

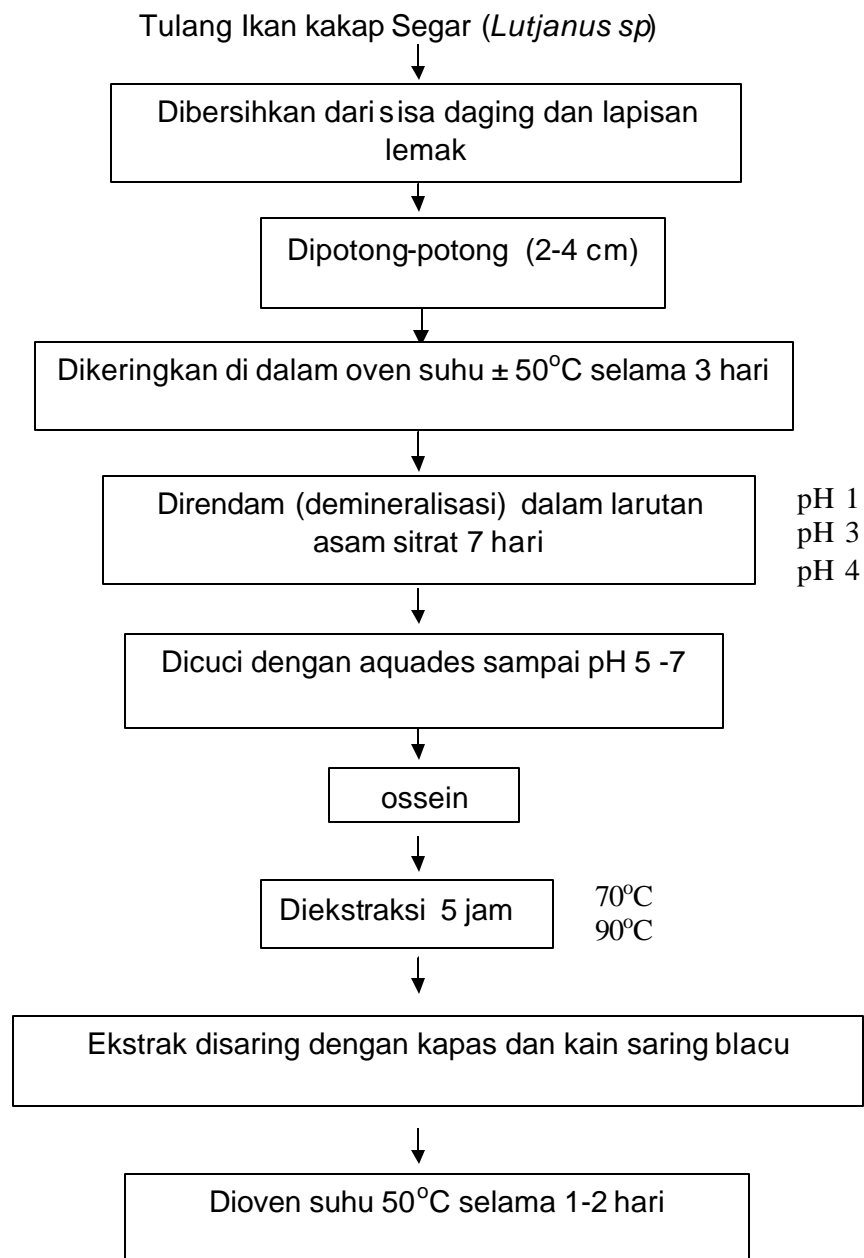
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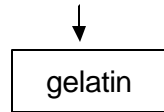
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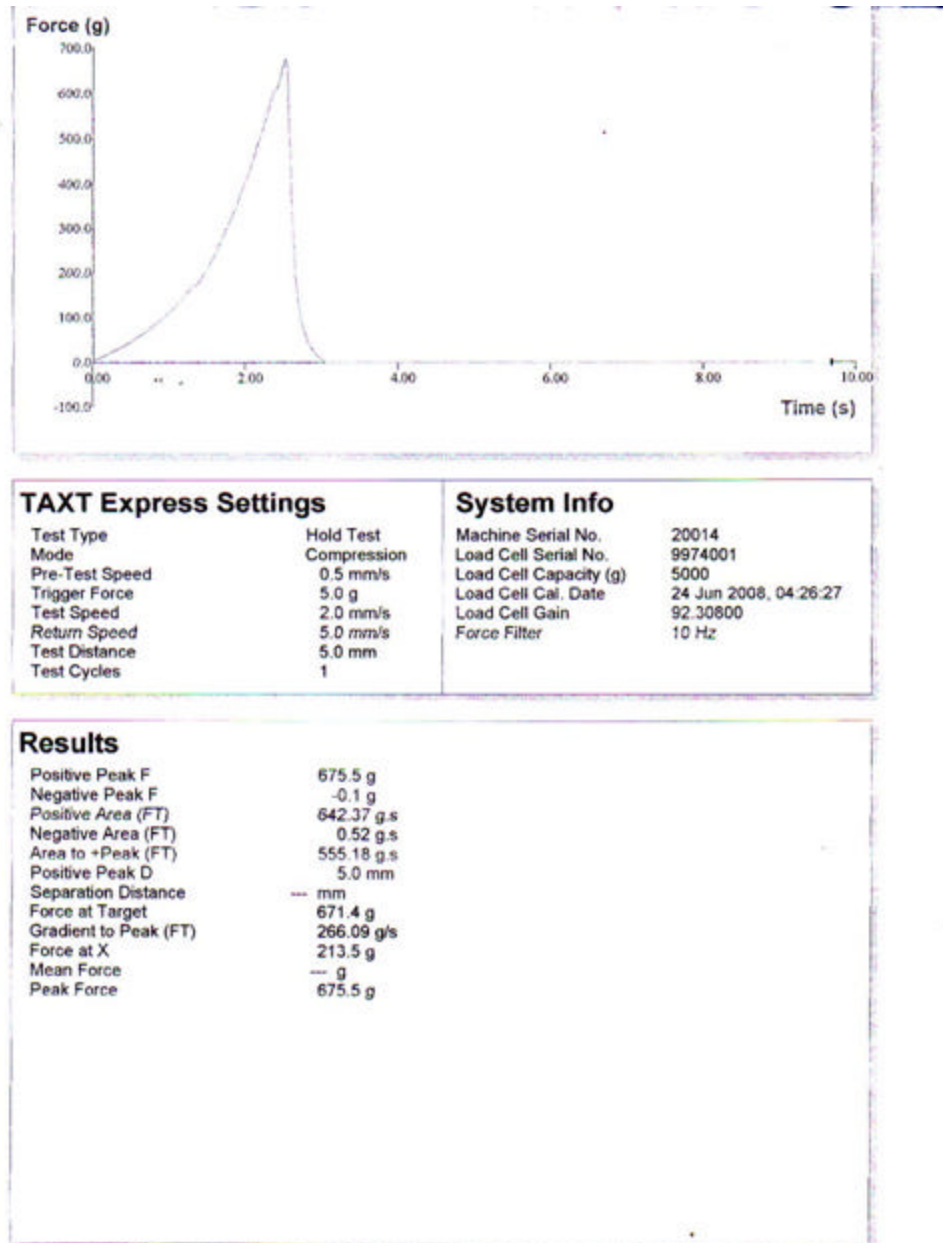
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Lampiran 1. Alur proses ekstraksi gelatin dari tulang ikan kakap merah

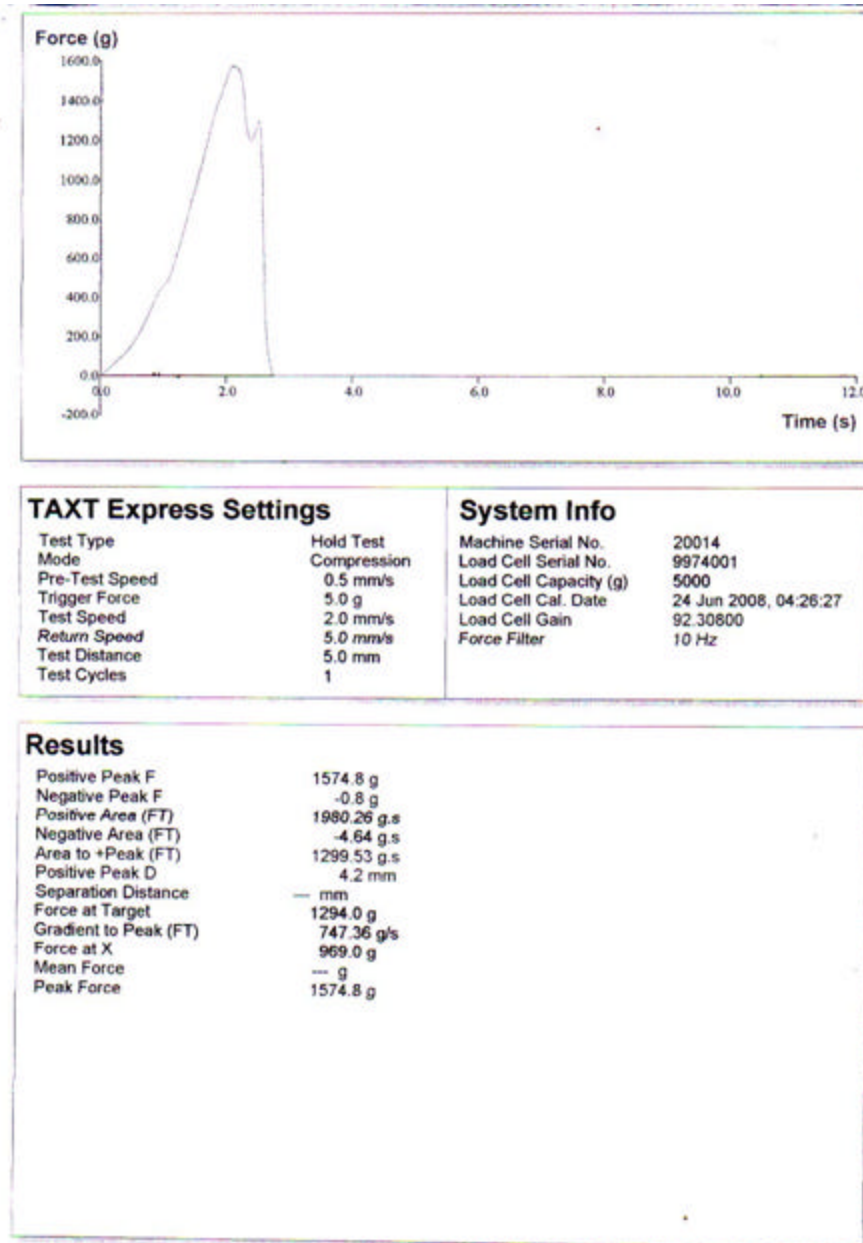




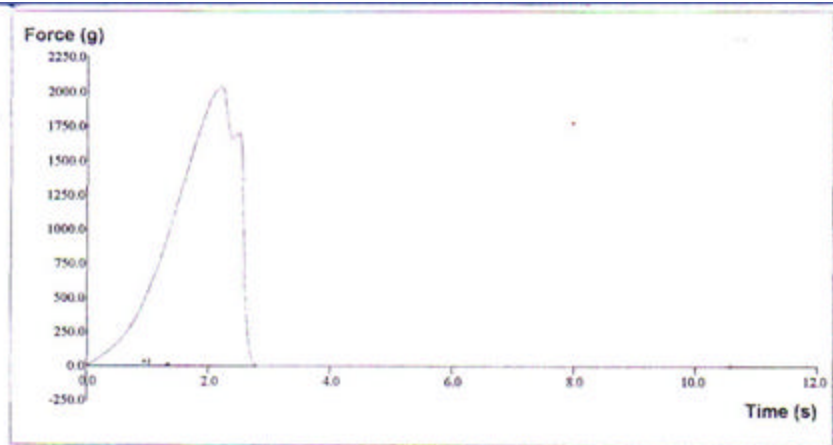
Lampiran 2. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 1, 70°C, 7 Hari



Lampiran 3. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 1, 90°C, 7 Hari



Lampiran 4. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 3, 70°C, 7 Hari



TAXT Express Settings

Test Type	Hold Test
Mode	Compression
Pre-Test Speed	0.5 mm/s
Trigger Force	5.0 g
Test Speed	2.0 mm/s
Return Speed	5.0 mm/s
Test Distance	5.0 mm
Test Cycles	1

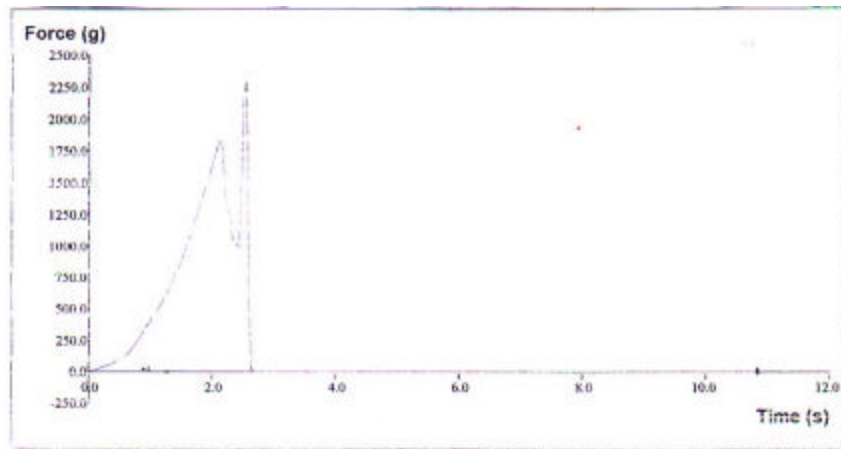
System Info

Machine Serial No.	20014
Load Cell Serial No.	9974001
Load Cell Capacity (g)	5000
Load Cell Cal. Date	24 Jun 2008, 04:26:27
Load Cell Gain	92.30800
Force Filter	10 Hz

Results

Positive Peak F	2032.6 g
Negative Peak F	-0.3 g
Positive Area (FT)	2506.87 g.s
Negative Area (FT)	-1.12 g.s
Area to +Peak (FT)	1705.61 g.s
Positive Peak D	4.4 mm
Separation Distance	— mm
Force at Target	1703.3 g
Distance to Peak (mm)	2.1 mm
Force at X	1200.6 g
Max Force	—
Peak Force	—

Lampiran 5. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 3, 90°C, 7 Hari



TAXT Express Settings

Test Type	Hold Test
Mode	Compression
Pre-Test Speed	0.5 mm/s
Trigger Force	5.0 g
Test Speed	2.0 mm/s
Return Speed	5.0 mm/s
Test Distance	5.0 mm
Test Cycles	1

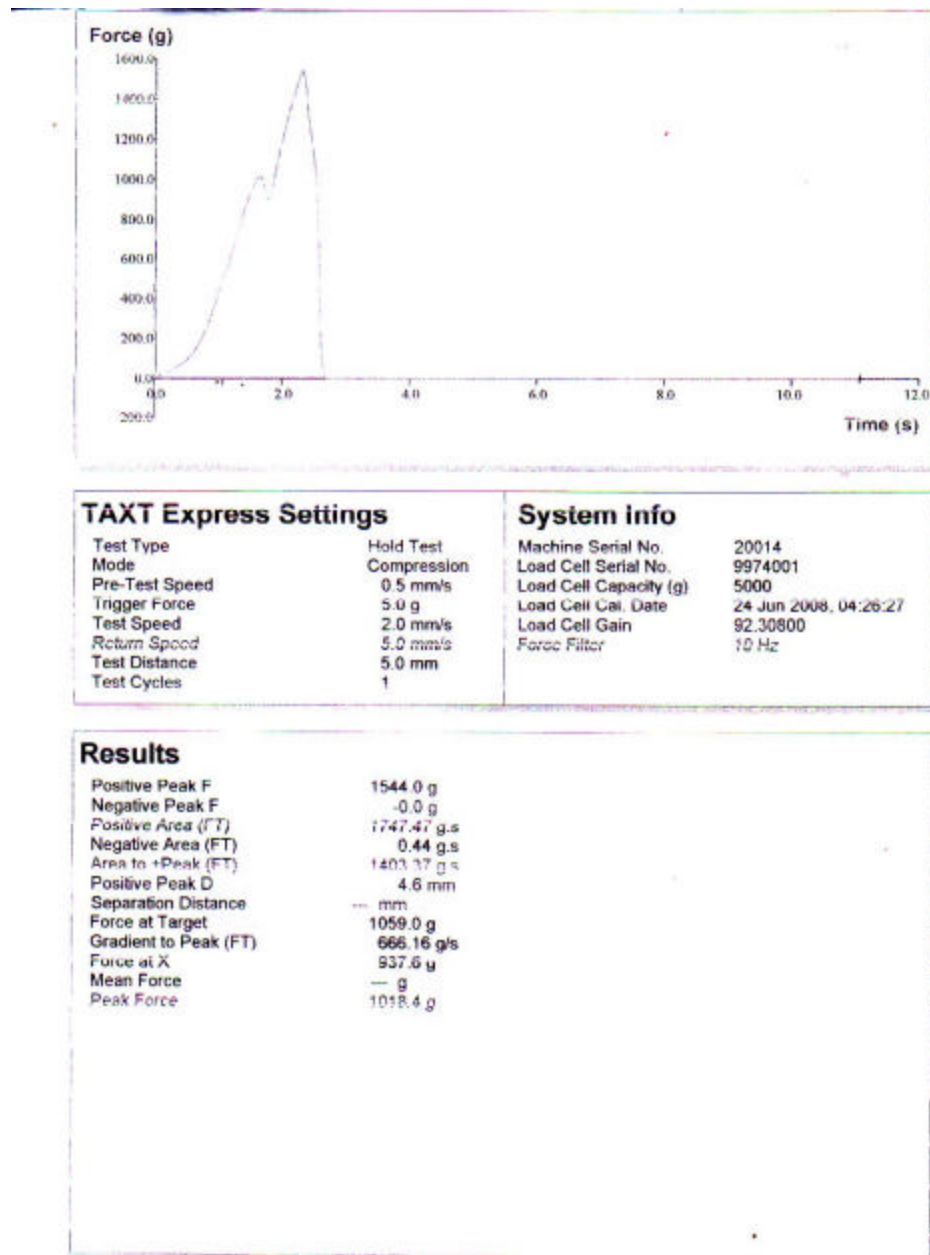
System Info

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Load Cell Serial No.	9974001
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Load Cell Cal. Date	24 Jun 2008, 04:26:27
Load Cell Gain	92.30800
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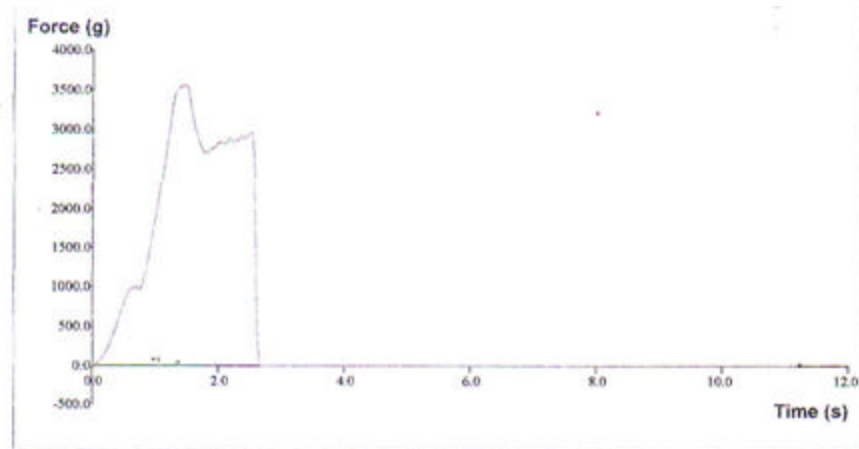
Results

Positive Peak F	2296.4 g
Negative Peak F	-0.2 g
Positive Area (FT)	1963.74 g.s
Negative Area (FT)	-0.10 g.s
Area to +Peak (FT)	1963.64 g.s
Positive Peak D	4.9 mm
Separation Distance	-- mm
Force at Target	2078.8 g
Gradient to Peak (FT)	902.04 g/s
Force at X	905.6 g
Mean Force	-- g
Peak Force	1960.8 g

Lampiran 6. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 4, 70°C, 7 Hari



Lampiran 7. Kurva Kekuatan Gel Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 4, 90°C, 7 Hari



TAXT Express Settings

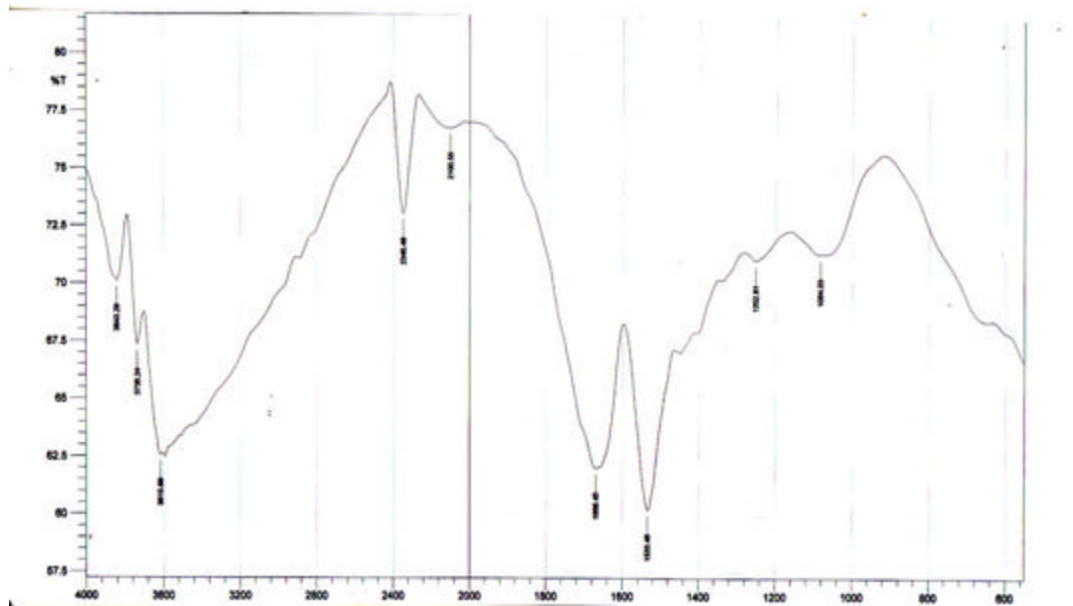
Test Type	Hold Test
Mode	Compression
Pre-Test Speed	0.5 mm/s
Trigger Force	5.0 g
Test Speed	2.0 mm/s
Return Speed	5.0 mm/s
Test Distance	5.0 mm
Test Cycles	1

System Info

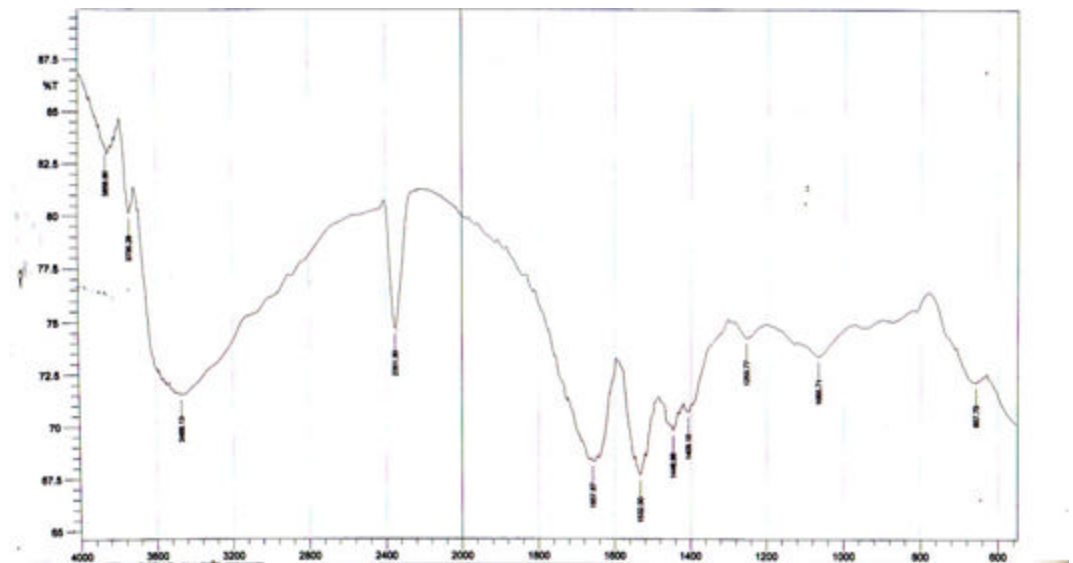
Machine Serial No.	20014
Load Cell Serial No.	9974001
Load Cell Capacity (g)	5000
Load Cell Cal. Date	24 Jun 2006, 04:26:27
Load Cell Gain	92.30800
Force Filter	10 Hz

Results

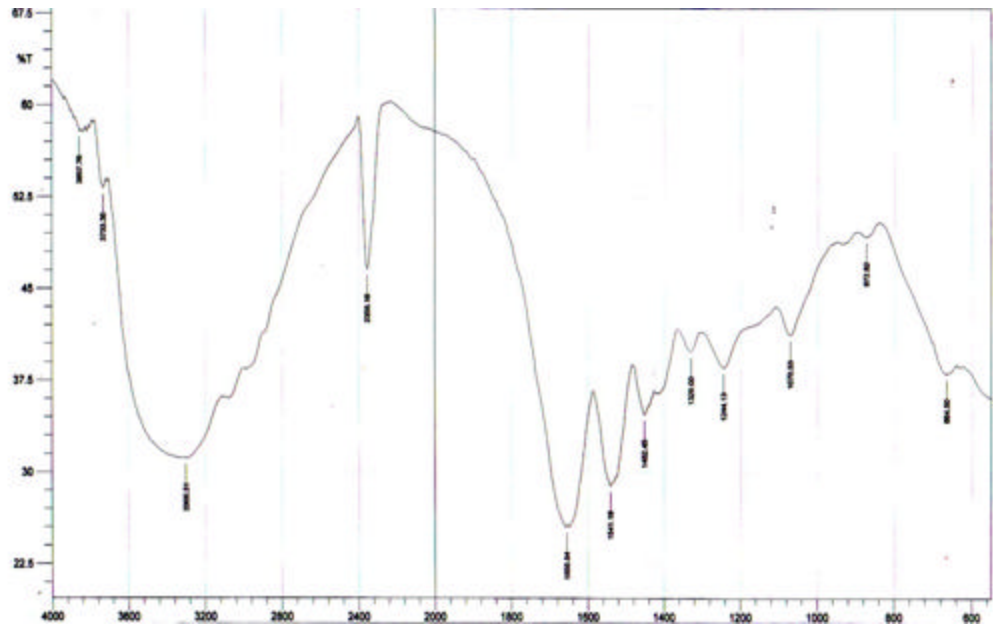
Positive Peak F	3556.1 g
Negative Peak F	-0.0 g
Positive Area (FT)	5383.21 g.s
Negative Area (FT)	0.28 g.s
Area to +Peak (FT)	2050.23 g.s
Positive Peak D	2.9 mm
Separation Distance	-- mm
Force at Target	2962.7 g
Gradient to Peak (FT)	2432.05 g/s
Force at X	3533.3 g
Mean Force	-- g
Peak Force	1000.5 g



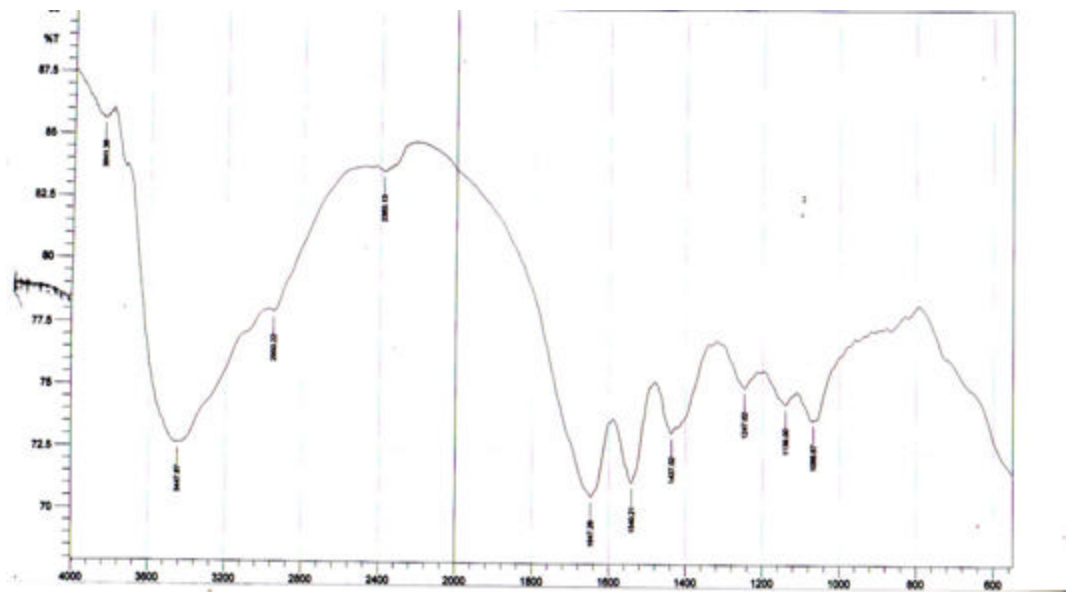
Lampiran 8b. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 1, 70°C, 7 Hari



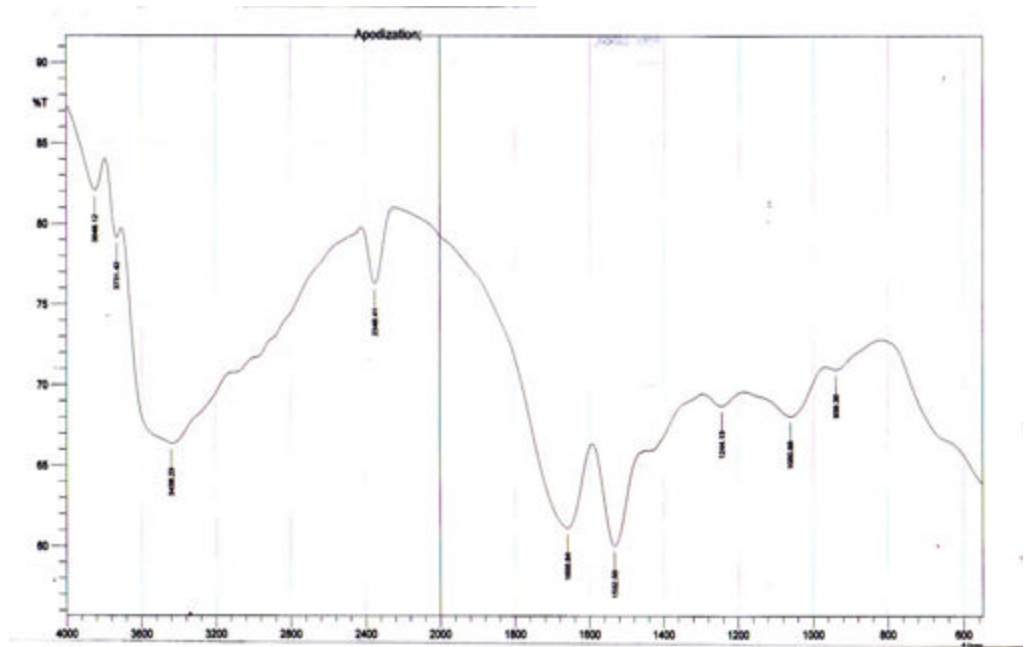
Lampiran 9a. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 1, 90°C, 7 Hari



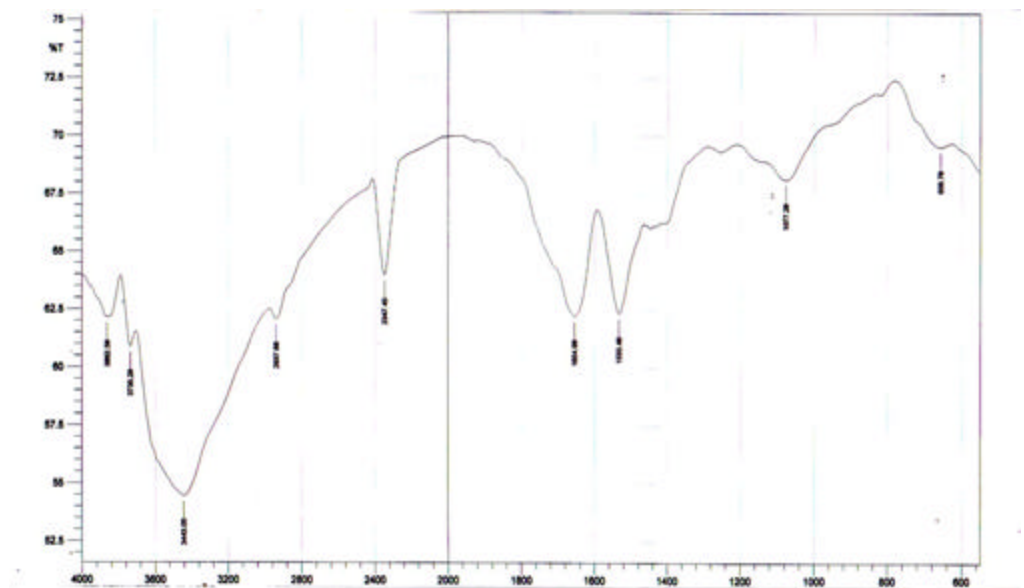
Lampiran 9b. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 3, 70°C, 7 Hari



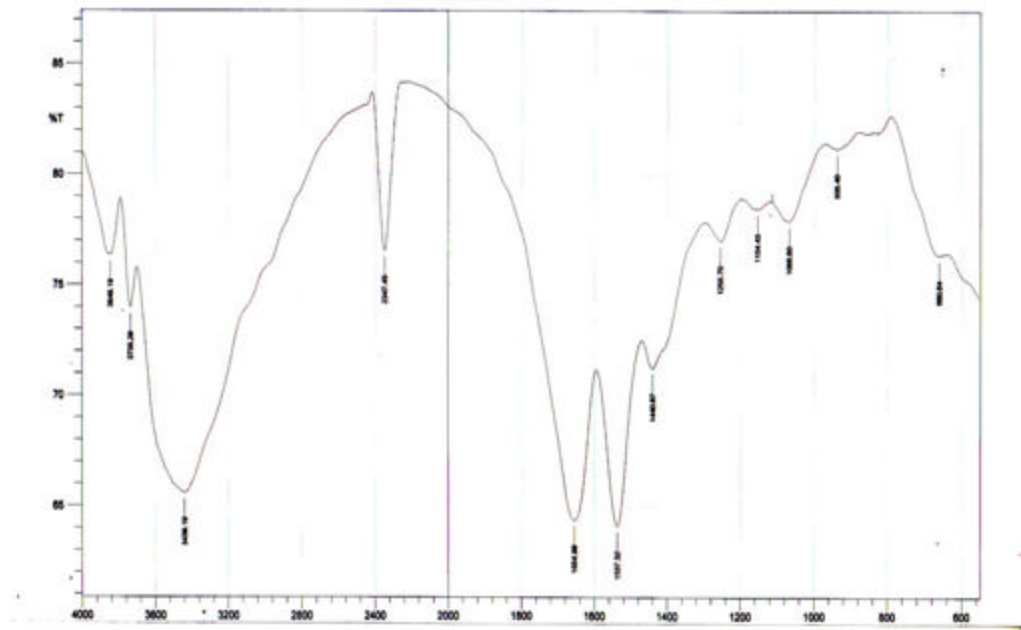
Lampiran 10a. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 3, 90°C, 7 Hari



Lampiran 10b. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 4, 70°C, 7 Hari



Lampiran 11. Spektrum IR Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*) pada pH 4, 90°C, 7 Hari



Lampiran 12a. Hasil Analisis Proksimat Tulang Ikan Kakap Merah (%) bb

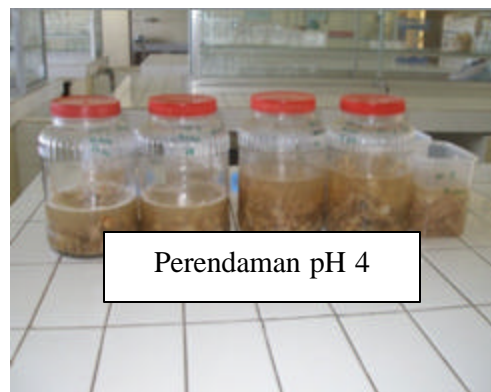
Sampel	Tulang ikan segar	Tulang ikan	Gelatin tulang ikan
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		kering	kakap
Kadar air	56,22	12,58	10,37
Kadar abu	19,22	41,26	3,26
Kadar protein	18,54	16,55	70,15

Lampiran 12.b. Hasil Pengukuran Titik Gel dan Titik Leleh Gelatin Tulang Ikan Kakap Merah

Sampel	Titik gel (°C)	Titik leleh (°C)
Gelatin standar	1,4	15,8
Gelatin tulang ikan keras	9,0	23,2

Lampiran 13. Proses Perendaman dan Ekstraksi Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*)



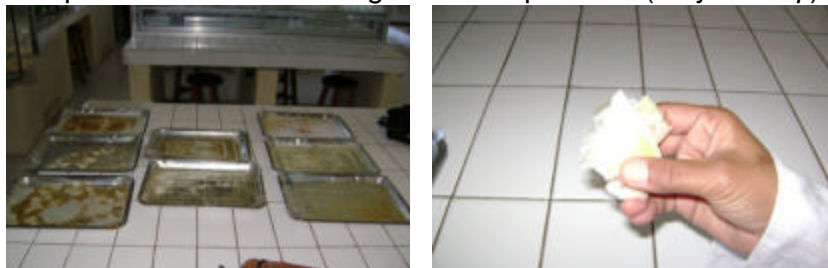
Lampiran 14a. Proses penyaringan ekstrak gelatin dari tulang ikan kakap merah (*Lutjanus sp*)



Lampiran 14b. Proses pengeringan gelatin dari tulang ikan kakap merah (*Lutjanus sp*)



Lampiran 15. Gelatin Tulang Ikan Kakap Merah (*Lutjanus sp*)





Lampiran 16. Alat TA XTEExpress untuk Mengukur Kekuatan Gel Gelatin

Tulang Ikan Kakap Merah (*Lutjanus sp*)



TA XTE Express

ABSTRAK