

STELLARATOR-TYPE MAGNETIC SYSTEM
FOR A RESEARCH FUSION REACTOR

V. G. Kotenko, S. S. Romanov, N. T. Besedin

National Science Center "Kharkov Institute
of Physics and Technology", Institute of Plasma Physics
(1, Academichna Str., Kharkiv 61108, Ukraine)

S u m m a r y

To create the plasma confinement region in a research fusion reactor (RFR), the possibility of using a toroidal magnetic field formed in the $l = 2, m = 1$ torsatron along with a reversed additional longitudinal magnetic field is shown. The principal difference of RFR from existing designs is the greater distance between the plasma confinement region and the 1st wall, $r_{p1}/r_w \ll 1$.