WHAT IS CLAIMED IS:

1. A downhole tool, comprising:

a tubular; and

a collection of conductive individual separate chunks of expandable metal positioned about the tubular, the collection of conductive individual separate chunks of expandable metal comprising a metal configured to expand in response to hydrolysis, wherein the collection of conductive individual separate chunks of expandable metal each has a surface-area-to-volume ratio (SA:V) ranging from 5 cm^{-1} to 50 cm^{-1} and further wherein during the expansion, the separate chunks of expandable metal are configured to go from metal to micron-scale particles that are larger and lock together.

2. The downhole tool as recited in Claim 1, wherein the collection of conductive individual separate chunks of the expandable metal are a collection of conductive individual separate different sized chunks of expandable metal.

3. The downhole tool as recited in Claim 2, wherein a first volume of a largest of the collection of conductive individual separate chunks of the expandable metal is at least 5 times a second volume of a smallest of the collection of conductive individual separate chunks of the expandable metal.

4. The downhole tool as recited in Claim 2, wherein a first volume of a largest of the collection of conductive individual separate chunks of the expandable metal is at least 50 times a second volume of a smallest of the collection of conductive individual separate chunks of the expandable metal.

5. The downhole tool as recited in Claim 2, wherein the collection of conductive individual separate chunks of the expandable metal are held together with a binding agent.

6. The downhole tool as recited in Claim 1, further including a surface positioned about the tubular, the tubular and the surface defining a space there between, and further wherein the collection of conductive individual separate chunks of expandable metal are positioned in the space.

7. A method for sealing within a well system, comprising:

positioning a downhole tool within a wellbore extending toward a subterranean formation, the downhole tool including:

a tubular; and

a collection of conductive individual separate chunks of expandable metal positioned about the tubular, the collection of conductive individual separate chunks of expandable metal comprising a metal configured to expand in response to hydrolysis, wherein the collection of conductive individual separate chunks of expandable metal each has a surface-area-to-volume ratio (SA:V) ranging from 5 cm^{-1} to 50 cm^{-1} and further wherein during the expansion, the separate chunks of expandable metal are configured to go from metal to micron-scale particles that are larger and lock together; and

subjecting the collection of conductive individual separate chunks of expandable metal to reactive fluid to form one or more expanded metal seals.

8. The method as recited in Claim 7, wherein the collection of conductive individual separate chunks of the expandable metal are a collection of conductive individual separate different sized chunks of expandable metal, wherein a first volume of a largest of the collection of conductive individual separate chunks of the expandable metal is at least 5 times a second volume of a smallest of the collection of conductive individual separate chunks of the expandable metal.

9. The method as recited in Claim 8, wherein a first volume of a largest of the collection of conductive individual separate chunks of the expandable metal is at least 50 times a second volume of a smallest of the collection of conductive individual separate chunks of the expandable metal.

10. The method as recited in Claim 9, further including a surface positioned about the tubular, the tubular and the surface defining a space there between, and further wherein the collection of conductive individual separate chunks of expandable metal are positioned in the space.

11. A well system, comprising:

a wellbore extending toward a subterranean formation;

a conveyance positioned within the wellbore; and

a downhole tool coupled to the conveyance, the downhole tool including:

a tubular; and

a collection of conductive individual separate chunks of expandable metal positioned about the tubular, the collection of conductive individual separate chunks of expandable metal comprising a metal configured to expand in response to hydrolysis, wherein the collection of conductive individual separate chunks of expandable metal each has a surface-area-to-volume ratio (SA:V) ranging from 5 cm^{-1} to 50 cm^{-1} and further wherein during the expansion, the separate chunks of expandable metal are configured to go from metal to micron-scale particles that are larger and lock together.

12. The well system as recited in Claim 11, wherein the collection of conductive individual separate chunks of the expandable metal are a collection of conductive individual separate different sized chunks of expandable metal, wherein a first volume of a largest of the collection of conductive individual separate chunks of the expandable metal is at least 50 times a second volume of a smallest of the collection of conductive individual separate chunks of the expandable metal.

13. The well system as recited in Claim 11, further including a surface positioned about the tubular, the tubular and the surface defining a space there between, and further wherein the collection of conductive individual separate chunks of expandable metal are positioned in the space.