CLAIMS

What is claimed is:

1. A cooking system positionable on a support surface, the cooking system comprising:

a housing having a hollow chamber including an internal cooking chamber for receiving a food item;

at least one radiative heating element arranged within said hollow interior and operable to heat said cooking chamber; and

a convection heater disposed within said hollow chamber and operable to heat said cooking chamber;

wherein the cooking system is operable in a convection cooking mode, and during said convection cooking mode said at least one radiative heating element is selectively energized.

2. The cooking system of claim 1, wherein a cooking cycle of said convection cooking mode includes at least one convection cooking segment during which said convection heater is energized, and at least one pulsing segment during which said at least one radiative heating element is energized.

3. The cooking system of claim 2, wherein said convection heater includes a convective heating element, and during said at least one pulsing segment, said convective heating element is de-energized.

4. The cooking system of claim 2, wherein said convection heating system further includes an air movement device and a convective heating element for heating an air flow moved by said air movement device, and during said at least one pulsing segment said air movement device is energized, while said convective heating element is de-energized.

5. The cooking system of claim 2, wherein during said at least one pulsing segment, a power provided to said at least one radiative heating element is less than a full power associated with operation of said at least one radiative heating element.

6. The cooking system of claim 5, wherein during said at least one pulsing segment, said at least one radiative heating element is operated at about 50% of said full power.

7. The cooking system of claim 2, wherein a time of said at least one pulsing segment is shorter than a time of said at least one convection cooking segment.

8. The cooking system of claim 2, wherein said at least one pulsing segment occurs at a predetermined interval within said cooking cycle.

9. The cooking system of claim 2, wherein said at least one pulsing segment is initiated in response to a detection of a sensed condition.

10. The cooking system of claim 9, wherein said sensed condition includes accumulation of a food byproduct on said at least one radiative heating element.

11. The cooking system of claim 2, wherein a power delivered to said at least one radiative heating element during a pulsing segment is less than a power delivered to said convection heater during said convection cooking segment.

12. The cooking system of claim 2, wherein a time of said pulsing segment is less than a time of said convection cooking segment.

13. The cooking system of claim 12, wherein said convection cooking segment is approximately three times as long as a pulsing segment.

14. The cooking system of claim 1, wherein said at least one radiative heating element includes a first radiative heating element arranged adjacent a ceiling of said cooking chamber and a second radiative heating element arranged adjacent a floor of said cooking chamber.

15. The cooking system of claim 14, wherein during said convection cooking mode, said second radiative heating element is selectively energized to clean said second radiative heating element.

16. The cooking system of claim 14, wherein during said convection cooking mode, both said first radiative heating element and said second radiative heating element are selectively energized clean said second radiative heating element..

17. The cooking system of claim 1, wherein said convection heating system is located remotely from said internal cooking chamber.

18. The cooking system of claim 1, wherein said hollow interior includes a convective chamber in fluid communication with said cooking chamber, said convection heating being arranged within said convective chamber.

19. The cooking system of claim 18, further comprising a fan shroud mounted within said hollow interior, wherein said fan shroud forms a partition that separates said cooking chamber and said convective chamber.

20. The cooking system of claim 1, wherein the cooking system is operable in a radiative cooking mode.

21. The cooking system of claim 17, wherein in the radiative cooking mode, only the at least one radiative heating element is energized.

22. The cooking system of claim 1, wherein the cooking system has a maximum power of 1800W.