

RESEARCH PAPERS

解析导数及稀疏矩阵技术在大规模过程优化命题中的应用

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**摘要** The performance of analytical derivative and sparse matrix techniques applied to a traditional dense sequential quadratic programming (SQP) is studied, and the strategy utilizing those techniques is also presented. Computational results on two typical chemical optimization problems demonstrate significant enhancement in efficiency, which shows this strategy is promising and suitable for large-scale process optimization problems.

**关键词** [large-scale optimization](#) [open-equation](#) [sequential quadratic programming](#) [analytical derivative](#) [sparse matrix technique](#)

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**Applying Analytical Derivative and Sparse Matrix Techniques to Large-Scale Process Optimization Problems**

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**Key words** [large-scale optimization](#); [open-equation](#); [sequential quadratic programming](#); [analytical derivative](#); [sparse matrix technique](#)

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