1. Record Nr. UNINA9910688212003321 Failure Mechanisms in Alloys / / edited by George A. Pantazopoulos Titolo [Place of publication not identified]: .: MDPI - Multidisciplinary Digital Pubbl/distr/stampa Publishing Institute, , 2020 Descrizione fisica 1 online resource (476 pages) Disciplina 669.94 Soggetti Alloys Lingua di pubblicazione Inglese Formato Materiale a stampa Livello bibliografico Monografia Sommario/riassunto The era of lean production and excellence in manufacturing, advancing with sustainable development, demands the rational utilization of raw materials and energy resources, adopting cleaner and environmentallyfriendly industrial processes. In view of the new industrial revolution, through digital transformation, the exploitation of smart and sophisticated materials systems, the need of minimizing scrap and increasing efficiency, reliability and lifetime and, on the other hand, the pursuit of fuel economy and limitation of carbon footprint, are necessary conditions for the imminent growth in a highly competitive economy. Failure analysis is an interdisciplinary scientific topic. reflecting the opinions and interpretations coming from a systematic evidence-gathering procedure, embracing various important sectors. imparting knowledge, and substantiating improvement practices. The deep understanding of material/component role (e.g., rotating shaft,

social progress and prosperity.

extrusion die, gas pipeline) and properties will be of central importance for fitness for purpose in certain industrial processes and applications. Finally, it is hoped and strongly believed that the accumulation of additional knowledge in the field of failure mechanisms and the adoption of the principles, philosophy, and deep understanding of failure analysis process approach will strongly promote the learning concept, as a continuously evolving process leading to personal and