Reliability of multi-state systems with free access to repairable standby elements

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Highlights

- The reliability of standby systems composed of multi-state elements with constant state transition rates is quantitatively evaluated.
- The standby elements can be repaired, whereas no repairs are possible in operation.
- The multi-state standby element with the best technical state is activated when an operating element fails.
- An iterative algorithm for reliability evaluation based on element state probabilities is proposed.