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Nota di contenuto	Chapter1. Introduction: Risk Assessment -- Chapter.2. Bayesian Network Basics -- Chapter.3. Corrosion Models -- Chapter.4. Statistical Models: Propagation of Uncertainty and Monte Carlo modeling -- Chapter.5. Corrosion Risk Assessment in Pipelines -- Chapter.6. Oil and Gas Production Systems -- Chapter.7.Nuclear Energy -- Chapter.8. Localized Corrosion in Saline Environments -- Chapter.9. BN for reinforced concrete structures -- Chapter.10.Coatings -- Chapter.11. Summary and Future.
Sommario/riassunto	This book represents a compilation of experience from a slate of experts involved in developing and deploying Bayesian Networks (BN) for corrosion management. The contributors describe how probability distributions can be developed for corroding systems and BN can be applied as an ideal framework to deal with corrosion risk. Corrosion

can develop suddenly and grow rapidly after a long incubation period and take many non-uniform aspects, including pitting and stress corrosion cracking, that cannot be mitigated by simply bulking up the system. They also describe how complex engineering structures and systems are influenced by many natural and engineering factors that come together in myriad ways. It provides a broad perspective to the reader on the potential of BN as an artificial intelligence tool for corrosion risk management and the challenges for implementing it.
