



KEMENTERIAN RISET TEKNOLOGI DAN PENDIDIKAN TINGGI
UNIVERSITAS DIPONEGORO

UPT LABORATORIUM TERPADU

Jalan Prof. Soedarto, SH Tembalang Semarang Kotak Pos 1269
Telepon (024) 76918147- Faksimile (024) 76918148, Website : <http://labterpadu.undip.ac.id>;
E-mail : labterpadu@live.undip.ac.id

SURAT KETERANGAN HASIL ANALISIS SAMPEL

Kode sampel : SP-XII-634
Nama Pemesan : Patma Juliana
Alamat : Politeknik Negeri Samarinda
Jenis Analisis : Analisis SEM EDX
Jenis sampel : Serbuk

Hasil analisis adalah sebagai berikut:

No	Nama Sampel	Komponen	Komposisi (% berat)
1	1:2 Cao atau ZnCl ₂	Karbon, C	17,56
		Klorida, Cl	22,39
		Kalsium Oksida, CaO	18,64
		Tembaga (II) Oksida, CuO	1,26
		Zink Oksida, ZnO	37,78
		Zirkonium Dioksida, ZrO ₂	2,37
2	11 % CaO atau KOH	Karbon, C	25,91
		Magnesium Oksida, MgO	1,22
		Kalium Oksida, K ₂ O	41,72
		Kalsium Oksida, CaO	31,15

Untuk citra morfologi permukaan dengan perbesaran 3.000x, Hasil lengkap terlampir.
Catatan:

Laboratorium Terpadu Universitas Diponegoro Semarang tidak bertanggungjawab terhadap penyalahgunaan hasil analisis. Hasil analisis tersebut hanya berlaku untuk sampel yang dikirimkan ke Laboratorium Terpadu Universitas Diponegoro Semarang

Semarang, 11 Desember 2018

Ketua Bidang Pengujian dan Sertifikasi


Dr. Meiny Suzery, MS.
NIP. 196005101989032001



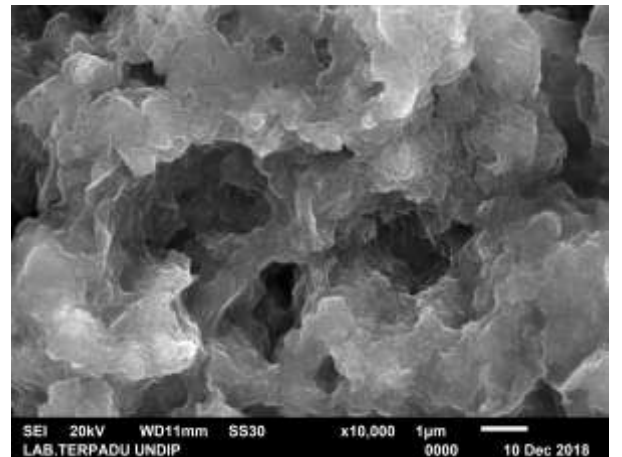
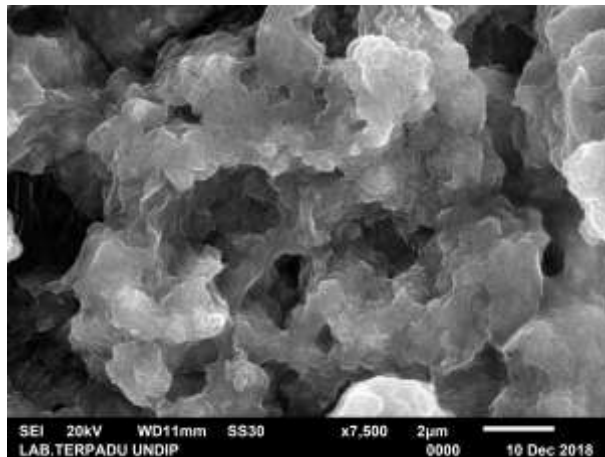
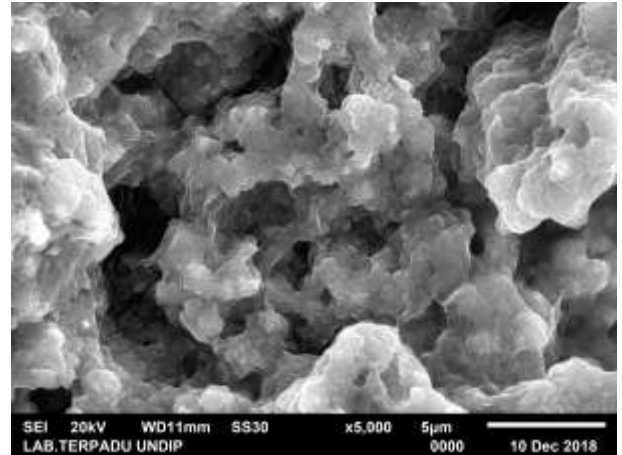
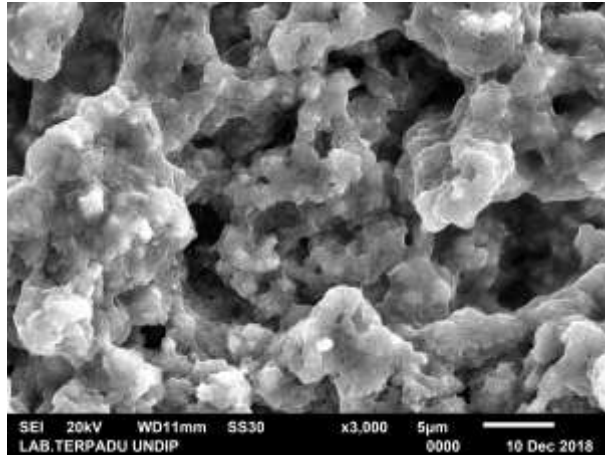
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Hasil Uji Citra SEM sbb:

1:2 CaO atau ZnCl_2





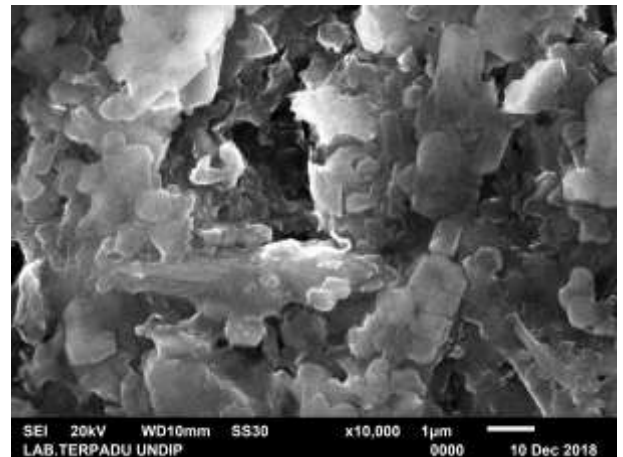
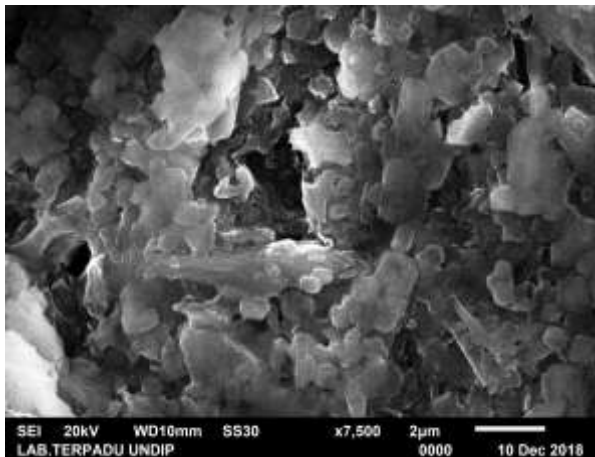
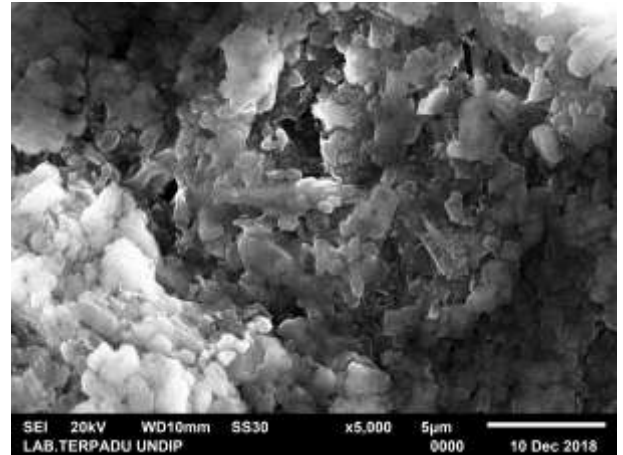
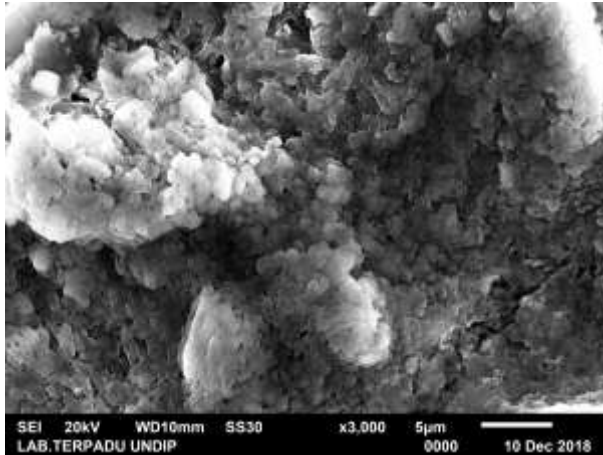
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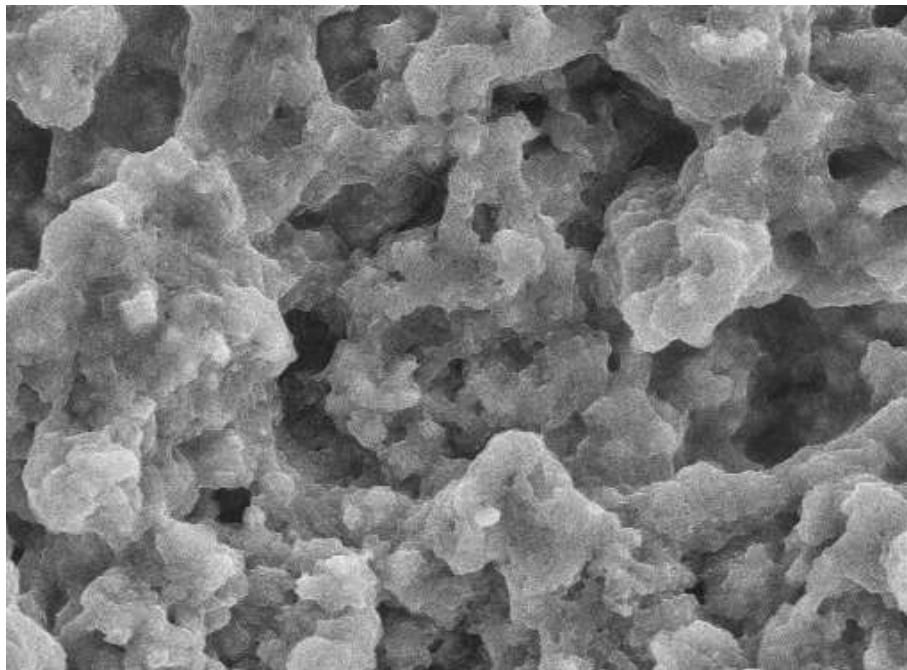
Hasil Uji Citra SEM sbb:

11 % CaO atau KOH



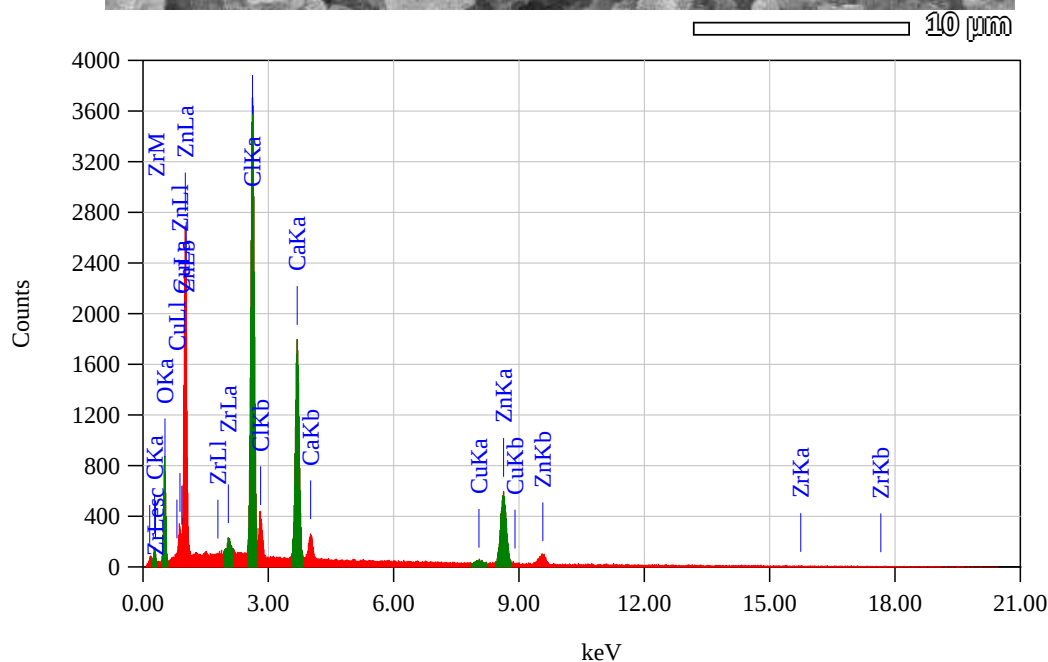


Hasil Analisis EDX
1:2 CaO atau ZnCl₂



Title : IMG1

Instrument : 6510 (LA)
Volt : 20.00 kV
Mag. : x 3,000
Date : 2018/12/10
Pixel : 512 x 384



Acquisition Parameter
Instrument : 6510 (LA)
Acc. Voltage : 20.0 kV
Probe Current: 1.00000 nA
PHA mode : T3
Real Time : 51.51 sec
Live Time : 50.00 sec
Dead Time : 2 %
Counting Rate: 3188 cps
Energy Range : 0 - 20 keV

ZAF Method Standardless Quantitative Analysis (Oxide)

Fitting Coefficient : 0.0182

Total Oxide : 24.0

Element	(keV)	Mass%	Sigma	Mol%	Compound	Mass%	Cation	K
C K	0.277	17.56	0.45	49.98	C	17.56	0.00	2.2236
O		13.61						
Cl K	2.621	22.39	0.17	21.58	Cl	22.39	0.00	33.9016
Ca K	3.690	13.33	0.20	11.37	CaO	18.64	9.38	18.7846
Cu K	8.040	1.01	0.12	0.54	CuO	1.26	0.45	1.3804
Zn K	8.630	30.36	0.58	15.87	ZnO	37.78	13.09	41.7808
Zr L	2.042	1.75	0.12	0.66	ZrO2	2.37	0.54	1.9290
Total		100.00		100.00		100.00	23.46	

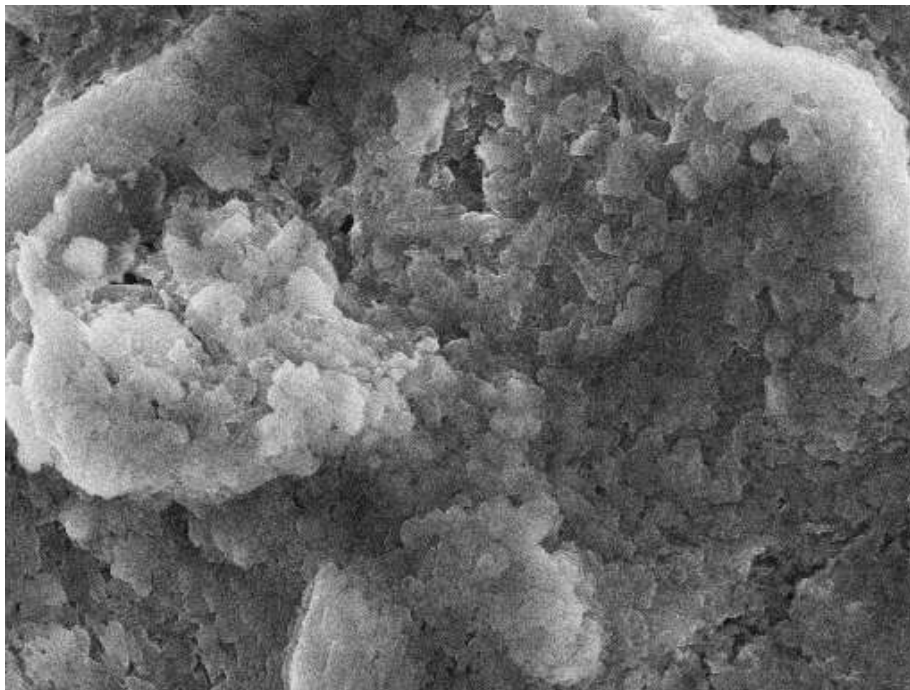


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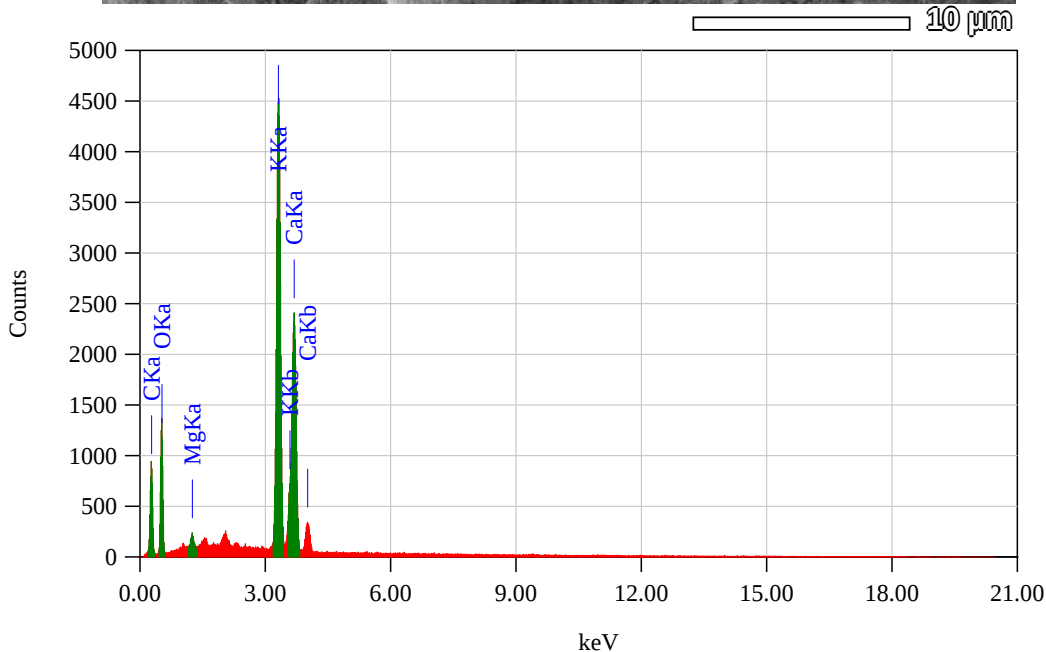
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**Hasil Analisis EDX
11% CaO atau KOH**



Title : IMG1

Instrument : 6510 (LA)
Volt : 20.00 kV
Mag. : x 3,000
Date : 2018/12/10
Pixel : 512 x 384



Acquisition Parameter
Instrument : 6510 (LA)
Acc. Voltage : 20.0 kV
Probe Current: 1.00000 nA
PHA mode : T3
Real Time : 51.44 sec
Live Time : 50.00 sec
Dead Time : 2 %
Counting Rate: 3114 cps
Energy Range : 0 - 20 keV

ZAF Method Standardless Quantitative Analysis (Oxide)

Fitting Coefficient : 0.0267

Total Oxide : 24.0

Element	(keV)	Mass%	Sigma	Mol%	Compound	Mass%	Cation	K
C K	0.277	25.91	0.05	67.71	C	25.91	0.00	20.2026
O		16.46						
Mg K	1.253	0.74	0.05	0.95	MgO	1.22	0.71	0.5924
K K	3.312	34.63	0.15	13.90	K2O	41.72	20.66	51.6113
Ca K	3.690	22.27	0.16	17.44	CaO	31.15	12.96	27.5936
Total		100.00		100.00		100.00	34.33	