Penetrative convection in couple-stress fluid via internal heat source/sink with the boundary effects

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Highlights

- Internal heating and boundary effects are observed in a couple-stress fluid.
- Chebyshev pseudospectral-QZ method is used for linear and nonlinear analysis.
- Subcritical instability exists in the presence of internal heat source.
- Heat extraction has stabilizing effect while heat input destabilizes the system.