

LAMPIRAN

Dokumentasi kegiatan penelitian hasil pengujian



(a)



(b)

Gambar 1 Pengumpulan piston bekas sebagai bahan komposit



(a)



(b)

Gambar 2. Proses penjemuran abu dasar batu bara



(a)

(b)

Gambar 3. (a) proses menimbang bahan eletroless plating

(b) proses pengadukan dengan menggunakan kompor magnetik



(a)



(b)



(c)

(d)

Gambar 4. (a) proses pengadukan coran dengan metode stiring casting
(b) proses menuangkan bahan kedalam cetakan dengan menggunakan gravity casting
(c) proses pelepasan bahan pada cetakan
(d) pengukuran suhu pada proses pengecoran



(a)

(b)



(c)

- Gambar 5.
- a. Proses memasukan benda kerja ke tungku / homogenizing
 - b. Proses mengatur suhu tungku
 - c. benda kerja yang telah melalui homogenizing dan didinginkan pada suhu ruang



Gambar 6. Proses pemotongan benda kerja



(a)



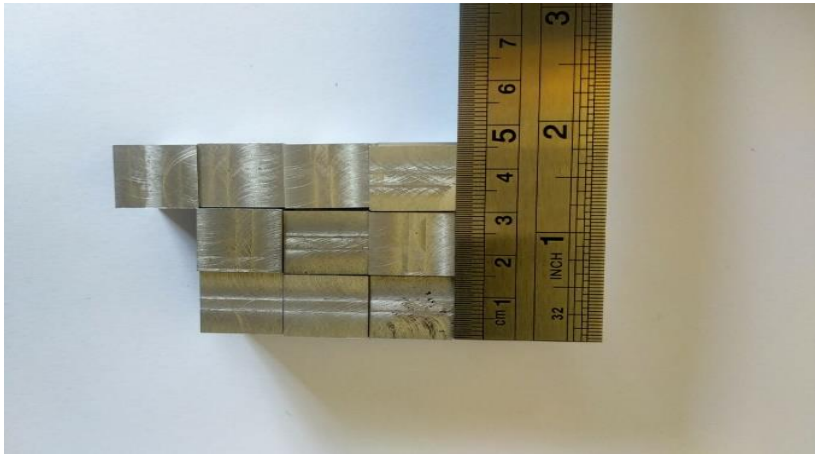
(b)

Gambar 7. (a) proses pemanasan sebelum pressing

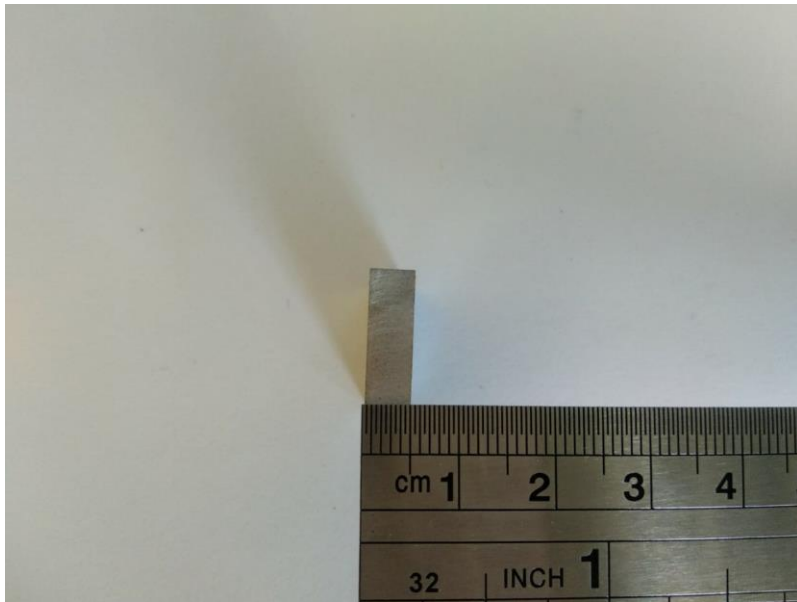
(b) Proses pressing



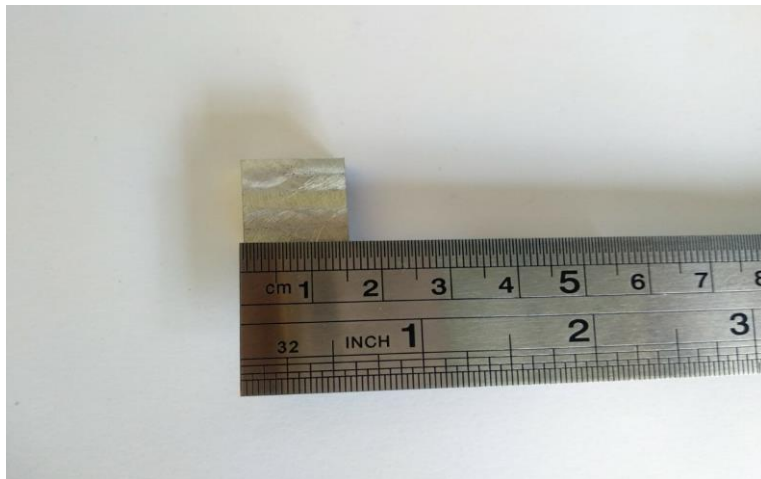
Gambar 8. Pembuatan spesime



(a)



(b)

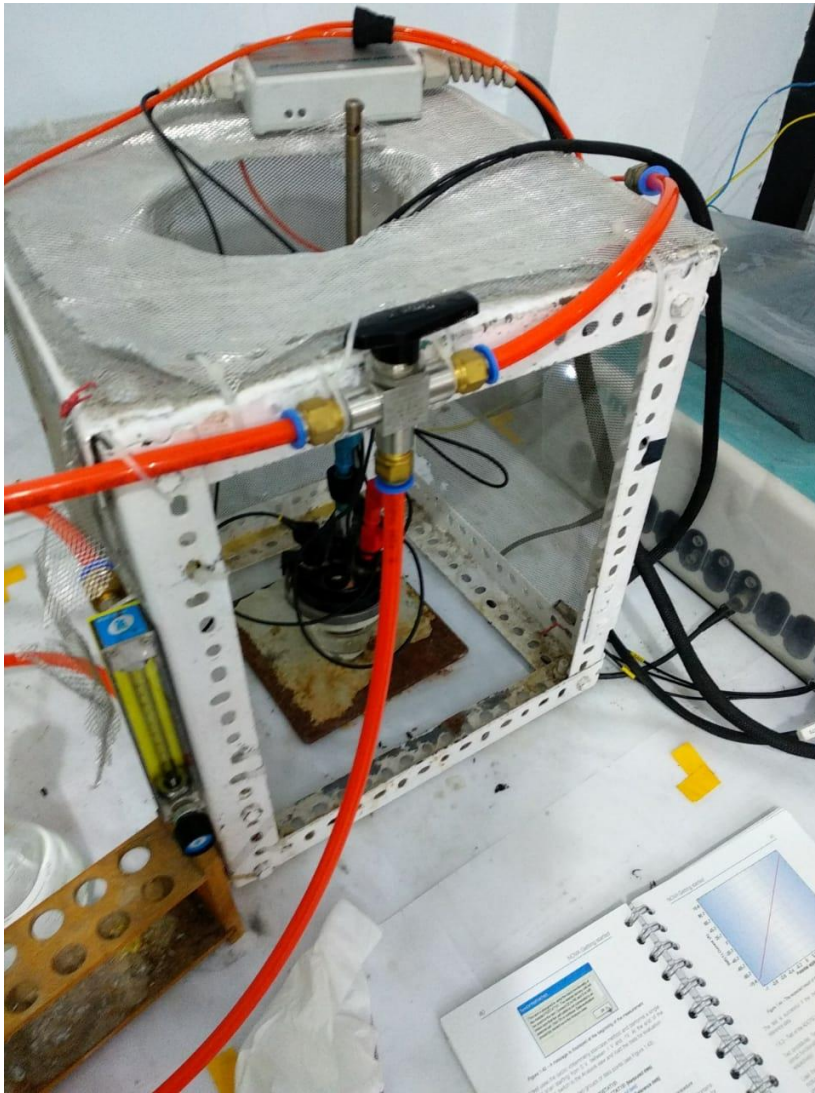


(c)

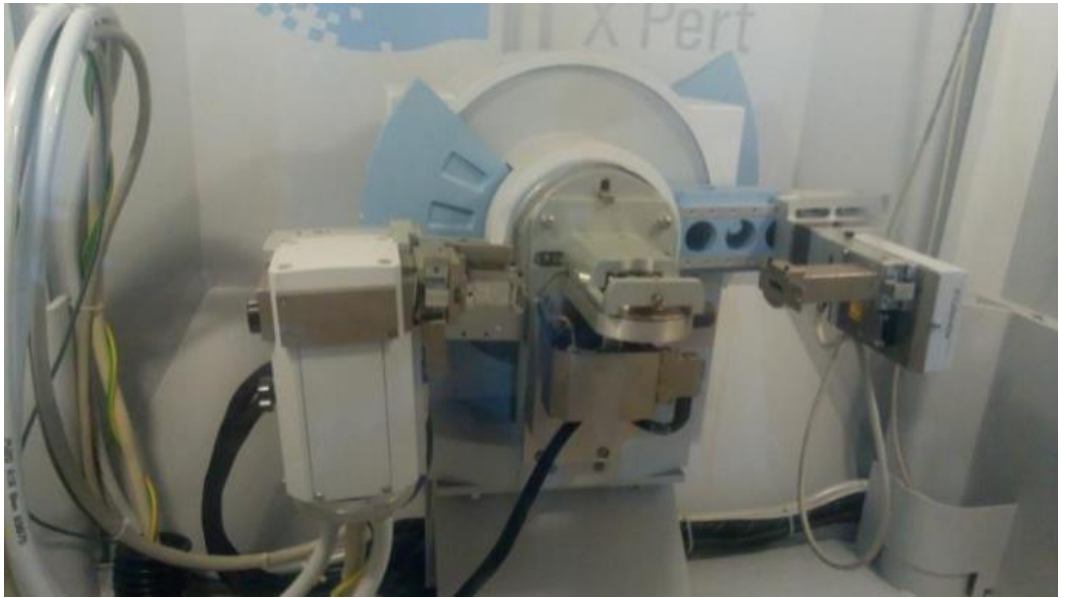


(d)

- Gambar 9.
- (a) tampak spesimen dari atas
 - (b) tampak spesimen dari samping
 - (c) ukuran ketebalan spesimen
 - (d) ukuran panjang dan lebar spesimen



Gambar 10. Alat uji polarisasi



Gambar 11. Alat pengujian XRD

Gambar 12. Hasil pengujian XRD dan polarisasi

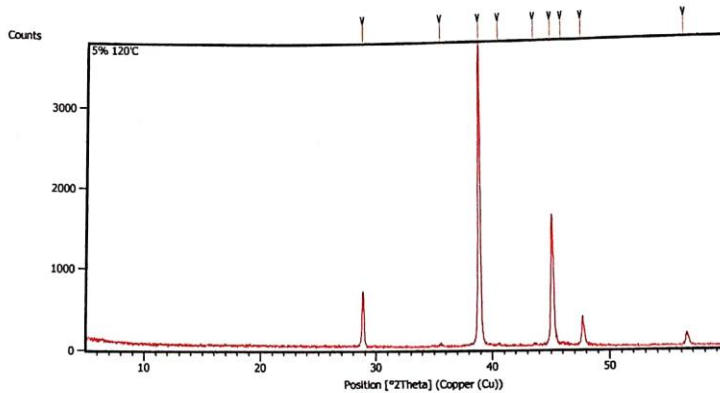
This is the simple example template containing only headers for each report item and the bookmarks. The invisible bookmarks are indicated by text between brackets.
Modify it according to your own needs and standards.

Measurement Conditions: (Bookmark 1)

Dataset Name	15% 100°C
File name	E:\DATA PENGUJIAN\Pengujian 2019\Mei\M.Abdillah\15%
100°C\15% 100°C.rd	
Comment	Configuration=Reflection-Transmission Sp Goniometer=PW3050/60 (Theta/Theta); Mini
Measurement Date / Time	6/9/2019 3:21:00 PM
Raw Data Origin	PHILIPS-binary (scan) (.RD)
Scan Axis	Gonio
Start Position [°2Th.]	5.0084
End Position [°2Th.]	59.9864
Step Size [°2Th.]	0.0170
Scan Step Time [s]	10.1500
Scan Type	Continuous
Offset [°2Th.]	0.0000
Divergence Slit Type	Fixed
Divergence Slit Size [°]	0.2500
Specimen Length [mm]	10.00
Receiving Slit Size [mm]	12.7500
Measurement Temperature [°C]	-273.15
Anode Material	Cu
K-Alpha1 [Å]	1.54060
K-Alpha2 [Å]	1.54443
K-Beta [Å]	1.39225
K-A2 / K-A1 Ratio	0.50000
Generator Settings	30 mA, 40 kV
Diffraction Type	XPert MPD
Diffraction Number	1
Goniometer Radius [mm]	200.00
Dist. Focus-Diverg. Slit [mm]	91.00
Incident Beam Monochromator	No
Spinning	No

Main Graphics, Analyze View: (Bookmark 2)



**Peak List:** (Bookmark 3)

Pos. [°2Th.]	Height [cts]	FWHM Left [°2Th.]	d-spacing [Å]	Rel. Int. [%]
28.8375	648.26	0.1338	3.09605	17.55
35.5838	30.29	0.2676	2.52302	0.82
38.8569	3694.06	0.1673	2.31770	100.00
40.5617	20.02	0.2007	2.22414	0.54
43.5855	17.32	0.2676	2.07660	0.47
45.0668	1468.93	0.1506	2.01173	39.76
45.9648	37.02	0.2007	1.97449	1.00
47.6775	359.30	0.0836	1.90749	9.73
56.4855	168.12	0.1171	1.62917	4.55

Pattern List: (Bookmark 4)**Document History:** (Bookmark 5)

Insert Measurement:

- File name = 5% 120°C.rd
- Modification time = "6/10/2019 3:09:35 PM"
- Modification editor = "Teknik Material"

Interpolate Step Size:

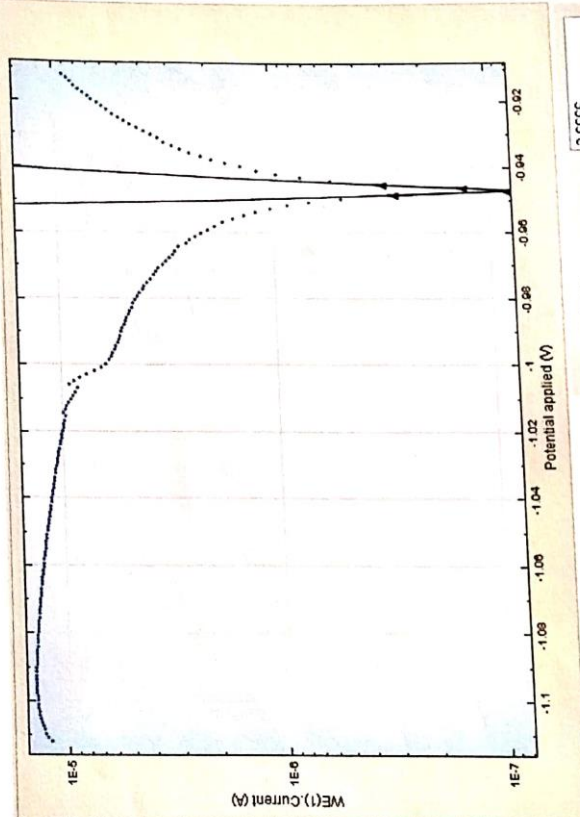
- Derived = "Yes"
- Step Size = "0.01"
- Modification time = "6/10/2019 3:09:35 PM"
- Modification editor = "PANalytical"



Hasil Analisa Polarisasi Linier – Potensioostat Autolab (PGSIA130ZIN)

Nama Sample : 10% 120C 2
 Larutan elektrolit : NaCl 3.5%

PL 5% 120C 1 (AUT84270, 12/17/2018 11:17:07 AM)
 PL 5% 120C 2 (AUT84270, 12/17/2018 11:24:32 AM)
 PL 5% 120C 3 Run 2 (AUT84270, 12/17/2018 11:40:00 AM)
 PL 10% 100C 1 (AUT84270, 12/17/2018 11:48:03 AM)
 PL 10% 100C 2 (AUT84270, 12/17/2018 11:55:14 AM)
 PL 10% 100C 3 (AUT84270, 12/17/2018 12:03:56 PM)
 PL 10% 110C 1 (AUT84270, 12/17/2018 12:11:09 PM)
 PL 10% 110C 2 (AUT84270, 12/17/2018 12:20:21 PM)
 PL 10% 110C 3 (AUT84270, 12/17/2018 12:27:47 PM)
 PL 10% 120C 3 (AUT84270, 12/17/2018 12:35:18 PM)
 PL 10% 120C 2 (AUT84270, 12/17/2018 12:43:54 PM)
 OCP determination
 OCP value = -1.012
 LSV staircase
 Log(I) vs E
 Corrosion rate (R)
 ba (V/dec) = 19.2250 mV/dec
 bc (V/dec) = 23.3450 mV/dec
 Ecorr. Calc (V) = -947.210 mV
 Ecorr. Obs (V) = -947.010 mV
 jcorr (A/cm²) = 262.030 nA/cm²
 icorr (A) = 888.400 nA
 Corrosion rate (mm/year) = 0.006289
 Polarization resistance (R_p) = 5.15390 kΩ
 E Begin (V) = -948.490 mV
 E End (V) = -945.280 mV
 R² = 2.0296E-16
 Iterations = 90



Density (g/cm ³)	2.6666
Equivalent weight (g/mol)	23.96228105
Surface area (cm ²)	3.15



