

A magnetic mirror machine (2100; 2200; 3100; 3200) for plasma confinement comprises a plurality of longitudinally disposed superconductor coils (2104, 2105, 2106a, 2106b) arranged for producing an open-field-line plasma confinement area (2106), said plasma confinement area (2106) at each of two ends being limited by a respective mirror area (2108) of increased magnetic flux density relative to a central area (2110) of said plasma confinement area (2106), wherein a superconductor coil (2105, 2106a, 2106b) of said plurality of superconductor coils is located adjacent to said mirror area (2108) and said superconductor coil (2105, 2106a, 2106b) has a cross-section, in a plane intersecting a magnetic field line (2112) through said mirror area, having an elongate shape in a direction along said magnetic field line (2112).