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**On the global optimal solution to an integrated inventory system with general time varying demand, production and deterioration rates.** (English) [Zbl 0945.90003](#)

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Summary: In this paper a unified inventory model for integrated production system with a single product is presented. The production, demand and deterioration rates for the finished product and the deterioration rates for raw materials are assumed to be functions of time. A rigorous mathematical proof which shows the global optimality of the solution to the considered inventory system is introduced. A numerical example that illustrates the solution procedure is included.

**MSC:**

[90B05](#) Inventory, storage, reservoirs

[90C26](#) Nonconvex programming, global optimization

Cited in **6** Documents

**Keywords:**

[integrated inventory systems](#); [deterioration](#); [global optimality](#)

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**References:**

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