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Pengaruh Perlakuan Panas dan Pengaruh Doping Al3+ Pada Struktur dan Morfologi Lapisan BaZr0.1AlxTi0.9-xO3 (x = 0.01 dan 0.03) = Heat Treatment Effect And Doping Effect of Al3+ to Structure and Morphology of BaZr0.1AlxTi0.9-xO3 (x = 0.01 and 0.03) Film

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Abstrak

[ABSTRAK
Lapisan Barium Zirkonnium Titanate akan disintesis menggunakan metode Chemical Solution Deposition kemudian dilanjutkan dengan proses Spin Coating. Pada tahap pertama, material lapisan Barium Zirkonium Titanate akan diberikan variasi perlakuan temperatur, yaitu 150oC, 400oC, 650oC dan 750oC. Kemudian pada tahap kedua, material lapisan Barium Zirkonium Titanate akan didoping dengan ion Alumunium sebanyak 1% dan 3% pada posisi ion Titanium. Berdasarkan pengujian XRD, terlihat puncak intensitas Barium Zirkonium Titanate bertambah seiring bertambah besar perlakuan panas. Pada lapisan Barium Zirkonium Aluminum Titanate, puncak intensitas bergeser ketika doping ion Aluminum dilakukan. Lapisan Barium Zirkonium Titanate dan Barium Zirkonium Aluminum Titanate memiliki struktur kristal kubik perovskite.
Kata
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ABSTRACT
Barium Zirkonium Titanate Film was synthesized using sol-gel method, followed by Spin coating method. Stage 1, Barium Zirkonium Titanate film was given various heat treatment 150oC, 400oC, 650oC, and 750oC. Stage 2, Barium Zirkonium Titanate film was doped by Aluminum ion with the content 1% and 3% to Titanium ion site. Peak intensity was observed in XRD pattern. The increase of intensity related with the increase of temperature. Along with the doping of Aluminum ion in BZT, the peak shifting were observed in som XD pattern. Barium Zirkonium Titanate and Barium Zirkonium Aluminum Titanate film had crystal structure of Cubic perovskite., Barium Zirkonium Titanate Film was synthesized using sol-gel method, followed
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