formation sections, and first and second mirror plugs position between the first and second formation sections and the first and second divertors,

a gettering system coupled to the confinement chamber and the first and second divertors,

one or more biasing electrodes for electrically biasing open flux surface of a generated FRC, the one or more biasing electrodes being positioned within one or more of the confinement chamber, the first and second formation sections, and the first and second divertors,

two or more saddle coils coupled to the confinement chamber, and

a CT injector coupled to the confinement chamber.

20. The system of claim 19 wherein the system is configured to generate an FRC and maintain the FRC at or about a constant value without decay while neutral atom beams are injected into the FRC.

21. The system of claim 19 wherein the mirror plug comprises third and fourth set of mirror coils between each of the first and second formation sections and the first and second divertors.

22. The system of claims 19 and 20 wherein the mirror plug further comprises a set of mirror plug coils wrapped around a constriction in the passageway between each of the first and second formation sections and the first and second divertors.

23. The system of claims 19-22 wherein the formation systems are pulsed power formation systems.

24. The system of claims 19-23 wherein the formation systems comprise a plurality of power and control units coupled to individual ones of a plurality of strap assemblies to energize a set of coils of the individual ones of the plurality of strap assemblies wrapped around an elongate tube of the first and second formation sections.

25. The system of claim 24 wherein the elongate tube is a quartz tube with a quartz liner.

26. The system of claim 24 wherein individual ones of the plurality of power and control units comprising a trigger and control system.

27. The system of claim 26 wherein the trigger and control systems of the individual ones of the plurality of power and control units being synchronizable to enable static FRC formation wherein the FRC is formed and then injected or dynamic FRC formation wherein the FRC is formed and translated simultaneously.

28. The system of claims 19-27 wherein the plurality of neutral atom beam injectors comprises one or more RF plasma source neutral atom beam injectors and one or more arc source neutral atom beam injectors.

wherein the system is configured to generate an FRC and maintain the FRC without decay while the neutral beams are injected into the plasma.

33. The system of claim 32 wherein the system is configured to generate an FRC and maintain the FRC at or about a constant value without decay while neutral atom beams are injected into the FRC.

34. The system of claims 32 and 33 wherein the mirror plug comprises third and fourth sets of mirror coils between each of the first and second formation sections and the first and second divertors.

35. The system of claims 32-34 wherein the mirror plug further comprises a set of mirror plug coils wrapped around a constriction in the passageway between each of the first and second formation sections and the first and second divertors.

36. The system of claims 32-35 further comprising two or more saddle coils coupled to the confinement chamber.

37. The system of claims 32-36 wherein the formation section comprises modularized formation systems for generating an FRC and translating it toward a midplane of the confinement chamber.

38. The system of claims 32-37 wherein biasing electrodes includes one or more of one or more point electrodes positioned within the containment chamber to contact open field lines, a set of annular electrodes between the confinement chamber and the first and second formation sections to charge far-edge flux layers in an azimuthally symmetric fashion, a plurality of concentric stacked electrodes positioned in the first and second divertors to charge multiple concentric flux layers, and anodes of the plasma guns to intercept open flux.