What is claimed is:

1. A resin composition (14), comprising:

an epoxy matrix;

a first photoacid generator including a first anion having a first molecular weight; and

a second photoacid generator including a second anion having a second molecular weight that is at least 50 g/mol greater than the first molecular weight;

wherein i) a cation of the first photoacid generator has, or ii) a cation of the second photoacid generator has, or iii) a cation of the first and second photoacid generators have a mass attenuation coefficient of least 0.1 L/(g*cm) at the wavelength of incident light to cure the resin composition.

2. The resin composition of claim 1,wherein the molecular weight is less than 250 g/mol; and

the second molecular weight is greater than about 300 g/mol.

3. The resin composition of claim 1 wherein the epoxy resin matrix includes an epoxy functionalized polyhedral oligomeric silsesquioxane; wherein the first molecular weight is less than 250 g/mol; and the second molecular weight is ranging from 300 g/mol to 1,000 g/mol.

4. The resin composition as defined in claim 2 or 3, wherein the first photoacid generator is selected from the group consisting of bis-(4-methylphenyl)iodonium hexafluorophosphate, triphenylsulfonium hexafluorophosphate, diaryliodonium hexafluorophosphate, and diaryliodonium hexafluoroantimonate.

5. The resin composition as defined in claim 2 or 3, wherein the second photoacid generator is selected from the group consisting of triphenylsulfonium tetrakis(perfluorophenyl)borate, tetrakis(pentafluorophenyl)gallate, and tris[(trifluoromethyl)sulfonyl]methanide.

6. The resin composition as defined in claim 2 or 3, wherein the cation of the first photoacid generator is, or the cation of the second photoacid generator is, or the cations of the first and second photoacid generators are selected from the group consisting of a diaryliodonium cation having a maximum absorption wavelength (λ_{max}) of about 350 nm and a triphenylsulfonium cation.

7. The resin composition as defined in claim 2 or 3, wherein:

the cation of the second photoacid generator has the mass attenuation coefficient of at least 0.1 L/(g*cm) at the wavelength of incident light to cure the resin composition; and

the cation of the first photoacid generator has a mass attenuation coefficient less than 0.1 L/(g*cm) at the wavelength of incident light to cure the resin composition, and optionally wherein:

the cation of the second photoacid generator is selected from the group consisting of a diaryliodonium cation having a maximum absorption wavelength (λ_{max}) of 350 nm and a triphenylsulfonium cation; and

the cation of the first photoacid generator is selected from the group consisting of a bis-(4-methylphenyl)iodonium cation, a (cumene)cyclopentadienyliron(II) cation, a ferrocene cation, a 1-naphthyl diphenyl sulfonium cation, a (4-phenylthiophenyl) diphenylsulfonium, a bis(2,4,6-trimethylphenyl) iodonium cation, a bis(4-tert-butylphenyl) iodonium cation, and a triarylsulfonium cation.

8. The resin composition as defined in claim 2 or 3, wherein the cation of the first photoacid generator and the cation of the second photoacid generator have respective mass attenuation coefficients of at least 0.1 L/(g*cm) at the wavelength of incident light to cure the resin composition.

9. The resin composition as defined in claim 2, wherein:

the first photoacid generator is present in an amount ranging from 1 mass% to 5 mass% of total solids in the resin composition; and

the second photoacid generator is present in an amount ranging from 0.1 mass% to 2 mass% of total solids in the resin composition; orwherein the molecular weight of the anion of the second photoacid generator ranges from greater than 300 g/mol to 1,000 g/mol.

10. The resin composition as defined in claim 3, wherein the epoxy functionalized polyhedral oligomeric silsesquioxane is selected from the group consisting of a glycidyl functionalized polyhedral oligomeric silsesquioxane, an epoxycyclohexyl ethyl functionalized polyhedral oligomeric silsesquioxane, and combinations thereof; or wherein the epoxy resin matrix further includes an additional epoxy material selected from the group consisting of trimethylolpropane triglycidyl ether; tetrakis(epoxycyclohexyl ethyl)tetramethyl cyclotetrasiloxane; a copolymer of (epoxycyclohexylethyl)methylsiloxane and dimethylsiloxane; 1,3-bis[2-(3,4-epoxycyclohexyl) ethyl] tetramethyl disiloxane; 1,3-bis(glycidoxypropyl)tetramethyl disiloxane; 3,4-epoxycyclohexylmethyl-3,4-epoxycyclo-hexanecarboxylate; bis((3,4-epoxycyclohexyl)methyl) adipate; 4-vinyl-1-cyclohexene 1,2-epoxide; vinylcyclohexene dioxide; 4,5-epoxytetrahydrophthalic acid diglycidylester; 1,2-epoxy-3-phenoxypropane; glycidyl methacrylate; 1,2-epoxyhexadecane; poly(ethylene glycol) diglycidylether; pentaerythritol glycidyl ether; diglycidyl 1,2-cyclohexanedicarboxylate; tetrahydrophthalic acid diglycidyl ester; and combinations thereof; or wherein the first photoacid generator is present in an amount ranging from 1 mass% to 5 mass% of total solids in the resin composition or wherein the second photoacid generator is present in an amount ranging from 0.1 mass% to 2 mass% of total solids in the resin composition.

11. A flow cell (10’), comprising:

a substrate (12); and

a cured, patterned resin on the substrate (14’), the cured, patterned resin including depressions (16) separated by interstitial regions (22), and the

cured, patterned resin including a cured form of a resin composition (14) including:

an epoxy resin matrix;

a first photoacid generator including an anion having a molecular weight less than 250 g/mol; and

a second photoacid generator including an anion having a molecular weight greater than 300 g/mol;

wherein i) a cation of the first photoacid generator has, or ii) a cation of the second photoacid generator has, or iii) the cations of the first and second photoacid generators have a mass attenuation coefficient of at least 0.1 L/(g*cm) at a wavelength of incident light to cure the resin composition.

12. The flow cell as defined in claim 11, further comprising:

a hydrogel (18) in the depressions; and

amplification primers (24, 24') attached to the hydrogel.

13. The flow cell as defined in claim 11, or the resin composition as defined in claim 2, wherein the epoxy resin matrix comprises an epoxy material selected from the group consisting of an epoxy functionalized silsesquioxane; trimethylolpropane triglycidyl ether; tetrakis(epoxycyclohexyl ethyl)tetramethyl cyclotetrasiloxane; a copolymer of (epoxycyclohexylethyl)methylsiloxane and dimethylsiloxane; 1,3-bis[2-(3,4-epoxycyclohexyl) ethyl] tetramethyl disiloxane; 1,3-bis(glycidoxypropyl)tetramethyl disiloxane; 3,4-epoxycyclohexylmethyl-3,4-epoxycyclo-hexanecarboxylate; bis((3,4-epoxycyclohexyl)methyl) adipate; 4-vinyl-1-cyclohexene 1,2-epoxide; vinylcyclohexene dioxide; 4,5-epoxytetrahydrophthalic acid diglycidylester; 1,2-epoxy-3-phenoxypropane; glycidyl methacrylate; 1,2-epoxyhexadecane; poly(ethylene glycol) diglycidylether; pentaerythritol glycidyl ether; diglycidyl 1,2-cyclohexanedicarboxylate; tetrahydrophthalic acid diglycidyl ester; and combinations thereof.

14. The flow cell as defined in claim 11, wherein:

the first photoacid generator is selected from the group consisting of bis-(4-methylphenyl)iodonium hexafluorophosphate, triphenylsulfonium hexafluorophosphate, diaryliodonium hexafluorophosphate, and diaryliodonium hexafluoroantimonate; and

the second photoacid generator is selected from the group consisting of triphenylsulfonium tetrakis(perfluorophenyl)borate, tetrakis(pentafluorophenyl)gallate, and tris[(trifluoromethyl)sulfonyl]methanide.

15. A method of making a flow cell (10'), comprising:

depositing a resin composition (14) on a substrate (12), the resin composition including:

an epoxy resin matrix;

a first photoacid generator including an anion having a molecular weight less than 250 g/mol; and

a second photoacid generator including an anion having a molecular weight greater than 300 g/mol;

wherein i) a cation of the first photoacid generator has, or ii) a cation of the second photoacid generator has, or iii) the cations of the first and second photoacid generators have a mass attenuation coefficient of at least 0.1 L/(g*cm) at a wavelength of incident light to cure the resin composition;

nanoimprinting the deposited resin composition using a working stamp; and

exposing the nanoimprinted, deposited resin composition to the incident light at an energy dose ranging from 0.5 J to 10 J for 30 seconds or less to form a cured, patterned resin (14').