CLAIMS

What is claimed is:

1. A filter material comprising a polyol ligand having three or more hydroxyl groups, wherein the filter material is configured to be used in conjunction with a microelectronic fabrication system for providing a metal- or metal ion-depleted liquid composition.

2. The filter material of claim 1, wherein the polyol ligand is an amino polyol ligand.

3. The filter material of claim 2, wherein the filter material further comprises a polyphosphonic acid ligand.

4. The filter material of claim 3, wherein the polyphosphonic acid ligand is an amino polyphosphonic acid ligand or an amino diphosphonic acid ligand.

5. A method of removing one or more metal(s) or metal ion(s) from a liquid composition, the method comprising:

contacting a filter material with a liquid composition comprising one or more metal or metal ions, the filter material comprising a polyol ligand having three or more hydroxyl groups, and

reducing an amount of the one or more metal or metal ions in the liquid composition.

6. The method of claim 5, wherein the filter material further comprises a polyphosphonic acid ligand.

7. The method of claim 5, wherein the liquid composition is an aqueous basic composition having a pH in a range of about 10 to about 14.

8. The method of claim 5, wherein the liquid composition comprises TMAH, TBAH, ammonium hydroxide, or concentrated HCl having an HCl concentration of greater than 10%.

9. A composite membrane comprising:

a first filter material and a second filter material, an output facing surface of the first filter material in contact with an input facing surface of the second filter material,

wherein the first filter material or the second filter material comprises a polyol ligand having three or more hydroxyl groups and the second filter material is different from the first filter material, and

wherein the composite membrane is configured to be used in conjunction with a microelectronic fabrication system for providing a metal- or metal ion-depleted liquid composition.

10. The composite membrane of claim 9, wherein the first filter material is a porous polymeric filter membrane and the second filter material is polymeric resin particles.