



G&E TANDEMS LLC

1.7 MV Tandetron

General Ionex Tandem Accelerator System — Available Now



1.7 MV
TERMINAL VOLTAGE

H → Au
ION SPECIES RANGE

3
BEAMLINES

2
ION SOURCES

2 MV
HIGHEST STABLE V

System Overview

Complete 1.7 MV Tandetron tandem accelerator system manufactured by General Ionex (now HVEE). The Cockcroft-Walton multiplier was recently serviced and upgraded RF driver oscillators. The system was disassembled in operational condition with thorough documentation of all components, connections, and configurations.

ION SOURCES

NEC Alphasross (RF charge exchange) and General Ionex cesium sputter source, covering light gas species through heavy metals.

PERFORMANCE

Highest stable voltage: 2 MV. Voltage range: 18 kV – 2 MV. Beam currents from fA (He) to >400 nA (Cu).

Beamline Configurations

RBS — RUTHERFORD BACKSCATTERING

Configured for elemental depth profiling and thin film composition analysis.

PIXE — PARTICLE-INDUCED X-RAY EMISSION

Trace element analysis with ppm-level sensitivity across the periodic table.

5-AXIS MICROPROBE

Focused beam analysis with multi-axis sample manipulation for spatially resolved measurements.

DOCUMENTATION & PROVENANCE

Full lifetime operation logs, original engineering documentation, and direct contact with both former operators maintained.

Interested? [Let's talk.](#)

enzo@getandems.com

(860) 391-1110

ACCELERATOR SPECIFICATIONS

Manufacturer	General Ionex (now HVEE — High Voltage Engineering Europa)
Type	Tandatron — Tandem Electrostatic Accelerator
HV Generator	Cockroft-Walton Multiplier, 1.7 MV rated (recently re-gapped & RF oscillators upgraded)
Terminal Voltage	18 kV – 2 MV (highest stable achieved)
Ion Species	H through Au
Beam Current	fA (He) to >400 nA (Cu)
Ion Source 1	NEC Alphatross — RF charge exchange source
Ion Source 2	General Ionex Cesium Sputter Source
Beamlines	RBS, PIXE, and 5-Axis Microprobe
Insulating Gas	SF ₆
Condition	Disassembled from operational state; will require recommissioning
Documentation	Complete lifetime logs, original engineering docs, operator contacts



1.7 MV accelerating column after successful extraction from SF₆ pressure vessel

PURCHASE OPTIONS

Available as a **complete system**, as individual **subsystems** (ion sources, beamlines, HV generator, vacuum components), or as **individual parts**. Contact us for pricing and availability.

CONSULTING & SUPPORT

Installation and consulting available. We maintain deep hands-on knowledge of every component in the system, having personally disassembled the entire accelerator.

CONDITION NOTE

This system was disassembled while in operational condition. Recommissioning work will be required. All components were carefully documented and preserved during removal. Deteriorated components will be replaced.

EXPLORE



CUTAWAY RENDERING



EXTERIOR RENDERING



FULL WALKTHROUGH



G&E Tandems LLC

Email: enzo@getandems.com

Phone: (860) 391-1110

Contact for Pricing

System • Subsystems • Individual Components