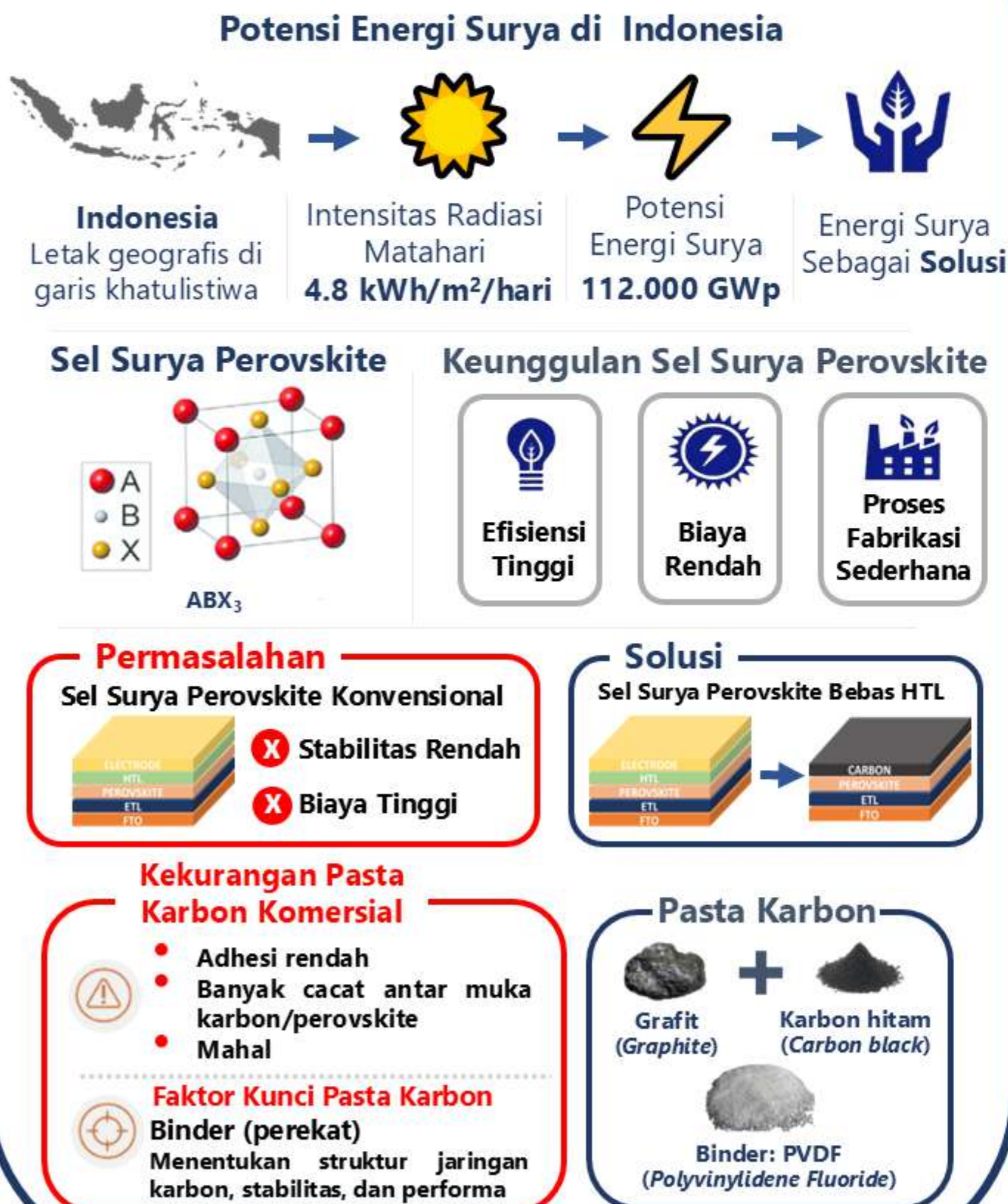


Pengembangan Pasta Karbon Berbasis PVDF (*Polyvinylidene Fluoride*) Untuk Aplikasi Elektroda Sel Surya Perovskite



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1 Latar Belakang

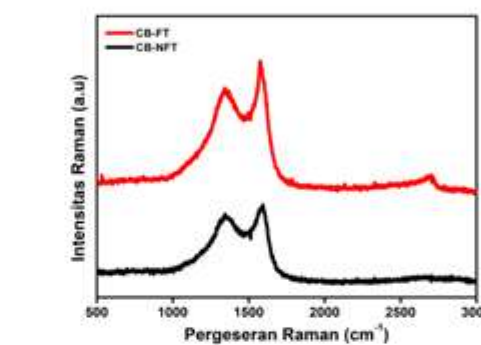


2 Metode



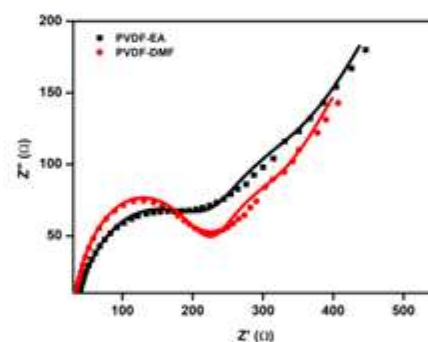
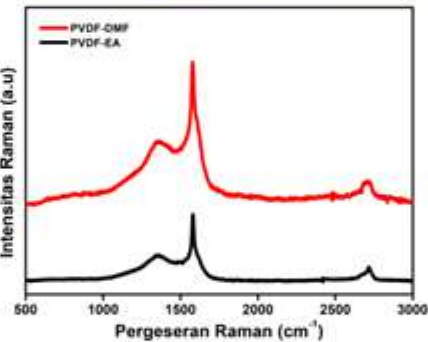
3 Hasil dan Pembahasan

1. Pengaruh Perlakuan Termal Carbon Black



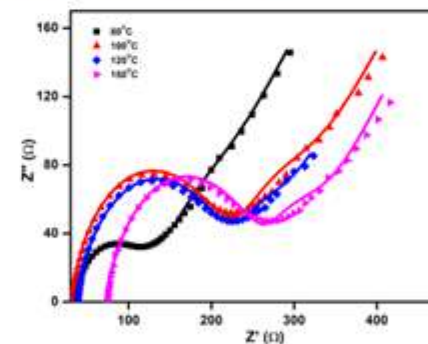
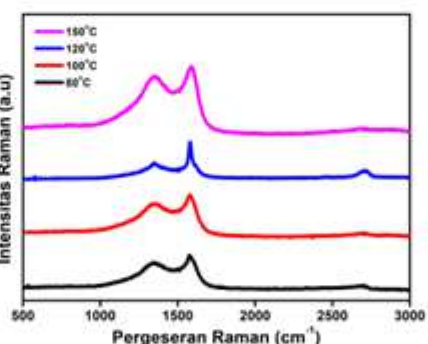
Perlakuan	Resistivitas (Ω/sq)	Konduktivitas (S/cm)
Non Flame Torch	15,1	25,6
Flame Torch	2,7	26,3

2. Pengaruh Pelarut PVDF



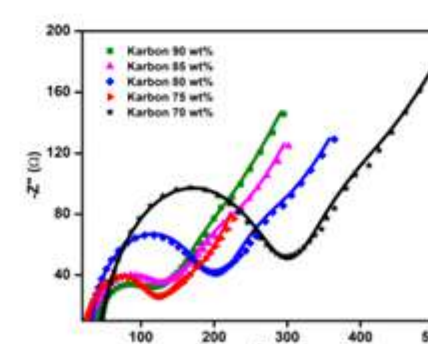
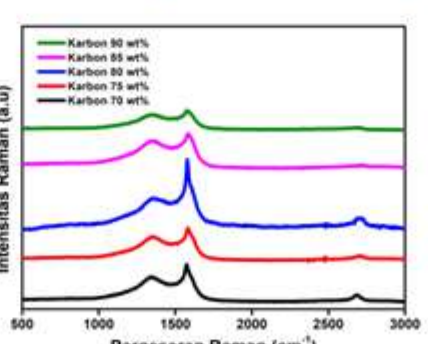
Pelarut	Resistivitas (Ω/sq)	Konduktivitas (S/cm)
Ethyl Acetate	22,9	3,3
DMF	6	21,4

3. Pengaruh Temperatur Annealing



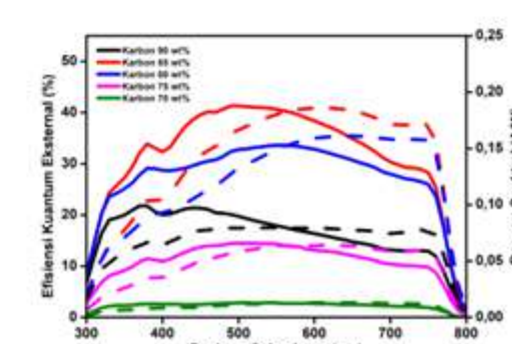
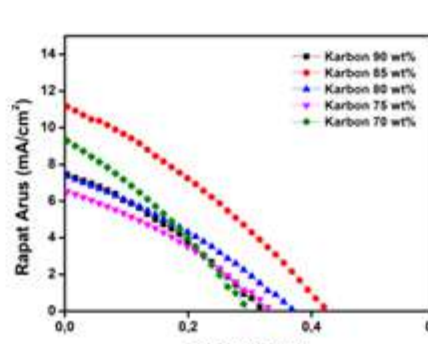
Temperatur (°C)	Resistivitas (Ω/sq)	Konduktivitas (S/cm)
80	2,7	26,3
100	2,4	15,5
120	6,5	8,8
150	6,5	8,8

4. Pengaruh Komposisi Karbon



Komposisi (wt%)	Resistivitas (Ω/sq)	Konduktivitas (S/cm)
70	13,2	13,8
75	5,3	24,3
80	6,0	21,4
85	8,1	21,5
90	2,7	26,3

5. Uji Performa



4 Kesimpulan

Kondisi optimum diperoleh pada kombinasi

- Carbon black yang dibakar
- Temperatur annealing 80°C
- PVDF dengan pelarut DMF
- Komposisi karbon 85 wt%

Performa perangkat terbaik

V_{oc}	J_{sc}	FF	PCE
0,427 V	11,223 mA/cm ²	30,93%	1,48%