

NEUTRON GENERATOR BASED ON NTG-2M TYPE SMALL-SIZED NEUTRON TUBE AREAS OF APPLICATION



Areas of Application

The generator is to be used for pulsed neutron logging of wells while exploring and controlling the extraction of mineral resources from oil and gas deposits

Specification

Maximum energy of neutrons, MeV	14
Maximum activity of tritium, GBq	488.4
Minimum average neutron yield, s ⁻¹ :	
after manufacture	2 × 10 ⁸
after 200 hour operation	5 × 10 ⁷
Frequency of neutron bursts, kHz	0.05–20
Acceleration voltage, kV	100
Minimum longitudinal magnetic field, mT	20
Cathode glow voltage of ion source, V	1
Ion source B-supply pulse amplitude, V	<500
Voltage of deuterium-tritium mix storage heater, V	<6
Power consumption, W	<35
Operating temperature, K	283–423
Dimensions, mm:	
maximum tube diameter (without magnet)	29
high-voltage electrode diameter	19
length	155
Service life, years	2
Term of operation, hours	200

Advantages

This generator surpasses the TNT-1411 tube-based neutron generators manufactured in Russian Federation

Stage of Development. Suggestions for Commercialization

IRL4, TRL4
Prototype manufacture and tests in customer's operating environment are provided upon request

IPR Protection

IPR1

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