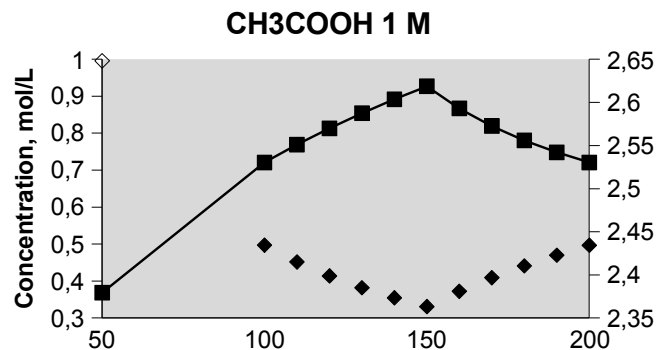
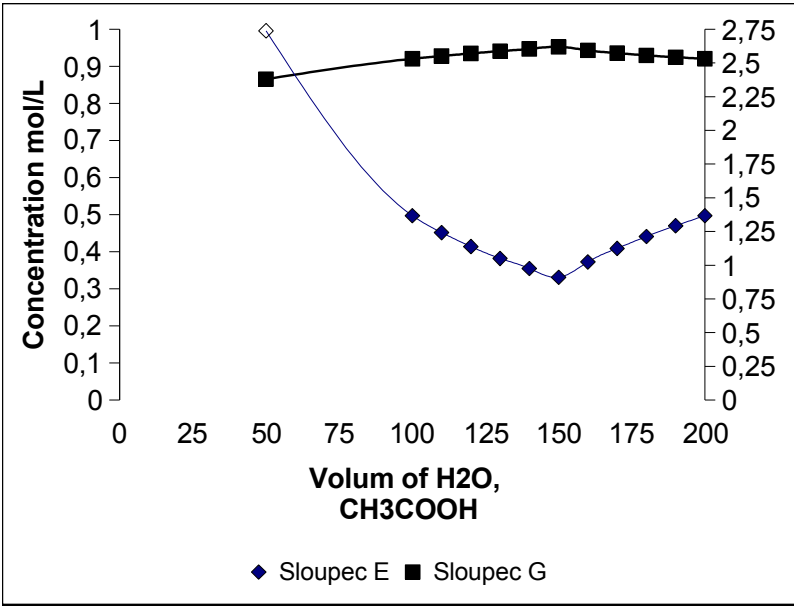


The modification of pH when the concentration of the acid solution changes.

CH₃COOH 1M

Vacetic aci	Vwater	Vfinal	cCH ₃ COOH	IH ⁺ (1000)	pH	KCH ₃ COOH
50	0	50	1	4,18	2,38	0
0	50	100	0,5	2,95	2,53	0
0	10	110	0,45	2,81	2,55	0
0	10	120	0,41	2,69	2,57	0
0	10	130	0,38	2,59	2,59	0
0	10	140	0,35	2,49	2,6	0
0	10	150	0,33	2,41	2,62	0
10	0	160	0,37	2,55	2,59	0
10	0	170	0,41	2,68	2,57	0
10	0	180	0,44	2,78	2,56	0
10	0	190	0,47	2,87	2,54	0
10	0	200	0,5	2,95	2,53	0



g of H₂O at 50 mL CH₃COOH 1M II adding of CH₃COOH at 1

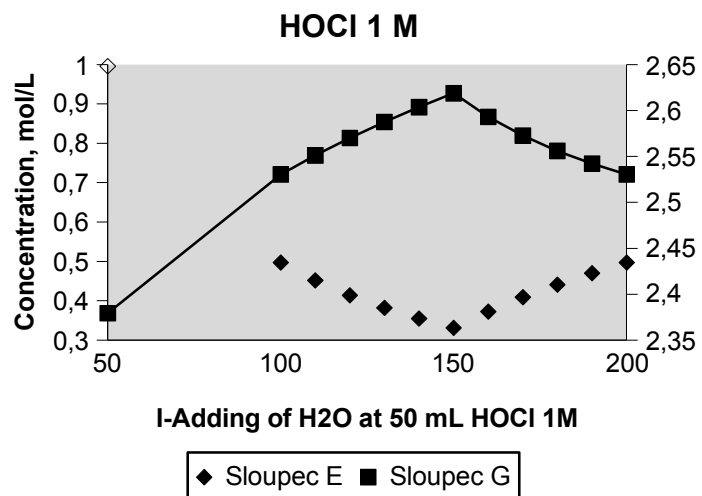
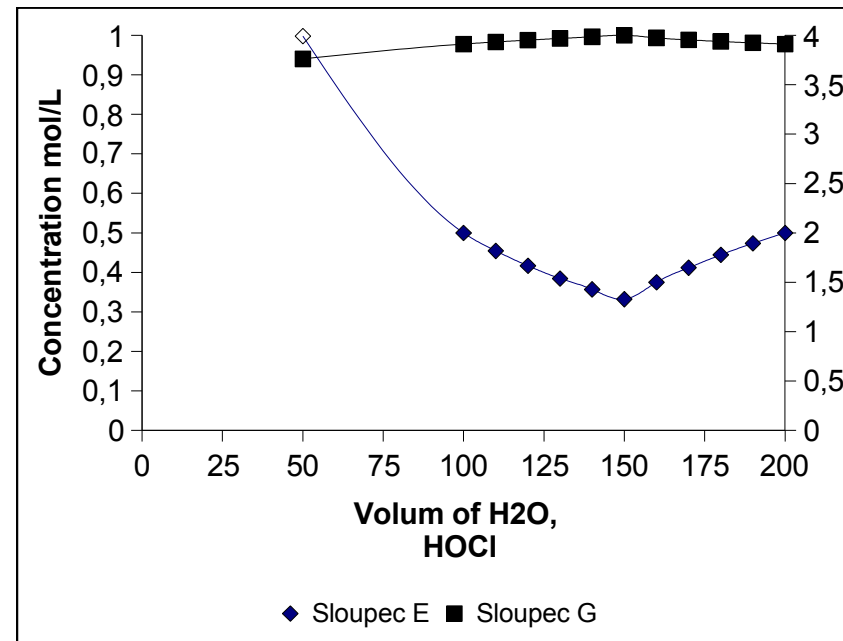
◆ Sloupec E ■ Sloupec G

The calculation of Ka -> KCH₃COOH

The modification of pH when the concentration of the acid solution changes

HOCl

V hypochlo	Vwater	Vfinal	cHOCl	H+*(10000 pH)	KaHOCl
50	0	50	1	1,73	3,76
0	50	100	0,5	1,23	3,91
0	10	110	0,45	1,17	3,93
0	10	120	0,42	1,12	3,95
0	10	130	0,38	1,08	3,97
0	10	140	0,36	1,04	3,99
0	10	150	0,33	1	4
10	0	160	0,37	1,06	3,97
10	0	170	0,41	1,11	3,95
10	0	180	0,44	1,16	3,94
10	0	190	0,47	1,19	3,92
10	0	200	0,5	1,23	3,91



Initially, we have 50 mL of acid solution 1M, then 10 mL H₂O are added when the pH increases.
 If we add 10 mL of acid starting from 150 mL, we will notice that the pH decreases.
 In conclusion, pH depends on the concentration of the acid: it decreases when the concentration augments.

Virtual Lab enables you to verify scientific theories without reagents, time, energy, or glassware consumption.

Vfinal	pH-CH ₃ C	pH-HOCl
50	2,38	3,76
100	2,53	3,91
110	2,55	3,93
120	2,57	3,95
130	2,59	3,97
140	2,6	3,99
150	2,62	4
160	2,59	3,97
170	2,57	3,95
180	2,56	3,94
190	2,54	3,92
200	2,53	3,91

