	α-hydroxycarboxylic acid or salt thereof		Additive		Fluoride ion concentration[1]	pH	Treatment temperature (°C)	Treatment time (min)	Object to be removed		Removal rate of non-removal object(nm/min)						
	Type	Concentration (mass%)	Type	Concentration (mass%)					Type	Removal rate (nm/min)	Al_2O_3	HfO_2	ZrO_2	TiN	SiO_2	Si_3N_4	Polysilicon
Ex. 1	Triammonium citrate	5	None	0	Less than 100	7.6	25	5	La_2O_3	13	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 2	Triammonium citrate	5	None	0	Less than 100	7.6	50	2	La_2O_3	25	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 3	Triammonium citrate	50	None	0	Less than 100	7.6	25	2	La_2O_3	20	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 4	Triammonium citrate	5	Hydrogen peroxide	5	Less than 100	7.6	25	5	La_2O_3	3	Less than 0.1	Less than 0.1	Less than 0.1	9	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 5	Diammonium hydrogen citrate	5	None	0	Less than 100	5	25	5	La_2O_3	9	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 6	Diammonium tartrate	5	None	0	Less than 100	7.6	25	5	La_2O_3	15	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 7	Diammonium malate	5	None	0	Less than 100	7.6	25	5	La_2O_3	4	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 8	Ammonium lactate	5	None	0	Less than 100	7.6	25	5	La_2O_3	2	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 9	Triammonium citrate	5	Ammonium fluoride	0.5	0.5 mass%	8	25	10	La_2O_3	4[2]	0.2	0.3	Less than 0.1	Less than 0.1	0.2	0.4	1
Ex. 10	Triammonium citrate	5	None	0	Less than 100	7.6	25	5	LaN	10	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 11	Triammonium citrate	5	None	0	Less than 100	7.6	25	10	Lanthanum hafnate	5	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 12	Triammonium citrate	5	None	0	Less than 100	7.6	25	10	Lanthanum aluminate	3	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 13	Triammonium citrate	5	None	0	Less than 100	7.6	25	5	Lanthanum titanate oxynitride	7	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 14	Trisodium citrate	5	None	0	Less than 100	8	25	5	La_2O_3	15	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Ex. 15	Trisodium citrate	5	None	0	Less than 100	8	25	5	La_2O_3	11	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Comp. Ex. 1	None	0	Ammonia	5	Less than 100	14	25	10	La_2O_3	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	3
Comp. Ex. 2	Citric acid	5	None	0	Less than 100	2	25	10	La_2O_3	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Comp. Ex. 3	Ammonium propionate	5	None	0	Less than 100	8	25	10	La_2O_3	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Comp. Ex. 4	Ammonium γ-hydroxybutyrate	5	None	0	Less than 100	8	25	10	La_2O_3	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1	Less than 0.1
Comp. Ex. 5	Citric acid	5	Ammonium fluoride	0.5	0.5 mass%	2	25	5	La_2O_3	Less than 0.1[2]	6	2	1	6	2	3	4

1) The units of the numeric values are mass ppm excluding Example 9 and Comparative Example 5.

2) Lanthanum fluoride was generated.