Claims:

1. A method of making a porous sintered body by particle injection molding a liquid injection composition into a shaped mold cavity, the method comprising:

flowing the liquid injection composition into the shaped mold cavity, wherein the liquid injection composition comprises:

at least one polymeric binder, and

from 20 and 50 percent by volume solid ~~inorganic~~metal particles, based on total volume of the liquid injection composition; ~~and~~

causing the polymeric binder to solidify within the shaped mold cavity to form a solidified injection composition comprising solid binder surrounding the solid ~~inorganic~~metal particles;

removing the solidified injection composition from the shaped mold cavity;

removing the solid binder from the solidified injection composition to form a porous non-sintered body; and

sintering the porous non-sintered body to form a porous sintered membrane, wherein the porous sintered membrane has a porosity in a range from 50 to 80 percent.

~~2. The method of claim 1, further comprising:~~

~~removing the solidified injection composition from the mold cavity,~~

~~removing the solid binder from the solidified injection composition to form a porous non-sintered body, and~~

~~sintering the porous non-sintered body to form a porous sintered membrane.~~

~~3~~2. The method of claim 1, wherein the solid ~~inorganic~~metal particles are dendritic or fibrous and have an apparent density below 2.0 grams per cubic centimeter.

~~4~~3. The method of ~~any one of~~ claim~~s~~ 1 ~~through 3~~or 2, wherein the polymeric binder comprises a primary binder that can be removed from the solidified injection composition by contacting the solidified injection composition with a liquid solvent selected from water, organic solvent, and a combination thereof, at a temperature in a range from 40 to 80 degrees Celsius.

~~5~~4. The method of claim ~~4~~3, wherein the polymeric binder comprises a secondary binder that can be removed from the solidified injection composition by heating the solidified injection composition to a temperature of not more than 600 degrees Celsius.

~~6~~5. A liquid injection composition comprising:

from 50 to 80 percent by volume polymeric binder, and

from 20 and 50 percent by volume solid ~~inorganic~~metal particles having a relative apparent density in a range from 5 to 35 percent of a theoretical density of the particles, based on total volume of the liquid injection composition.

~~7~~6. An injection molded porous sintered body formed from the method of any one of claims 1 to 4, comprising sintered metal particles and having a porosity in a range from 50 to 80 percent.

~~8~~7. The body of claim ~~7~~6, wherein the body is in the form of an annular filter membrane having a shape comprising a three-dimensional tube.

~~9~~8. The body of claim ~~7~~6, comprising two opposed major surfaces and a thickness between the two opposed surfaces and having a non-cylindrical shape.

~~10~~9. The body of any one of claims ~~7~~6 through ~~9~~8, further comprising an injection mold marking.