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 Penulis Jurnal Ilmiah : Muslimin, Adi darmawan, **Retno ariadi Lusiana**

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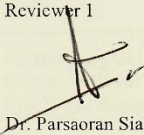
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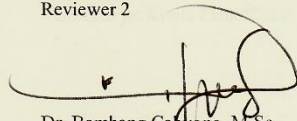
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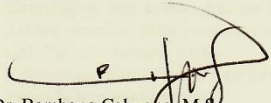
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### SYNTHESIS OF MEMBRANES FROM PILLARED CLAY FECL3 FOR SEAWATER DESALINATION APPLICATION

Muslimin Muslimin, Adi Darmawan, RA. Lusiana

10.21831/j.sainsdasar.v7i1.22260

#### ABSTRACT

Synthesis of membranes has been done using pillared clay FeCl3 for desalination application. Pillared clays FeCl3 were synthesized via a sol-gel method using [OH] / [Fe] 0,25, 0,5, 1, 2, 2,5. Formed colloid was foraine on 60oC for 2 hours. The membranes which were cooled at room temperature for 3 days then tested filtration of seawater. The results showed that mesoporous pillared clay FeCl3 with a ratio [OH] / [Fe] 0,25 reached filtration purity 99,99% with the initial TDS 27,58 ppm and resulted rejection TDS 00,22 ppm after filtration. Membrane with ratio [OH] / [Fe] 0,5 reached filtration purity 90%, with initial TDS 27,58 ppm and resulted rejection TDS 11,76 ppm, while membranes with ratio [OH] / [Fe] 1,2 and 2,5 was broken during the filtration process, its resulted very small rejection.

Keywords: membrane, pillared clay, FeCl3, Seawater desalination

#### KEYWORDS

membrane, pillared clay, FeCl3, Seawater desalination

#### FULL TEXT:

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#### REFERENCES

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Analisis, Termal, LMS, P100 Pajang, Teras, Pradewa, Bali, Maki, Hali, Water, SARMA, Okad, Doyo, Ng and, Teunissen, M, ME, MCT, Katal, Natrium, Aik, Alkohol, Lanjar, Esar, vaner, F-201C, artikulo and, H1, meter, Pterogall, gunung, api, petak, perangkap, Sear, Daak, Oyo, optikus, ukubuluh, kond, spare, energi. This research aims to identify the weaknesses of the mesoporous catalyst based-entrainment based against theoretical efficiency ability of pre-synthetic capacity based on scientific pollution and scientific cooperation in PSEA 2013 through individualization, Kuala Lumpur, Malaysia.

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