PEA, BA; X = Pb, Sn, Cu, Mn; Y = Cl, Br, I) Crystals for High Light Yield and Ultrafast Scintillators, 10.1109/TNS.2023.3267636, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10103565>
- Large-Scale Detector Testing for the GAPS Si(Li) Tracker, 10.1109/TNS.2023.3291235, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10168972>
- Evaluation of the Single-Event-Upset Vulnerability for Low-Energy Protons at the 7- and 5-nm Bulk FinFET Nodes, 10.1109/TNS.2023.3246085, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10047981>
- High-Energy Proton and Atmospheric-Neutron Irradiations of SiC Power MOSFETs: SEB Study and Impact on Channel and Drift Resistances, 10.1109/TNS.2023.3267144, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10102503>
- Study of Proton-Induced Defects in 40-nm CMOS SPADs, 10.1109/TNS.2023.3257740, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10070803>
- 14 Years of In-Flight Experimental Data on CARMEN-MEX, 10.1109/TNS.2023.3246733, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10049273>
- Total-Ionizing-Dose Effects at Ultrahigh Doses in AlGaIn/GaN HEMTs, 10.1109/TNS.2023.3237179, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10017248>
- Multilayer Perceptron Model Versus Charge Comparison Method for Neutron/Gamma Discrimination in Plastic Scintillator According to Sampling Frequency and Energy Radiation, 10.1109/TNS.2023.3295810, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10184489>
- A Compact Front-End Circuit for a Monolithic Sensor in a 65-nm CMOS Imaging Technology, 10.1109/TNS.2023.3299333, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10196055>

- Low-Temperature Annealing of Electron, Neutron, and Proton Irradiation Effects on SiC Radiation Detectors, 10.1109/TNS.2023.3307932, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10227313>
- A -Ray Detector Based on a 3" LaBr:Ce:Sr Crystal With SiPM Readout for 80 keV–16 MeV Energy Range With Position Sensitivity for Doppler Correction, 10.1109/TNS.2023.3312424, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10243063>
- One- and Two-Pole Compensation of Charge- Sensitive Amplifiers With Resistive Feedback to Improve the Energy Resolution in GRETA, 10.1109/TNS.2023.3316921, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10255599>
- Development of a 128-channel Readout System for a Multi-strip Ionization Chamber in PREF, 10.1109/TNS.2023.3321711, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10271711>
- MiniCACTUS: A 65 ps Time Resolution Depleted Monolithic CMOS Sensor, 10.1109/TNS.2023.3325947, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10287995>
- Characterization and simulation of terrestrial neutron induced destructive single-event effects in Gallium Nitride (GaN) power devices, 10.1109/TNS.2023.3316930, <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=10254566>

[T-NS Home](#)

[T-NS in IEEE Xplore](#)

[Early Access](#)

[Manuscript Submission](#)

[View the full series on IEEE Xplore.](#)



© {{my.copyright year:default=edit me}}
IEEE— All rights reserved.

[Website](#) | [Privacy Policy](#) | [Unsubscribe](#)

