

Fig.1

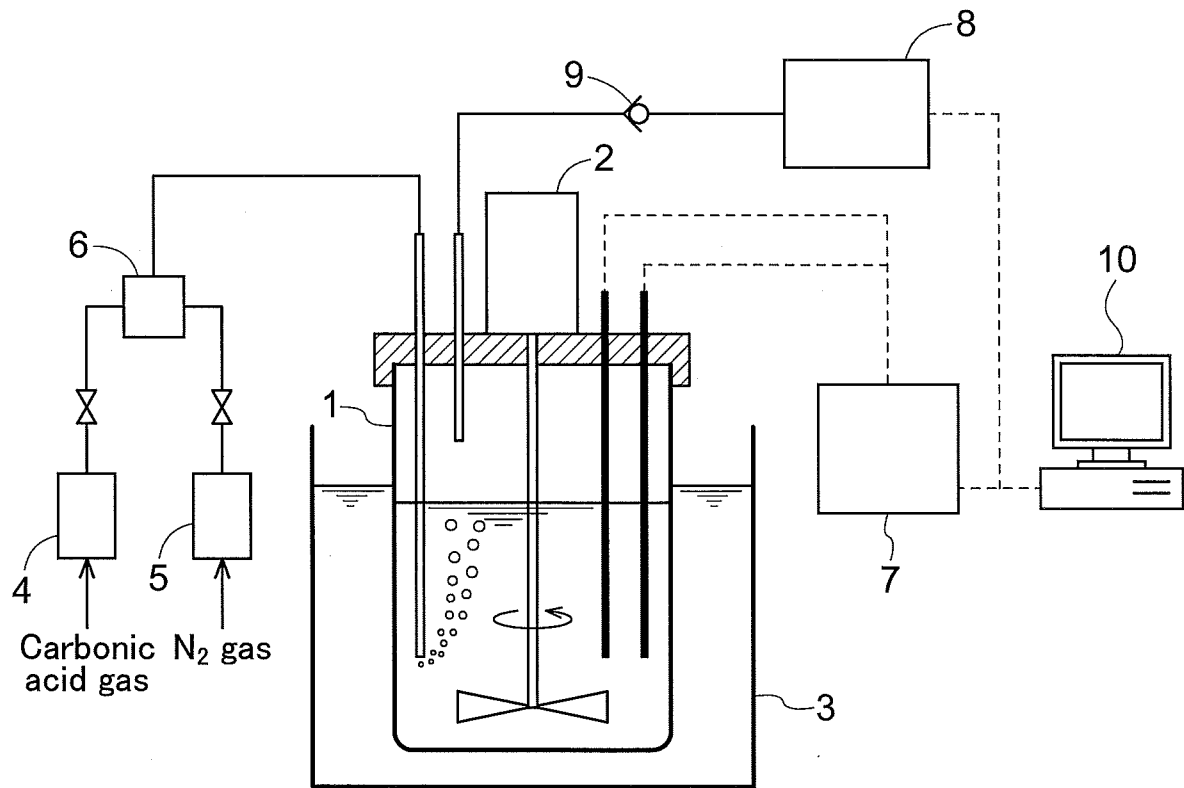


Fig.2

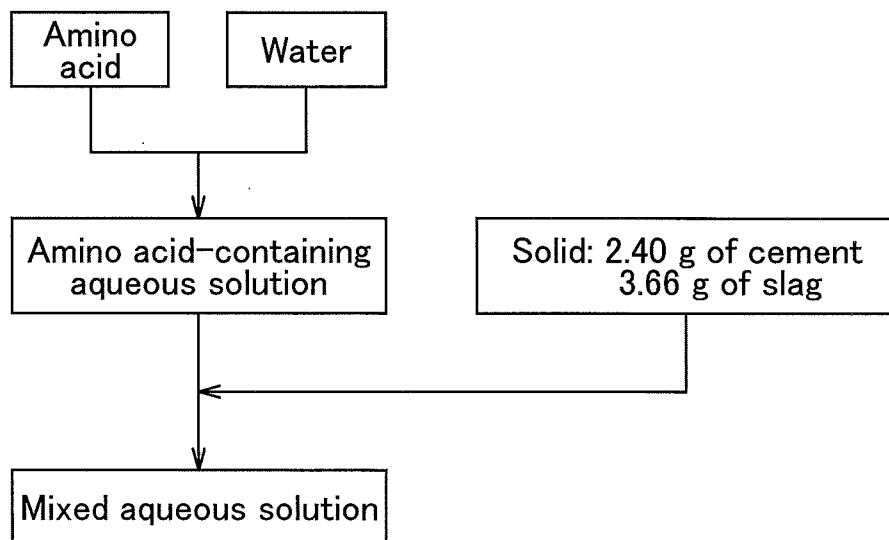


Fig.3

Various types of amino acids	Solid	Molar ratio	Weight of solid (g)	Weight of amino acid (g)
L-proline	Cement	1:0.1	2.401	0.315
		1:1	2.401	3.164
	Slag	1:0.1	3.660	0.317
		1:1	3.661	3.164
L-alanine	Cement	1:0.1	2.401	0.246
		1:1	2.400	2.449
	Slag	1:0.1	3.659	0.244
		1:1	3.661	2.448
L-cysteine	Cement	1:0.1	2.400	0.334
		1:1	2.400	3.329
	Slag	1:0.1	3.661	0.333
		1:1	3.661	3.330
L-isoleucine	Cement	1:0.1	2.400	0.362
		1:1	2.401	3.605
	Slag	1:0.1	3.661	0.361
		1:1	3.661	3.605
DL-alanine	Cement	1:0.1	2.400	0.245
		1:1	2.401	2.449
	Slag	1:0.1	3.661	0.244
		1:1	3.660	2.449
L-leucine	Cement	1:0.1	2.399	0.361
		1:1	2.398	3.602
	Slag	1:0.1	3.595	0.361
		1:1	3.599	3.606
L-valine	Cement	1:0.1	2.392	0.319
		1:1	2.407	3.219
	Slag	1:0.1	3.592	0.318
		1:1	3.593	3.218
L-(-)-threonine	Cement	1:0.1	2.397	0.326
		1:1	2.401	3.267
	Slag	1:0.1	3.606	0.335
		1:1	3.587	3.277
L-tryptophan	Cement	1:0.1	2.402	0.561
		1:1	2.407	5.616
	Slag	1:0.1	3.597	0.567
		1:1	3.602	5.612

Fig.4

Various types of amino acids	Solid	Molar ratio	Weight of solid (g)	Weight of amino acid (g)
L-methionine	Cement	1:0.1	2.401	0.407
		1:1	2.396	4.101
	Slag	1:0.1	3.594	0.404
		1:1	3.601	4.107
L-phenylalanine	Cement	1:0.1	2.398	0.456
		1:1	2.392	4.533
	Slag	1:0.1	3.607	0.449
		1:1	3.603	4.536
L-asparagine hydrate	Cement	1:0.1	2.395	0.415
		1:1	2.396	4.125
	Slag	1:0.1	3.597	0.410
		1:1	3.593	4.217
L-(-)-tyrosine	Cement	1:0.1	2.402	0.504
		1:1	2.398	4.973
	Slag	1:0.1	3.593	0.496
		1:1	3.592	4.966
Glycine	Cement	1:0.1	2.400	0.212
		1:1	2.398	2.072
	Slag	1:0.1	3.597	0.209
		1:1	3.593	2.069
L-serine	Cement	1:0.1	2.387	0.285
		1:1	2.395	2.887
	Slag	1:0.1	3.596	0.293
		1:1	3.600	2.887
N-acetyl-D-glucosamine	Cement	1:0.1	2.396	0.605
		1:1	2.397	6.083
	Slag	1:0.1	3.598	0.608
		1:1	3.603	6.078
D-glucosamic acid	Cement	1:0.1	2.394	0.542
		1:1	2.403	5.366
	Slag	1:0.1	3.597	0.538
		1:1	3.598	5.369

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Fig.5

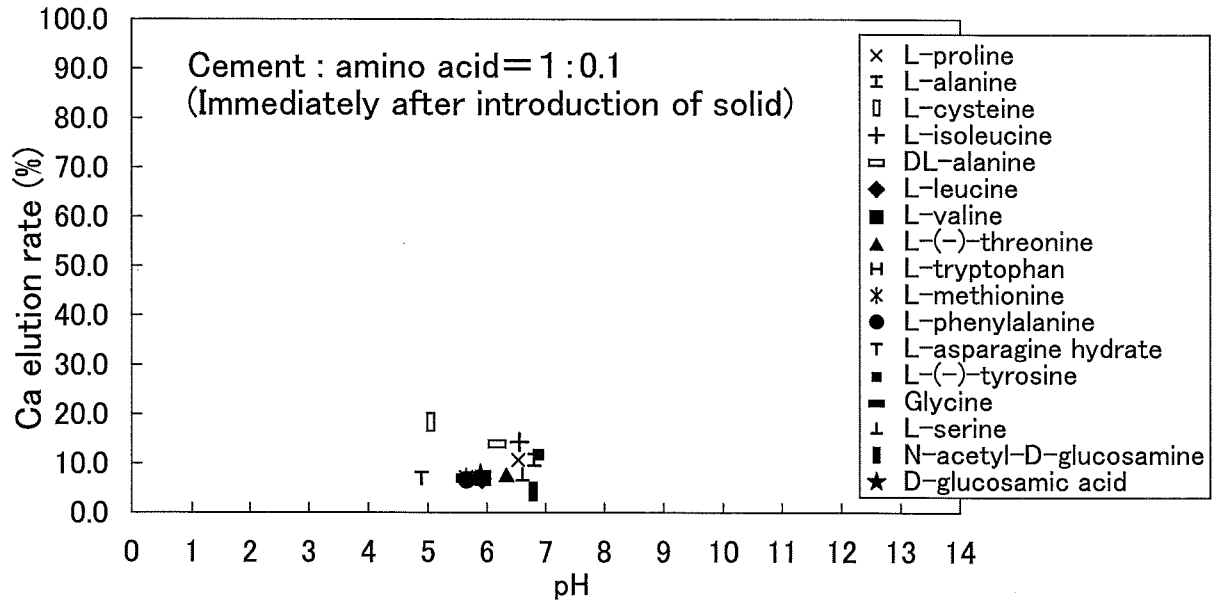
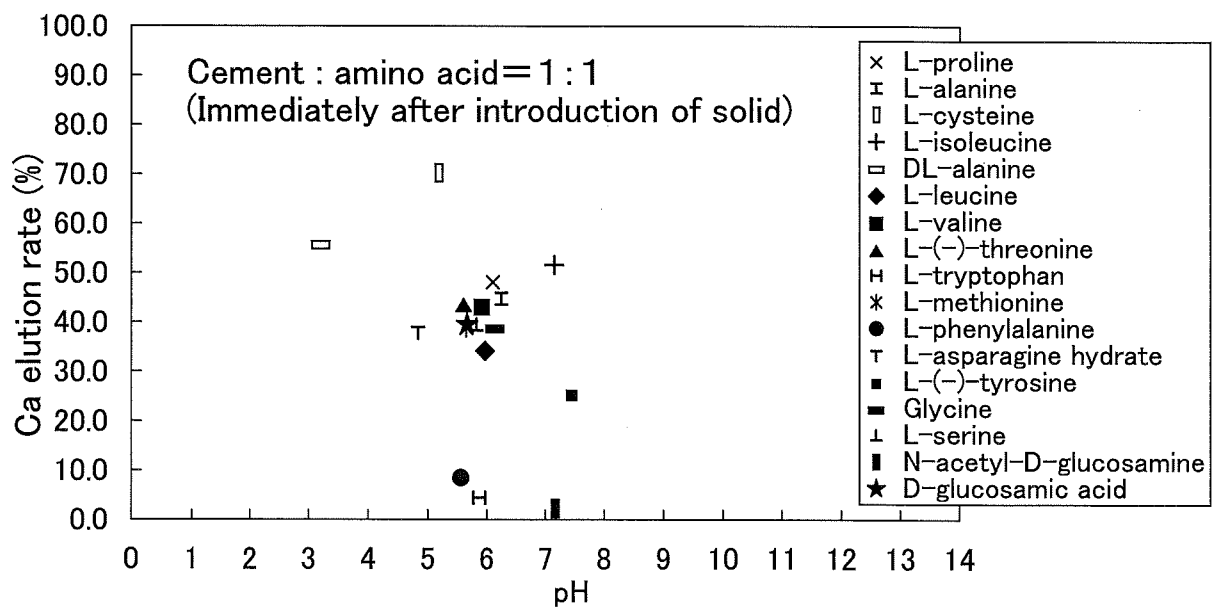


Fig.6



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Fig.7

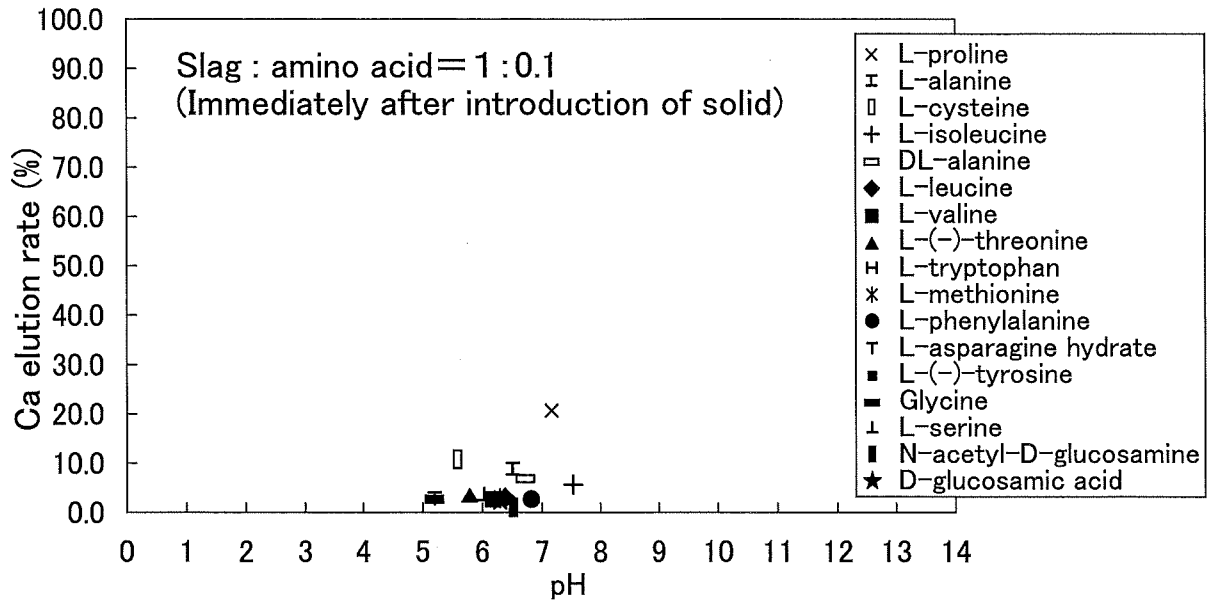
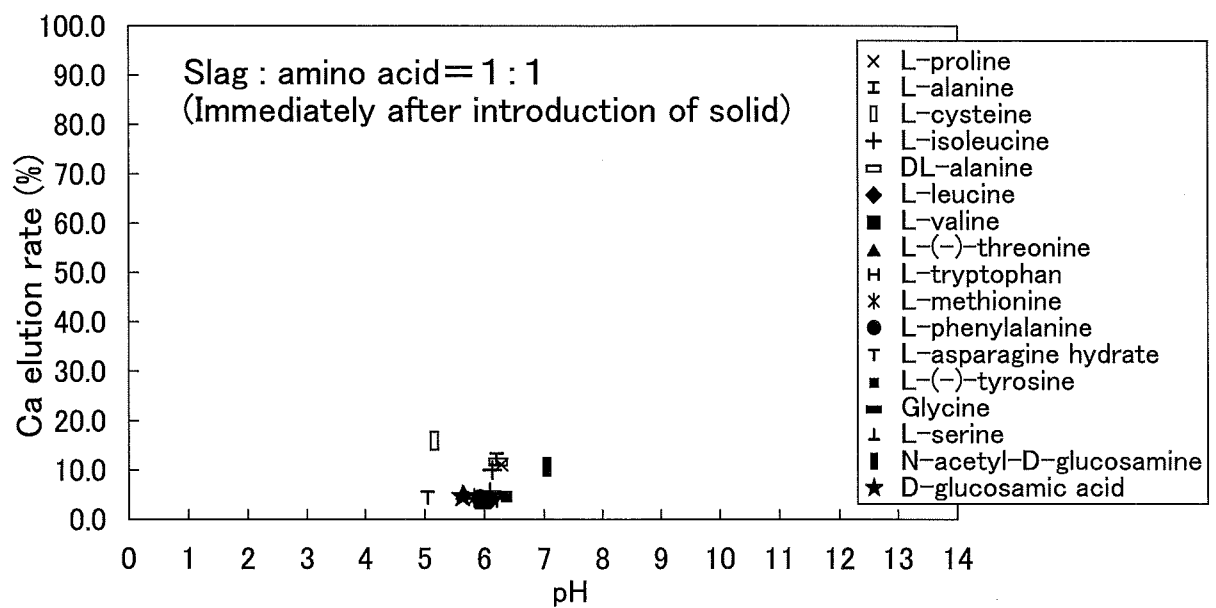


Fig.8



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Fig.9

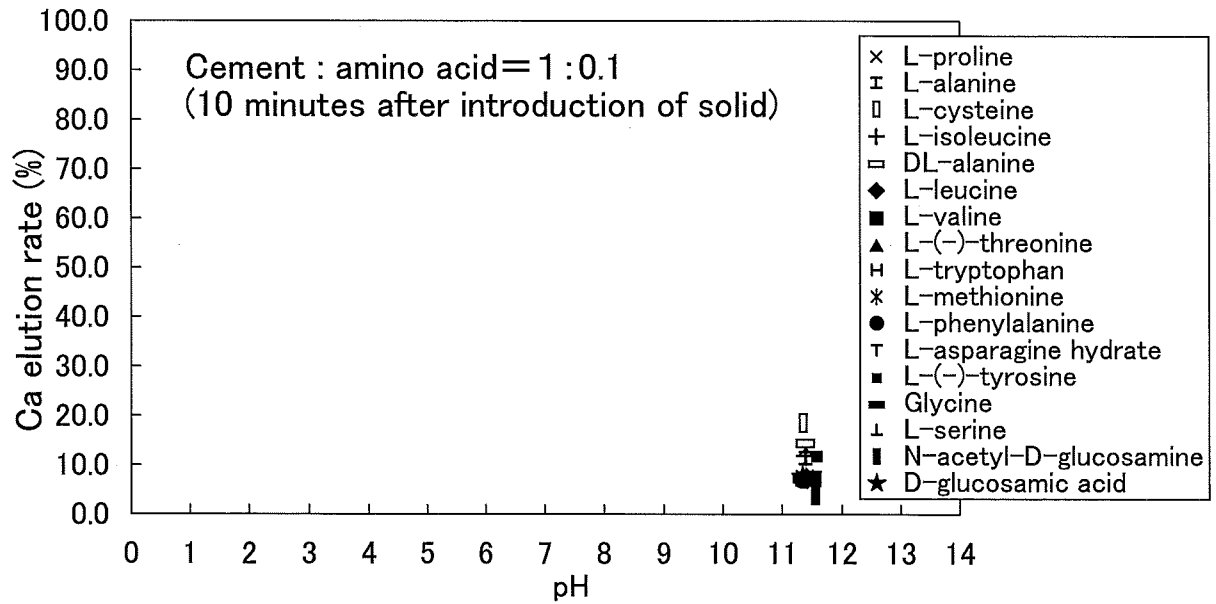
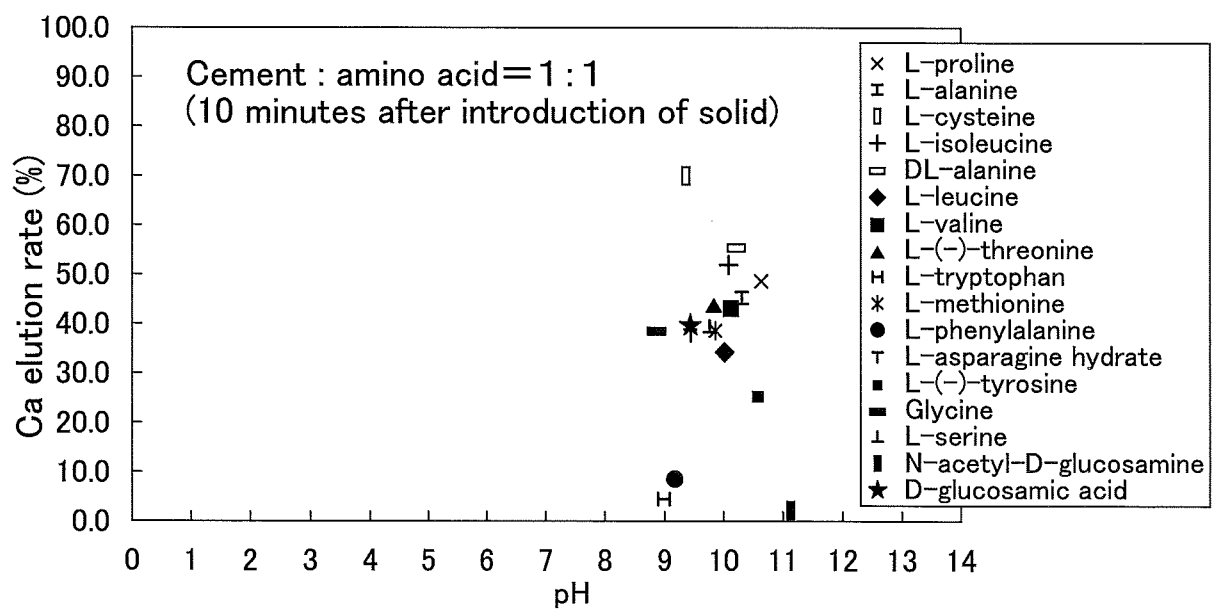


Fig.10



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Fig.11

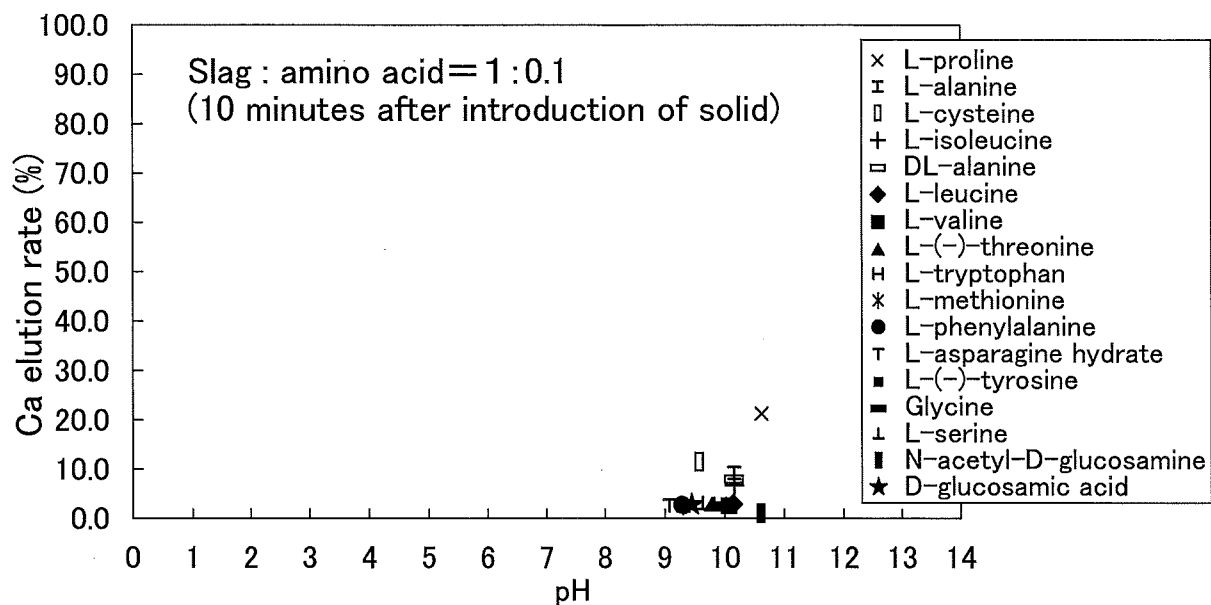
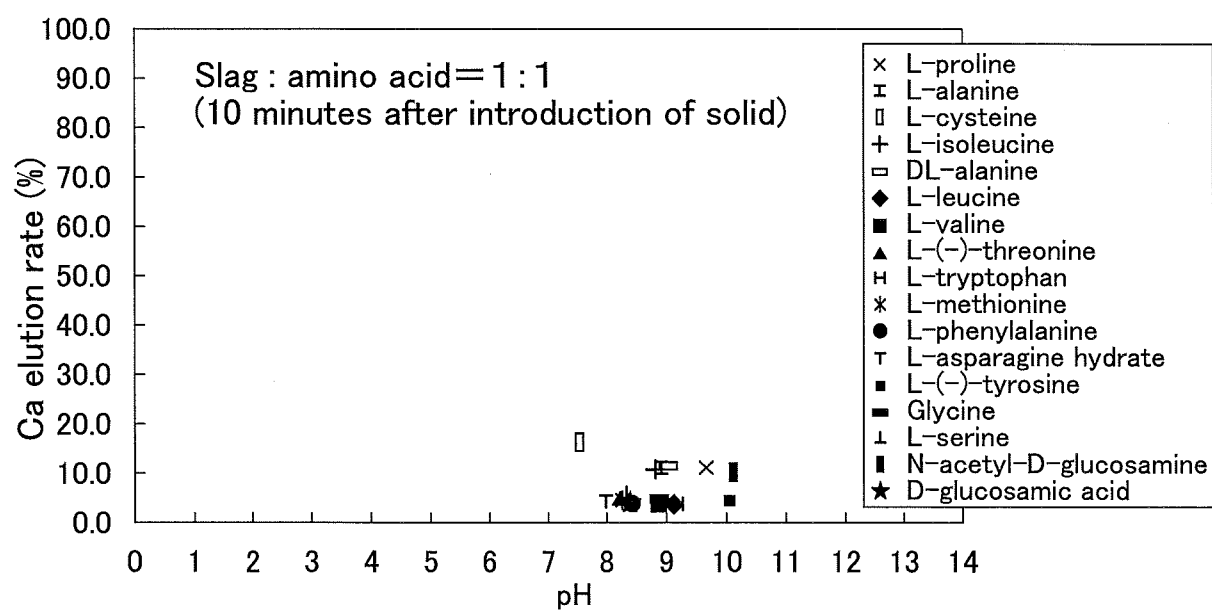
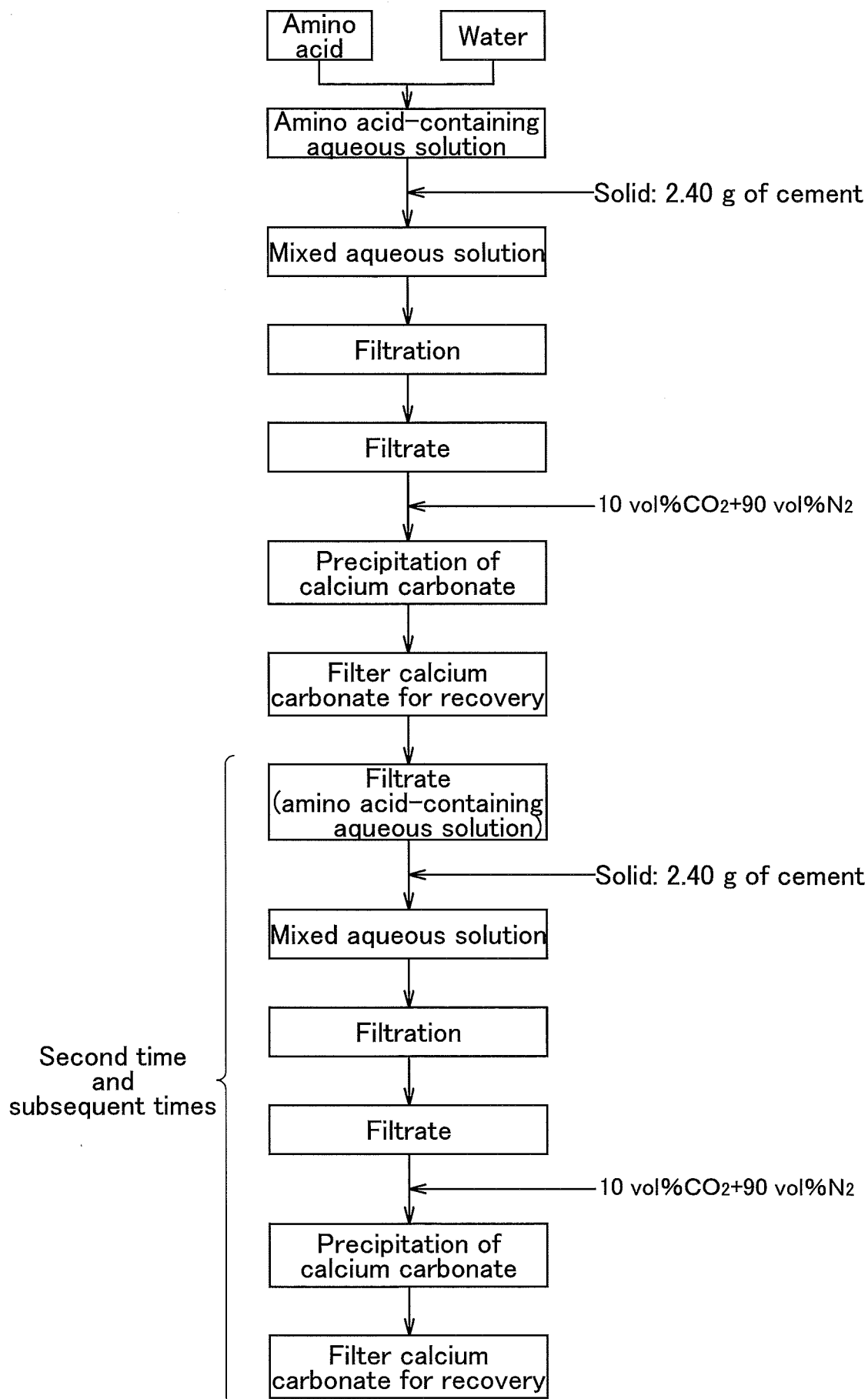


Fig.12



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Fig.13



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Fig.14

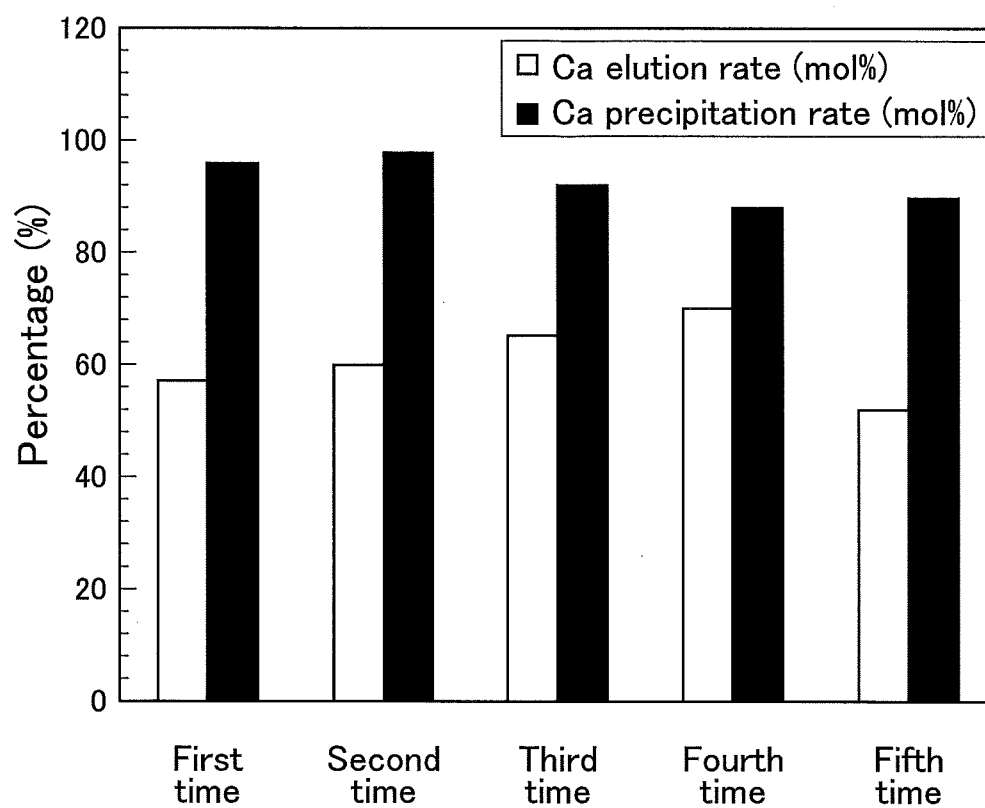


Fig.15

Various types of amino acids	Solid	Molar ratio	Isoelectric point	Converted concentration of Ca eluted in saturated aqueous solution (mol/L)	Solid	Molar ratio	Isoelectric point	Converted concentration of Ca eluted in saturated aqueous solution (mol/L)
L-aspartic acid	Cement	1 : 1	2.98	2.19E-01	Slag	1 : 1	2.98	9.09E-02
L-glutamic acid	Cement	1 : 1	3.29	4.83E-01	Slag	1 : 1	3.29	2.07E-01
L-cysteine	Cement	1 : 1	5.11	4.61E+00	Slag	1 : 1	5.11	1.03E+00
L-alanine	Cement	1 : 1	6.12	3.02E+01	Slag	1 : 1	6.12	7.61E+00
DL-alanine	Cement	1 : 1	6.12	3.70E+01	Slag	1 : 1	6.12	7.73E+00
L-proline	Cement	1 : 1	6.24	3.24E+01	Slag	1 : 1	6.24	7.36E+00
Glycine	Cement	1 : 1	6.13	5.80E+00	Slag	1 : 1	6.13	1.12E+00
L-arginine	Cement	1 : 1	10.76	4.17E-01	Slag	1 : 1	10.76	1.99E-01

Fig.16

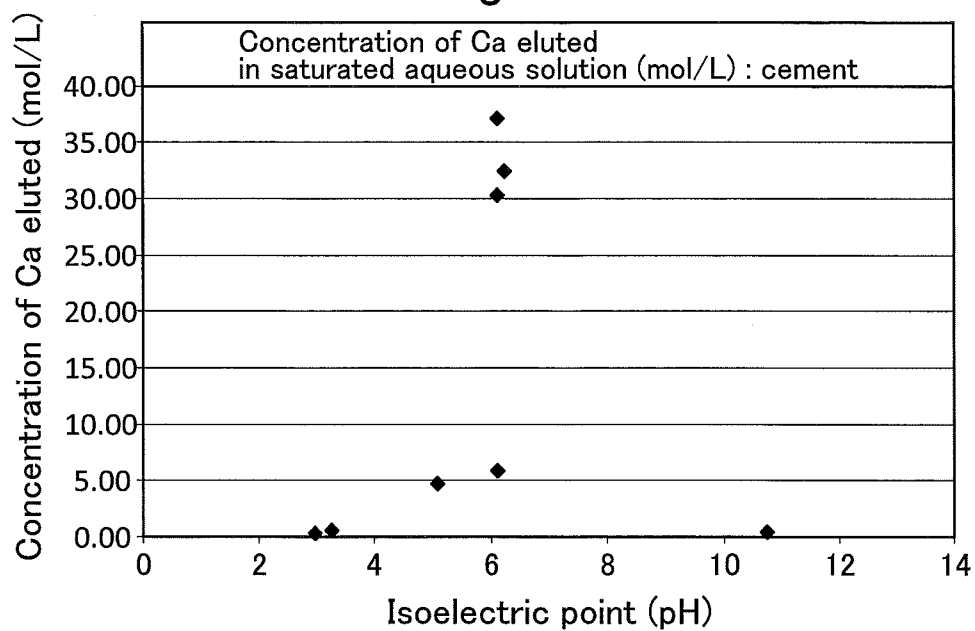


Fig.17

