Pengembangan fabrikasi lotus type porous material dengan metode slip casting berbahan dasar serbuk tembaga untuk aplikasi sumbu kapiler pada pipa kalor = Development of lotus type porous material fabrication with slip casting method using copper powder as base material for wick application in heat pipe

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Abstrak

[ABSTRAK
Kebutuhan terhadap teknologi baru dalam pipa kalor terus meningkat terutama dalam kemampuan sumbu kapiler mengalirkan fluida. Sebuah biomaterial telah dibuktikan memiliki performa yang baik untuk menjadi bahan dasar sumbu kapiler. Namun, penggunaannya membawa permasalahan tersendiri bagi lingkungan. Oleh karena itu diperlukan material yang dapat meniru atau bahkan melebihi performa dari koral. Lotus-Type Porous Material (LTP) diproyeksikan mampu mengalahkan performa koral. Pada penelitian ini dikembangkan fabrikasi LTP dengan metode slip-casting berbahan dasar serbuk tembaga dan memberikan hasil yang baik. Disamping itu parameter proses untuk menghasilkan LTP yang optimum juga didapatkan.
ABSTRACT
Demands on state of the art technology in heat pipe field rising especially in capillary pumping performance. Prior research concluded biomaterial has superior performance as basic material for capillary wick. However, it was followed by consequences of harnessing the ecosystem. A new material that mimick and exceed the performance of coral will be necessity. Lotus-Type Porous Material (LTP) projected can pass over performance of coral and it is proofed to be true through this research. Besides that, process parameter for fabricating optimum capillary wick with LTP configuration also being concluded.
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