

**Table 3** pH measurement results on the product of liquid fermentation.

Inoculant	Sucrose 1%	s 1%	Molasses 2%	Repeation
BC1	5,56	5,29	5,42	1
	5,30	5,14	5,26	2
	5,85	5,47	4,49	3
BC2	5,56	5,37	5,22	1
	5,53	4,95	4,67	2
	4,81	5,36	5,05	3
BC3	5,23	5,26	5,10	1
	5,61	5,18	4,55	2
	5,45	5,20	4,92	3
BC I+II	5,78	5,46	5,03	1
	5,53	5,31	4,94	2
	5,43	5,02	4,53	3
BCI+III	5,70	5,61	5,07	1
	5,48	5,20	4,63	2
	6	5,34	4,97	3
BCII+III	5,57	4,81	5,17	1
	5,59	5,45	5,14	2
	5,78	5,38	5,59	3
BC I+II+III	5,33	4,70	4,91	1
	6,14	4,80	4,61	2
	5,43	4,94	4,96	3

As shown in Table 3, pH of fermentation products were different from the initial pH. Intial pH was adjusted at 7.5, whereas the average final pH was measured at 5 – 5.5. This phenomenon proved that fermentation process produced organic acids. Based on the products observed through isolation process, these organic acids comprised acetic acid, propionic acid, and ethanol, in which acetic acid had the highest content compared to propionic acid and ethanol. In addition, the longer fermentation resulted in the higher acetic acid content. As with previous studies in producing hydrogen from Clostridium, the anaerobic fermentation phase (dark fermentasig) the result is hydrogen gas and organic acids in which more organic acids than hydrogen [5][6]. To improve the productivity of hydrogen, fermentation continues in the next stage of (photo fermentation) using photosynthetic microorganisms. The study of hydrogen production using organic acids using photosynthesis mikroorgnisme will be done in subsequent studies.