

Joint Institute for Nuclear Research Frank Laboratory of Neutron Physics



Neutron Imaging @ IBR-2 Pulsed Reactor: First Results and Neutron Imaging Instrument Project G.D. Bokuchava, D.P. Kozlenko, A.M. Balagurov, B.N. Savenko

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### IBR-2 – fast pulsed reactor in Dubna, FLNP JINR







# First neutron imaging experiments with CCD camera (Beamline 12, IBR-2 reactor)

## Automotive spark plug





### CCD Camera VIDEOSCAN-11002

### AA size battery



15 mm





### Electric switch with cable





# First neutron imaging experiments with CCD camera (Beamline 12, IBR-2 reactor)

#### Regular bimetallic adapter (zirconium-steel) for RBMK type nuclear power reactor



Kursk nuclear power station: power - 4000 MW, 4 power units of RBMK-1000 type



Bimetallic steel-zirconium adapter on HRFD neutron diffractometer



Cross section A-B is most susceptible to fracture



#### Part of bimetallic adapter

#### Neutron images in two projections

### FSD – Fourier Stress Diffractometer at the IBR-2 pulsed reactor (JINR, Dubna)



### Основные узлы дифрактометра ФСД

