

WHAT IS CLAIMED IS:

1. A method for reducing the annular pressure around a liner hanger, the method comprising:
  - 5 positioning a liner hanger in a wellbore, the liner hanger comprising:
    - two sealing elements disposed on the exterior of the liner hanger and having a void space therebetween, and
    - a pressure reducing metal element disposed between the two sealing elements;
    - trapping a wellbore fluid in the void space, wherein the wellbore fluid thermally
    - 10 expands in the void space creating an annular pressure in the void space; and
    - reducing the annular pressure by materially altering the pressure reducing metal element.
  2. The method of claim 1, wherein the materially altering the pressure reducing metal
  - 15 element comprises changing the phase of the pressure reducing metal element.
  3. The method of claim 2, wherein the changing the phase of the pressure reducing metal element comprises melting the pressure reducing metal element.
  - 20 4. The method of claim 2, wherein the changing the phase of the pressure reducing metal element comprises galvanically reacting the pressure reducing metal element.
  5. The method of claim 1, wherein the materially altering the pressure reducing metal element comprises reacting the pressure reducing metal element with the wellbore fluid.
  - 25 6. The method of claim 1, wherein the pressure reducing metal element comprises a metal selected from the group consisting of bismuth, antimony, gallium, lead, tin, manganese, cadmium, aluminum, iron, magnesium, nickel, beryllium, barium, zinc, calcium, tin, copper, zirconium, yttrium, neodymium, gadolinium, silver, rhenium, any alloy thereof, and any
  - 30 combination thereof.
  7. The method of claim 1, wherein the pressure reducing metal element comprises a metal alloy having at least one alloyed metal selected from the group consisting of bismuth, antimony, gallium, aluminum, calcium, magnesium, and any combination thereof.

8. The method of claim 1, wherein the pressure reducing metal element is manufactured to include voids within the pressure reducing metal element.
- 5 9. The method of claim 1, wherein the pressure reducing metal element further comprises a hollow crushable material.
10. The method of claim 1, wherein the wellbore is a wellbore of a geothermal well.
- 10 11. A liner hanger for suspending a liner, the liner hanger comprising:  
two sealing elements disposed on the exterior of the liner hanger; and  
a pressure reducing metal element disposed between the two sealing elements.
12. The liner hanger of claim 11, wherein the pressure reducing metal element comprises  
15 a metal selected from the group consisting of bismuth, antimony, gallium, lead, tin, manganese, cadmium, aluminum, iron, magnesium, nickel, beryllium, barium, zinc, calcium, tin, copper, zirconium, yttrium, neodymium, gadolinium, silver, rhenium, any alloy thereof, and any combination thereof.
- 20 13. The liner hanger of claim 11, wherein the pressure reducing metal element comprises a metal alloy having at least one alloyed metal selected from the group consisting of bismuth, antimony, gallium, aluminum, calcium, magnesium, and any combination thereof.
14. The liner hanger of claim 11, wherein the pressure reducing metal element is  
25 manufactured to include voids within the pressure reducing metal element.
15. The liner hanger of claim 11, wherein the pressure reducing metal further comprises a hollow crushable material.
- 30 16. A liner hanger system for suspending a liner in a wellbore, the system comprising:  
a liner hanger comprising:  
two sealing elements disposed on the exterior of the liner hanger, and  
a pressure reducing metal element disposed between the two sealing elements,  
the liner coupled to a first end of the liner hanger; and

a conduit connected to a second end of the liner hanger.

17. The system of claim 16, wherein the pressure reducing metal element comprises a metal selected from the group consisting of bismuth, antimony, gallium, lead, tin, manganese, cadmium, aluminum, iron, magnesium, nickel, beryllium, barium, zinc, calcium, tin, copper, zirconium, yttrium, neodymium, gadolinium, silver, rhenium, any alloy thereof, and any combination thereof.
18. The system of claim 16, wherein the pressure reducing metal element is manufactured to include voids and/or a hollow crushable material within the pressure reducing metal element.
19. The system of claim 16, wherein the conduit is a casing or a layer of set cement.
20. The system of claim 16, wherein the wellbore is the wellbore of a geothermal well.