

DAFTAR PUSTAKA

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LAMPIRAN

Lampiran 1. Alat, Bahan dan Prosedur Penelitian

1. Alat Penelitian



Retch GmbH MM
400



Neraca Analitik
Jeulin



Arec Heating
Magnetic Stirrer



Magnetic bar



Spatula besi



Pengaduk kaca



Jarum suntik



Gelas Ukur 50
ml



Busa polistirena



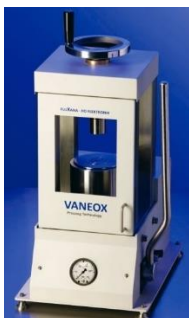
Wadah plastik



Gelas Ukur 1000
mL



Multimeter
digital DT9205A



Fluxana Vaneox
Press 25t



Shimadzu XRD-
7000 MAXima



Shimadzu IRPrestige-21

2. Bahan Penelitian



Serbuk Cu



Serbuk Zn



Aquades



Kalium Hidroksida



Karbon Konduktif

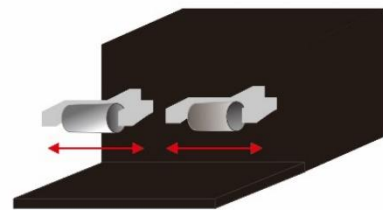


Polyvinyl Alcohol

3. Prosedur Penelitian



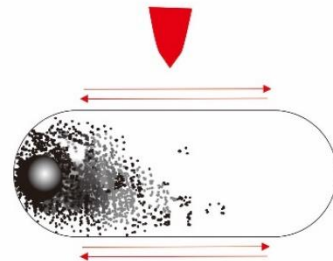
Serbuk Cu atau Zn dimasukkan ke dalam tabung



Penggiliran frekuensi (Hz) 1/s variasi waktu 0,5, 1, 2, 4, 8, 16, 20, 28, 32 dan 48 jam

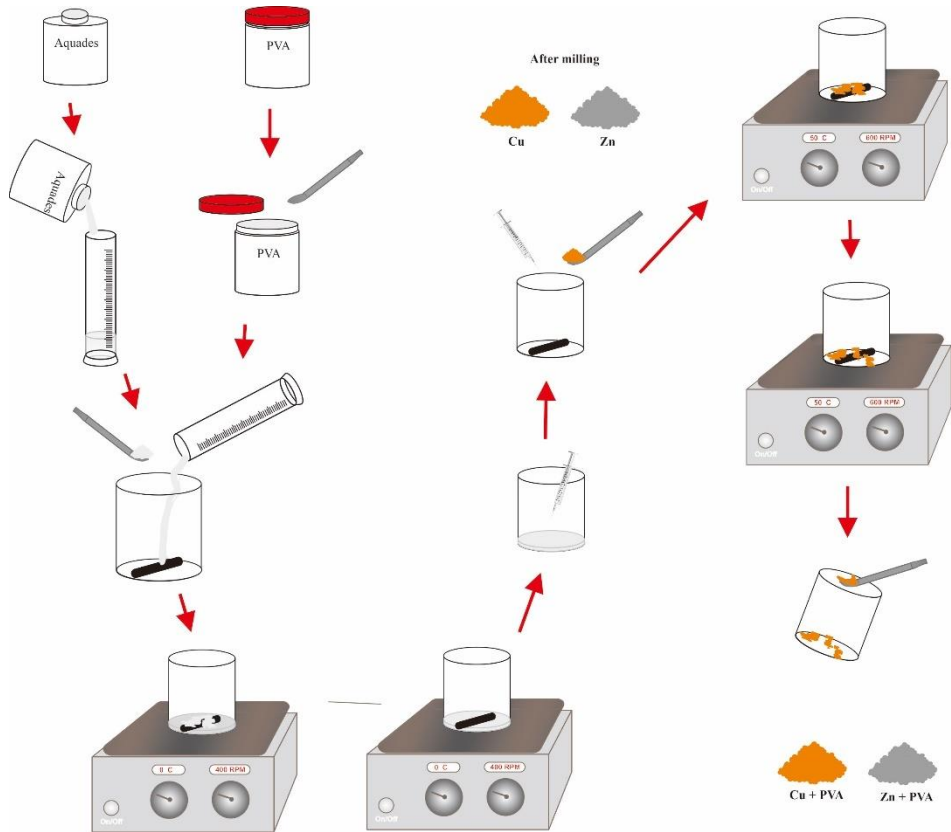


Serbuk Cu atau Zn setelah beberapa waktu penggiliran

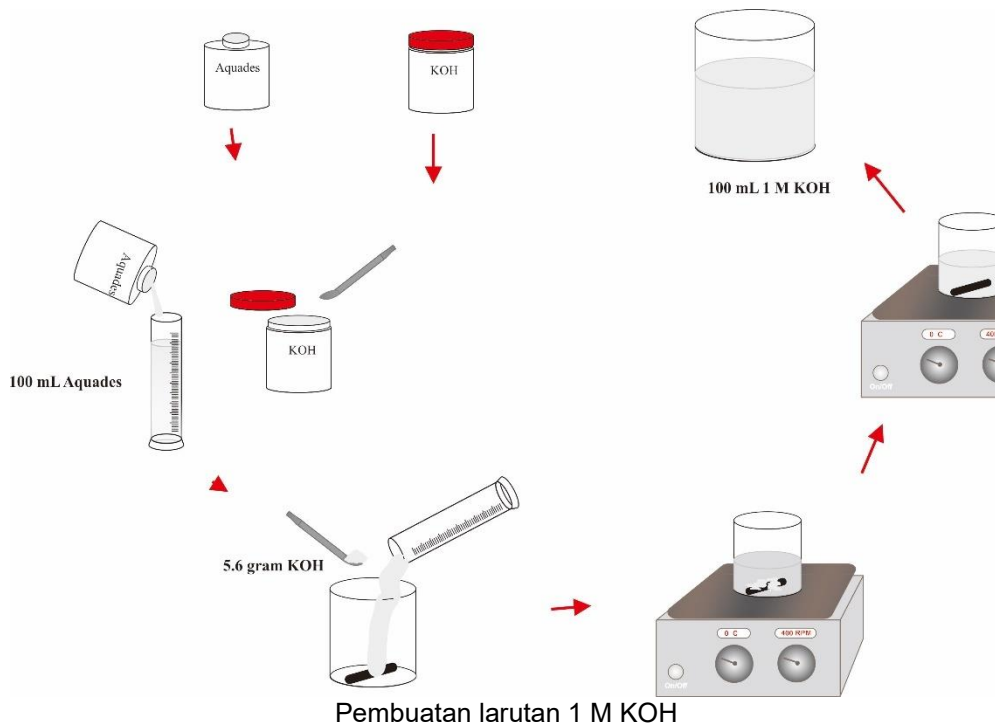


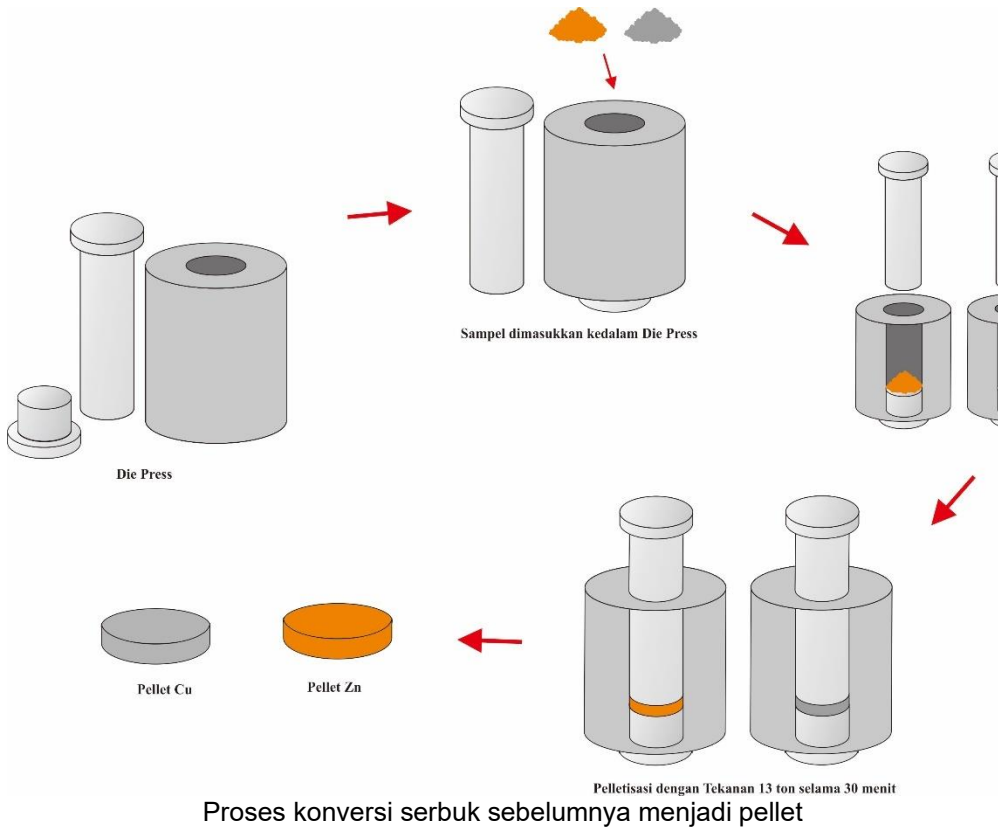
Tumbukan antara bola dengan serbuk secara horizontal

Penggiliran Mekanik



Pencampuran serbuk hasil penggilingan dengan perekat PVA



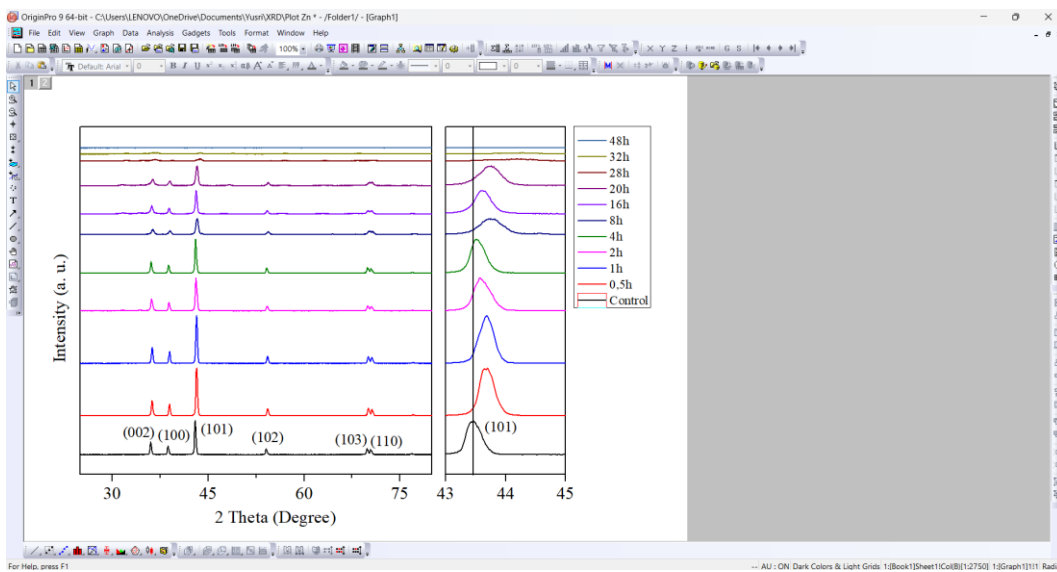
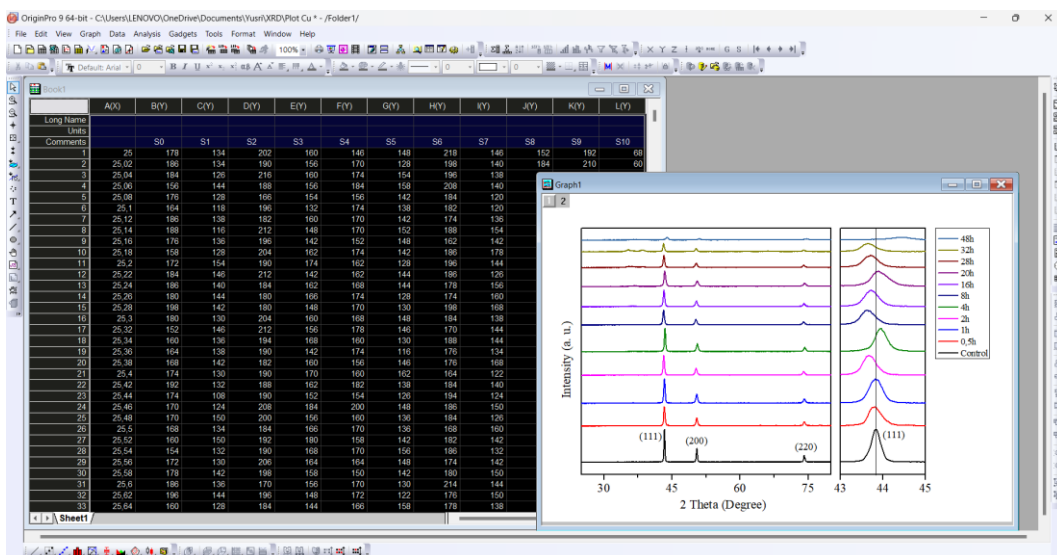


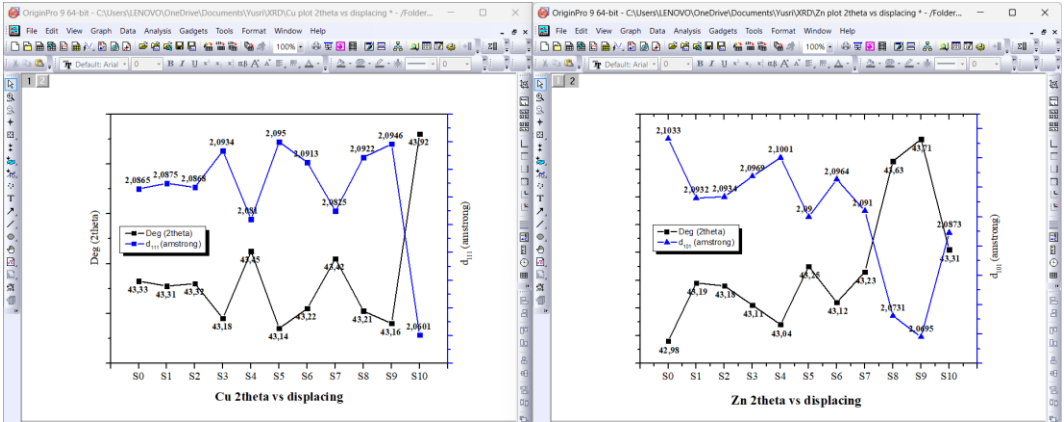
Lampiran 2. Analisis data Karakterisasi



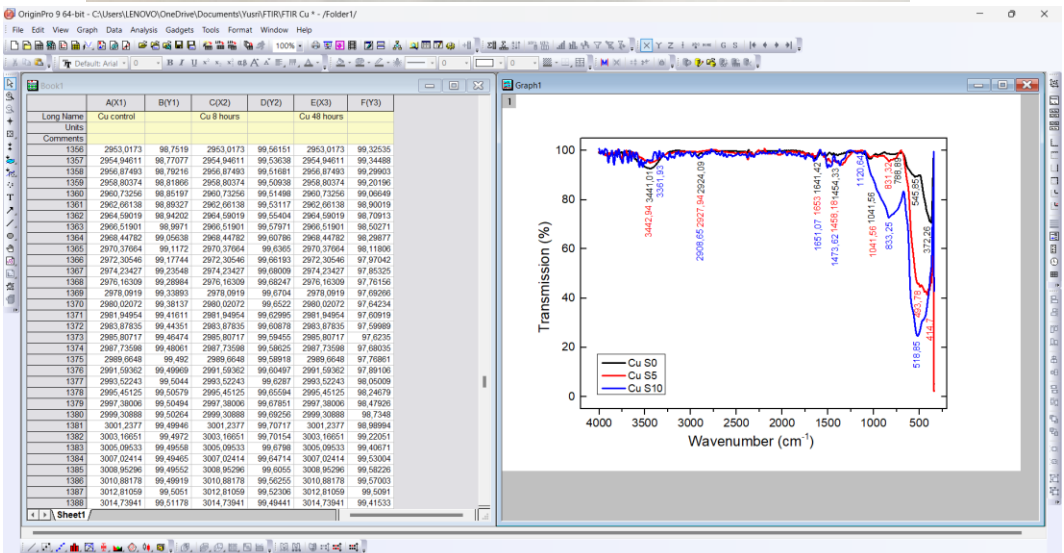


Analysis Data XRD





Analisis FTIR



Lampiran 3. Analisis Uji Performa Baterai



Data Tegangan

Waktu	1 cm					2 cm					3 cm					
	Cu S0 + Zn S0	Cu S0 + Zn S7	Cu S10 + Zn S0	Cu S10 + Zn S7	Cu S0 + Zn S0	Cu S0 + Zn S7	Cu S10 + Zn S0	Cu S10 + Zn S7	Cu S0 + Zn S0	Cu S0 + Zn S7	Cu S10 + Zn S0	Cu S10 + Zn S7	Cu S0 + Zn S0	Cu S0 + Zn S7	Cu S10 + Zn S0	Cu S10 + Zn S7
10	0,697	0,685	0,61	0,588	0,667	0,561	0,586	0,516	0,65	0,543	0,589	0,375				
20	0,75	0,79	0,717	0,61	0,759	0,625	0,679	0,594	0,736	0,63	0,651	0,48				
30	0,845	0,835	0,783	0,644	0,82	0,684	0,728	0,628	0,797	0,692	0,69	0,544				
40	0,857	0,845	0,824	0,666	0,842	0,743	0,731	0,669	0,804	0,74	0,738	0,688				
50	0,859	0,855	0,856	0,805	0,854	0,76	0,759	0,784	0,811	0,782	0,776	0,758				
60	0,87	0,856	1,081	0,865	0,855	0,787	0,796	0,835	0,824	0,802	0,791	0,783				
70	0,873	0,856	1,033	0,874	0,864	0,798	0,802	0,856	0,839	0,813	0,801	0,802				
80	0,875	0,857	0,853	0,874	0,865	0,805	0,815	0,867	0,843	0,822	0,809	0,811				
90	0,887	0,859	0,776	0,876	0,882	0,81	0,875	0,897	0,844	0,83	0,817	0,814				
100	1,09	0,785	0,743	0,724	0,825	0,702	0,645	0,585	0,64	0,612	0,653	0,506				
110	0,827	0,801	0,783	0,751	0,848	0,743	0,674	0,639	0,778	0,713	0,724	0,575				
120	0,832	0,815	0,809	0,794	0,855	0,763	0,683	0,674	0,799	0,747	0,743	0,656				
130	0,832	0,822	0,812	0,833	0,86	0,781	0,735	0,718	0,809	0,772	0,78	0,691				
140	0,833	0,825	0,819	0,834	0,863	0,801	0,766	0,738	0,817	0,804	0,795	0,734				
150	0,835	0,828	0,825	0,844	0,865	0,812	0,788	0,804	0,823	0,806	0,804	0,775				
160	0,837	0,83	0,825	0,847	0,866	0,829	0,809	0,824	0,826	0,807	0,809	0,804				
170	0,848	0,828	0,826	0,859	0,866	0,833	0,829	0,846	0,826	0,808	0,814	0,815				
180	0,849	0,828	0,83	0,86	0,87	0,835	0,837	0,857	0,825	0,81	0,815	0,818				
190	0,838	0,85	0,824	0,808	0,784	0,775	0,765	0,721	0,716	0,732	0,678	0,68				
200	0,83	0,857	0,845	0,828	0,834	0,802	0,782	0,775	0,739	0,76	0,732	0,712				
210	0,832	0,85	0,847	0,834	0,844	0,814	0,797	0,783	0,759	0,775	0,761	0,74				
220	0,835	0,844	0,847	0,841	0,852	0,823	0,806	0,793	0,775	0,788	0,774	0,773				
230	0,842	0,845	0,847	0,865	0,858	0,834	0,81	0,804	0,787	0,797	0,781	0,791				
240	0,83	0,845	0,844	0,865	1,094	0,848	0,814	0,812	0,795	0,801	0,788	0,796				
250	0,829	0,846	0,841	0,851	1,084	0,851	0,819	0,826	0,799	0,804	0,79	0,804				
260	0,825	0,844	0,839	0,854	1,067	0,853	0,825	0,836	0,8	0,805	0,792	0,809				
270	0,824	0,844	0,836	0,857	0,92	0,854	0,825	0,849	0,801	0,805	0,793	0,811				

Alur Penelitian

