

An ODDISAY System: Process Design Optimization by Using MCD Algorithm

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The increase in computational capabilities has evolved optimization methodology and have a great impact on the application for the industrial use. Modified Coordinate Decent (MCD) methodology is presented in the ODDISAY system to process optimization problems. The MCD algorithm is coded in Visual Basic and exploited for optimization of two process design problems developed in the Aspen HysysTM simulator. This algorithm converges fast, easy handling of control parameters besides the simple implementation. In NG refrigeration process, high refrigerant flow rate and high overall system pressure are the physical cause of intensive energy requirement in base cases that were successfully reduced by the ODDISAY system. This research was supported by a grant from the Gas Plant R&D Center funded by the Ministry of Land, Transportation and Maritime Affairs (MLTM) of the Korean government.