TABLE 2-continued

G	near UV	63	H_2O/Shipley 351 6.0/1	60	deep UV	2000	H_2O/Shipley 312 2.25/1	60	Approx. 1
H	near UV	63	H_2O/Shipley 351 5.5/1	60	deep UV	100	H_2O/Shipley 312 3/1	60	Approx. 1
I	near UV	70	H_2O/Shipley 351 5.5/1	60	none		H_2O/Shipley 312 3/1	60	Approx. 5

(1)Wt. % based on polyglutarimide
(2)BONP = bis (o-nitrobenzyl) pimelate or bis (o-nitrobenzyl)-1,7 heptane dioate
(3)1b = 1-borneol
(4)Obtained by spinning resist system two times.

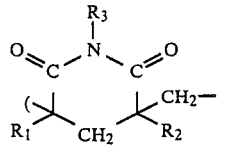
TABLE 3

		Etch Conditions							
		Total	R_F	DC	Gas Flow		Etch	Average	Film
Sample	Resist Type	Pressure (millitorrs)	Power (Watts)	bias (Volts)	BCl_3 (cc/min)	Cl_2	Time (minutes)	Relative Etch Rate(3)	Quality After Etching
J	P(1)	27-28	425	−180	55	6	11.75	1.9	No reticulation
K	N(2)	27-28	425	−180	55	6	11.75	1.5	No reticulation
L	P	27-28	600	−231	50	10	5.5	2.5	No reticulation
M	N	27-28	600	−231	50	10	5.5	—(4)	Reticulation (fried)

(1)P = polyglutarimide resist
(2)N = novolak resist
(3)Average relative etch rate is equal to ratio of the etch rate of aluminum layer divided by the etch rate of the resist layer.
(4)Etch rate not determined because of severe reticulation of resist.

What is claimed is:

1. A positive photoresist comprising a preformed, non-crosslinked polyglutarimide polymer formed from an ester of (meth)acrylic acid and having at least five percent by weight glutarimide units of the structure



where R_1, R_2 and R_3 independently represent hydrogen or unsubstituted or substituted alkyl, aryl, aralky, or alkaryl hydrocarbons having from one to twenty carbon atoms and where at least 20 mole percent of the R_3 substituents are hydrogen, dissolved in a non-aqueous, spinning solvent, and where the photoresist is developable with an aqueous solution.

2. The positive photoresist of claim 1 further comprising a positive acting photosensitizer dissolved in said non-aqueous spinning solvent.

3. The positive photoresist of claim 1 comprising from about 5 to about 30 weight non-crosslinked polyglutarimide and from about 95 to about 70 weight percent non-aqueous, spinning solvent.

4. The positive photoresist of claim 3 comprising from about 10 to about 20 weight percent non-crosslinked polyglutarimide and from about 90 to about 80 weight percent non-aqueous, spinning solvent.

5. The positive photoresist of claim 2 where the concentration of said photosensitizer is from about 5 to about 30 weight percent based on the weight of said preformed, non-crosslinked polyglutarimide.

6. The positive photoresist of claim 2 wherein said photosensitizer is selected from the group consisting of diazooxides, and bis(o-nitrobenzyl)-1,7 heptane dioate.

7. The positive photoresist of claim 1 wherein the polyglutarimide has an atomic ratio of carbon to nitrogen of at least 8 and a glass transition temperature of at least 140° C.

8. The positive photoresist of claim 1 where said preformed polyglutarimide is formed by imidizing a polymethyl methacrylate polymer with ammonia.

9. The positive photoresist of claim 8 wherein said preformed polyglutarimide is formed by imidizing a polymethyl methacrylate polymer with a mixed reactant system comprising at least 20 weight percent ammonia and at least one alkylamine.

10. The positive photoresist of claim 1 wherein the non-aqueous, spinning solvent comprises a non-solvent for polyglutarimides selected from the group consisting of: acetyl acetone; 1-methoxy-2-propanol; cyclohexanone; chlorobenzene; mixtures of ethylene glycol monoethylether acetate, xylene and butyl acetate; xylene, toluene; butyl acetate; 1,2-dimethoxyethane; and ethylene glycol monomethyl ether in combination with one or more of the non-spinning solvents or mixtures thereof selected from the group consisting of: amide, polar, aprotic solvents; hydroxylic, polar, protic solvents; polar, aprotic, ketonic solvents; small chain, polar, carboxylic acids; and polar, basic, ethers.

11. The photoresist of claim 2 wherein the photosensitizer absorbs near, mid or deep UV radiation.

12. A surface comprising an adherent, uniform, aqueous base developable, film having a thickness of about one micrometer, of the photoresist of claims 1 or 2.

13. The surface film of claim 12 having a thickness of about 0.5 micrometer to about 3.0 micrometers.

14. A multilayer photoresist comprising as a planarizing layer the photoresist of claim 1 and at least one other layer capable of being imaged on said planarizing layer.

15. The multilayer photoresist of claim 14 in which the planarizing layer and the adjacent layer deposited on said planarizing layer do not form an interfacial scum.

16. The photoresist of claim 1 being thermally resistant to temperatures of from about 140° C. to about 240° C.

17. The photoresist of claim 1 being resistant to reactive ion etching.

18. A process for forming an image on a surface comprising depositing an adherent positive acting film on