LARGE AREA TOF-WALL FOR THE R3B EXPERIMENT AT FAIR: R&D AND RESULTS WITH PROTOTYPES

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The large-area ToF-Wall is proposed for an high resolution time-of-flight (ToF) measurement of charged particles and ions in the future experiment R3B (Reactions with Relativistic Radioactive Beams) at FAIR. The main requirements of such a detector are to cover the full acceptance of the charged particles and ions produced in relativistic heavy-ions collisions while providing a time-of-flight resolution such that isotopes around mass 200 could be isotopically resolved. RPCs (Resistive Plate Chambers) are chosen for its properties as a solution for the construction of the ToF-Wall. In this work we present the last results of experiments performed with heavy ions to test prototypes of RPCs we have constructed.