

Operation of the ESR (GSI, Darmstadt) at the Transition Energy, A. DOLINSKII, A. VALKOV, INR, Kiev, Ukraine; H. EICKHOFF, B. FRAN CZAK, B. FRANZKE, GSI, Darmstadt, Germany - For the precise mass determination of rapidly decaying nuclei the Experimental Storage Rings (ESR) of the GSI can be used as an energy isochronous time-of-flight (TOF) mass spectrometer. A new operation mode of the ESR at the transition energy was investigated. The 'isochronous' mode (when $\gamma(\text{tr}) = \gamma(\text{rel})$) was obtained by increasing the average dispersion function in the dipole magnets up to 17.2 m and tested for different ions using the electron cooling.